1973

Bridgewater State College 1973-1974
Undergraduate Catalogue

Bridgewater State College

Recommended Citation

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BRIDGEWATER STATE COLLEGE

1973-1974 UNDERGRADUATE CATALOGUE

Behavioral Sciences  Natural Sciences and Mathematics
Creative Arts  Professional Education
Humanities  Social Sciences

Interdepartmental Programs

For Graduate and Continuing Education programs consult the Graduate Catalogue or Division of Continuing Education List of Courses.
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Bridgewater State College is accredited by the New England Association of Schools and Colleges, Inc. and the National Council for the Accreditation of Teacher Education and is on the Approved list of the American Chemical Society.
"Coiled up in this institution as in a spring, there is a vigor whose uncoiling may wheel the spheres."

Horace Mann, August, 1846, at the dedication of the first building in America devoted to the preparation of teachers.
### CALENDAR FOR THE ACADEMIC YEAR 1973-1974

#### 1973

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**SUMMER SESSION—1973**

- **JUNE** 25-26 Monday-Tuesday.............. Summer Session Registration.

**FIRST SEMESTER—1973**

**SEPTEMBER**

- 4 Tuesday............................ General Faculty Meeting.
- 5 Wednesday........................... Registration.
- 6 Thursday............................. Classes Begin at 8 A.M.

**OCTOBER**

- 8 Monday............................. Columbus Day — No Classes.
- 14-20 Wednesday-Tuesday ............ Second Semester Advanced Registration.

**NOVEMBER**

- 17 Monday............................ First Semester Examinations Begin.

**DECEMBER**

- 17 Monday............................ First Semester Examinations Begin.
- 21 Friday............................ First Semester Examinations End.
- 22 Saturday.......................... Snow Day, First Semester Ends.
- 23 Sunday............................. Christmas Recess and Intersemester Recess.
## 1974

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### SECOND SEMESTER

**JANUARY**

- 14 Monday ........................................ Registration
- 15 Tuesday .................................. Classes Begin at 8 A.M.
- Late Registration.

**FEBRUARY**

- 5 Tuesday ..................................... Last Day of Drop-Add for Semester Courses.
- 18 Monday ............ Washington’s Birthday — No Classes.

**MARCH**

- 8 Friday ............. End of Third Quarter — Classes Suspend at 5 P.M., Spring Recess.
- 25 Monday ............. Classes Resume at 8 A.M.

**APRIL**

- 12 Friday ......................... Good Friday — No Classes.
- 15 Monday .................. Patriot’s Day — No Classes.
- 29 Monday .................. Advanced Registration for First Semester, Fall 1974, begins.

**MAY**

- 7 Tuesday ......................... Honors Convocation
- 15 Wednesday ..................... Reading Day.
- 16 Thursday ........ Second Semester Examinations Begin
- 24 Friday .................. Second Semester Examinations End
- Close of Academic Year.
- 26 Sunday .................. Commencement Day.
Dr. Adrian Rondileau, President, Bridgewater State College
THE COLLEGE

Bridgewater State College, a fully accredited, internationally recognized multi-purpose institution, shares the national tradition of providing high quality education supported in large part by the state. The college is committed to encouraging the broad educational preparation which is equally essential for making a maximum contribution to profession, community and nation, and for developing a sound personal life.

In 1972 Bridgewater served 9500 students from throughout the Commonwealth. Undergraduate students for the 1972-1973 academic year numbered 3650. The Division of Continuing Education added 3500 and summer sessions at Bridgewater and Hyannis an additional 2300.

THE BRIDGEWATER PURPOSE—Founded in 1840 with an initial enrollment of 28, Bridgewater today maintains its historical concern for preparing teachers, but it is an institution also dedicated to the education of students interested in other vocations and professions.

Bridgewater strives to provide an atmosphere of integrity, justice and social concern, and to develop within the student a selfdiscipline which will be evident beyond the classroom. In addition to stimulating his intellectual curiosity, Bridgewater State College also provides the student with the opportunity to understand and appreciate the major contributions to man’s knowledge of himself and of the physical and social world in which he lives.

THE COLLEGE COMMUNITY—In the words of Dr. Adrian Rondileau, president of the institution since 1962:

"Although Bridgewater State College is a rapidly growing institution in number of students, number of faculty and the extending of our buildings and grounds, it strives to be first-rate academically, rather than to be large. It also strives to retain that all-important sense of the personal touch and genuine humanness.

"We of the college are not only proud of our academic excellence, but are equally proud of the sense of College Community in which students, faculty, administrators, alumni, staff and parents have a feeling of belonging, and of working together for great common objectives. This is indeed unusual in this day and age, but it is much more important than it ever has been, if each student is to achieve his full educational potential.

"We welcome students who are interested in these twin goals of academic excellence and a truly cooperative College Community."

HISTORY OF THE COLLEGE—The Bridgewater story began in the second quarter of the nineteenth century, a period of tremendous political and intellectual growth in the United States, a period when movements toward more popular government, the extension of the franchise and the "rise of the common man" made urgent the need for better public schools and better trained teachers.

Horace Mann, already a distinguished Boston lawyer, in 1837 resigned from his practice and became the first Secretary of the Massachusetts Board of Education. With
the support of such educational leaders as James G. Carter of Lancaster, the Reverend Charles Brooks of Hingham, and the Honorable Edward Dwight of Boston, he persuaded the General Court to establish three normal schools for the training of teachers on a three-year trial basis.

Bridgewater was the third of these and, six years later, was the first normal school in America to have a building erected specifically for its own use. It is also the first permanent location of teacher education in America.

"Coiled up in this institution as in a spring" said Horace Mann at the dedication of the building, "there is a vigor whose uncoiling may wheel the spheres."

Nicholas Tillinghast, a graduate and former instructor at West Point Military Academy, became the first principal. Seven men and 21 women were admitted to Bridgewater’s first class on September 9, 1840. Mr. Tillinghast served for thirteen years and when he retired the school was no longer an experiment, but a well-established part of the State’s educational system. Its students were already taking the lead in establishing normal schools in Rhode Island, Illinois and Missouri.

Marshall Conant, the second principal (1853-1860), made many changes in the curriculum, especially in the areas of history and the sciences.

Albert Gardner Boyden (1860-1906) instituted a period of growth and development that was continued by his son and successor, Arthur Clark Boyden (1906-1933). Under the Boydens, Bridgewater drew students from all over the United States, Europe, Latin America, Japan and Burma. Teacher training schools in Armenia and Japan in particular owe their establishment to Bridgewater graduates of this period.

Each of the succeeding presidents, Dr. Zenos Scott (1933-1937), Dr. John Kelly (1937-1951), Dr. Clement C. Maxwell (1952-1962), and Dr. Adrian Rondileau (1962- ) has brought to Bridgewater the particular leadership needed during his administration, thus endowing the College with an extraordinary continuity of development.

In 1921, Bridgewater was one of the first five normal schools in the State to be empowered to award the Bachelor of Science in Education degree to any person completing a four-year course.

In 1932, Bridgewater, together with other State normal schools, became a State Teachers College.

In 1937 the Graduate School was established. What is now the Division of Continuing Education was added in the late 1940s, thus making available courses during the afternoons and evenings.

In 1960, by act of the Massachusetts Legislature, all state teachers colleges became State Colleges, thus allowing the expansion of the curriculum to make possible the granting of Bachelor of Arts as well as Bachelor of Science degrees.

Bridgewater State College now offers these plus the Master of Arts in Biology and in History, and the Master of Education in Elementary Education, Elementary School Mathematics, Guidance, Instructional Media, Health Education, Reading, School Administration, School Librarianship, Special Education, and Secondary Education with twelve areas of concentration.

In the past few years over $20 million has been invested in new buildings and educational equipment for the College and another $20 million or more is allocated or
anticipated for the near future, thus making Bridgewater State College one of the best equipped educational institutions in the state.

In the words of Albert Gardner Boyden, "Thank God for the Bridgewater spirit of progress, of enlargement of culture, of devotion, of service, of inspiration which has quickened so many thousands of young lives. It has been the animus of the institution from its very beginning and is marching on to multiply its achievement."

**THE CAMPUS TODAY**—Bridgewater State College has some of the most modern and extensive educational facilities in the East, including:

The **Clement C. Maxwell Library**: The $6 million library, newest building on the 200-acre campus, can accommodate 2500 students and has a capacity of 425,000 books. It is named for Dr. Clement C. Maxwell, president of Bridgewater from 1952-1962. Dr. Maxwell, who believed that a "library is the heart of a college," worked diligently to make the library a reality.

The library now has approximately 110,000 volumes and subscribes to more than 1000 periodicals and newspapers. These are supplemented by microfilm and microfiche holdings and the viewers and reader-printers necessary to utilize them. The library subscribes to ERIC, a nation-wide pooling of information on education and allied social sciences, and also has available facilities to produce ERIC materials. A curriculum center for teachers in training and in the field offers a large sampling of current texts and materials interpreting trends and research in the area of education. Indexes and abstracts are available in specialized areas to support curriculum needs and there is a large reference collection. Suggestions from students for new acquisitions are given careful consideration and all books are selected in consultation with the faculty.

In addition to classrooms and seminar rooms, the library contains a small auditorium, a media center, a large reception area, offices, a conference room and a browsing room. There is a typing area for students and 400 individual study areas are scattered throughout the four-story building. There is a special collections room and space for exhibits and art shows. The Library Science Department is located on the second floor.

The special collections include:

- An extensive collection of children's books.
- The Theodore Roosevelt Collection, donated by Dr. Jordan Fiore, director of the Division of Social Sciences.
- On ultra-microfiche the 20,000-volume "Library of American Civilization" and the 2500-volume "Library of English Literature: Beginnings through 1660."
- A special collection of books about Bridgewater State or by Bridgewater authors.

Maximum accessibility to materials is provided through open stacks for all books and reference materials; by an inter-library loan service among Bridgewater State College, Wheaton College, Southeastern Massachusetts University and Stonehill College; by a centralized, divided card catalog; and by the presence at all times of a professional reference librarian.
Study is facilitated by 60 dial-access carrels located throughout the library and by the availability of listening rooms. Additional carrels are designated for use by the faculty or for students by special arrangement.

The Student Union Building: The $6 million Student Union Building, located across a mall from the library facing the Marshall Conant Science Building, serves the varied social and cultural activities of the campus.

The Student Union complex includes a theater wing housing a 1450-seat auditorium equipped with stage equipment rivaling that of most professional theaters. There are dressing rooms, rehearsal rooms, a shop area, a costume room, television and radio studios, listening booths and offices and classrooms for the Speech and Theater Department.

The building also contains colorful lounge areas, conference rooms, a reception room that can accommodate 900 people, a snack bar and a formal dining room. The wing housing the 750-seat cafeteria also has a Student Government room, offices for the college newspaper, a hobby shop, rooms for various student organizations and game rooms. The Student Union building also is home to the campus F.M. station, WBIM, which broadcasts at 91.5.

The College Bookstore is located on the main floor of the Student Union building. The bookstore offers a complete textbook service, an extensive paperback presentation in a variety of subject matter, stationery and school supplies, gift and boutique items, photographic supplies and service, typewriter sales, rentals and service, clothing, art supplies and other items and services.

The Marshall Conant Science Building: Modern equipment housed here for the use of students in the Division of Natural Sciences and Mathematics includes a Varian T-60 nuclear magnetic resonance spectrometer with computer of average transits in the Chemistry Department; the Norelco X-ray diffractometer with powder camera and Laue camera for Earth Sciences and Geography; an AEC-approved laboratory for nuclear physics; a Digital Equipment Corporation PDP-8/I computer; meteorological equipment that includes a pyro-heliometer and a precision anemometer.

In addition, there are five acres of botanical gardens and a 20-by-80-foot greenhouse. Additional equipment is itemized under the various departments.

The John J. Kelly Gymnasium: Hub of the Departments of Health and Physical Education, the building contains two gymnasiums, a pool and rooms for Health and Physical Education classes. Equipment includes a treadmill, a cardio-tachometer and bicycle ergometers for the study of the physiology of exercise.

The intercollegiate athletics program, as well as extensive intra-mural and recreation programs for both men and women, are centered at Kelly Gymnasium.

Outdoor athletic facilities include a football-soccer field with permanent seats for 3000 and portable stands for an additional 750; a varsity baseball diamond; a 440-yard track covered with a cork composition surface; space for field events; 20 tennis courts; four softball fields; six fields that can be used for field hockey, lacrosse or soccer; areas for archery and golf classes, and a ski slope surfaced with synthetic ski mats.
Other buildings: Located west of the Student Union, across the quadrangle, is Boyden Hall, the administration building. An outstanding example of traditional campus architecture with imposing white columns and ivy-covered red brick, Boyden provides a compatible contrast with the modern library and Student Union. One wing of the building houses the Horace Mann Auditorium, used now for smaller groups since the construction of the Student Union.

Close to the Administration Building, at the corner of Grove and Cedar Streets, is Gates House, the home of the presidents of Bridgewater, now the residence of Dr. and Mrs. Adrian Rondileau.

Across Grove Street is the Martha M. Burnell School, the laboratory school for Bridgewater students in the Bachelor of Science in Education Curriculum. The school has four grades and a kindergarten. Juniors do their supervised student teaching at Burnell. Classes from the college often meet at the school to observe demonstration lessons provided by the Burnell School faculty.

-campus residence halls—Newest of the residence halls are the two opened in 1967 on Great Hill.

-Durgin Hall accommodates 300 men. Great Hill has 300 women. The lower floor of each building contains reception rooms, a conference room, music room, post office, laundry room and a vending machine room. A cafeteria for both men and women is located in Durgin Hall.

-Tillinghast Hall, first of all the residences, houses 82 women students. The hall is named for the first principal of the college, Nicholas Tillinghast. Located on the quadrangle between the Administration Building and the Student Union, the residence includes the dining hall for students from the lower campus.

-Scott Hall, at the corner of Summer and Grove Streets on the lower campus, is a residence for 100 men.

-Woodward Hall, named for Eliza Woodward, a revered teacher who served the college for many years, has 85 double and triple rooms and accommodates about 200 women.

-Pope Hall, across the campus on Park Avenue next to the botanical gardens, houses 114 women. The College Infirmary is on the first floor.

The building is named for S. Elizabeth Pope, former Dean of Women, a beloved friend of the college.

All the residences have reception rooms and laundry facilities.
STUDENT SERVICES

Students have problems and needs that often require special forms of help or personal guidance at different stages of college experience. Among these are questions and concerns about one's educational program and academic achievement, housing, finances, health, social adjustment, part-time work, and post-college study or employment.

To assist students in making adjustments, wise decisions, and intelligent plans, the College has provided professional staff services in the major areas of student needs.

Orientation

During pre-registration the orientation of students new to Bridgewater State College begins. Students are then advised on their academic program and given opportunities to meet each other and the faculty. An orientation course for all freshmen is required with class meetings once a week throughout the first quarter of the college year. Discussion centers around the philosophy and resources, the standards, requirements, policies, and traditions of the College. The program includes assemblies, discussion meetings, activities of various kinds, and get-togethers in informal settings, planned and carried out by students, faculty, and administrative staff.

General Counseling

The faculty-student relationship is the center of college counseling, for it is the faculty who are best qualified to guide the student in his academic and professional growth. Each freshman is assigned a faculty adviser. Additional guidance by a professional counselor may be arranged either through the Office of Student Services or through the Clinical Psychologist. For advice with regard to health matters, students may confer with the members of the College Health Service staff. If psychiatric assistance is needed, appropriate arrangements may be made to secure such help.

Academic Counseling

Faculty counselors, departmental advisors, and the college professional counselors are available to students with academic problems.

The Faculty Committee on Academic Standing also offers counseling services. It interviews students whose academic standing is unsatisfactory at the end of each semester to determine the probability of success if the student is allowed to continue. To those students dismissed for academic reasons, the Committee frequently offers suggestions for other academic or vocational preparation.

College Reading Laboratory

The College Reading Laboratory at Bridgewater State College conducts courses in the technical skills needed to complete college-level reading and studying tasks efficiently and effectively.
STUDENT SERVICES

Full-time undergraduate and graduate students may utilize the services of the Laboratory for the development of their own skills through personally prescribed independent study programs.

Opportunity is also provided for guidance and direction in carrying out independent research projects in the areas of reading and study skills.

No academic credit is given at this time for work carried out in the College Reading Laboratory.

Registration and information regarding the services offered may be obtained by contacting Dr. Peter A. Bizinkauskas, Director, College Reading Laboratory, Maxwell Library.

Veterans Affairs

This office offers services in the areas of general information on the current G.I. bill, counseling, educational guidance and assistance in job opportunities. It has direct contact between the veteran and the Veterans Administration Regional Office in Boston or Providence.

Those students eligible for educational benefits are:

Veterans of post-Korean conflict period and Vietnam era and service men who were released after January 31, 1955 and who fulfilled all the necessary requirements of the G.I. Bill.

Orphans, wives, and widows of veterans whose death or permanent total disabilities were service connected.

Wives and children of service men missing in action or prisoners of war, for more than 90 days.

For further information, contact Mr. Edward G. Elias, Veterans Affairs Officer, Boyden Hall.

Social and Cultural Events

A wide variety of activities is sponsored by college and student organizations to meet the many different needs and interests of the college community. Through formal and informal activities, plays, recitals, exhibits, concerts, dances, forums, speakers and off-campus trips, opportunities for enrichment are ever present. Such activities help students develop understandings and skills that enrich and extend classroom learnings and form an integral part of the college program.

Athletics

The physical education departments provide a wide range of intercollegiate, intramural and recreational activities for men and women. The objectives of the programs are to promote qualities of leadership and sportsmanship; enhance emotional and social development; and provide opportunities for the development of physical skills.
Intercollegiate athletics play an important part of life on the College campus. They provide for a high level of competition with other colleges in the eastern part of the United States. Intercollegiate sports for men include: baseball, basketball, cross country, football, golf, ice hockey, swimming, tennis and track and club wrestling. Those for women include: basketball, field hockey, lacrosse, softball, tennis and volleyball. The College is a member of the National Collegiate Athletic Association, the National Association of Intercollegiate Athletics, the Massachusetts State College Athletic Conference, the Eastern College Athletic Conference and the National, Eastern and Massachusetts Associations for Intercollegiate Athletics for Women.

Recreation Programs

The intramural program provides competitive experiences in a variety of team and individual sports and includes modern dance, swimming, and gymnastic clubs.

The recreation program provides many opportunities for social involvement. Some of the highlights of the program include mountain climbing, camping, biking and skiing trips as well as many seasonal activities.

Health Services

A hospital suite is located on the first floor of Pope Hall. The services of a nurse are available to all students of the college twenty-four hours each day, seven days a week. A doctor is on duty three days a week for four hours each day.

Placement Service

The Placement Service assists in referring seniors to employers for full-time job opportunities, and in placing alumni in their major fields of concentration. In addition, on-campus interviews are arranged for students in their senior year. These services are available without charge to all students and alumni who register at the Guidance Office or Placement Office.

Student Employment

Opportunities for part-time employment are available for students who wish to earn money while studying at the college. Applications may be procured from the Financial Aid Office.

Religious Groups

In the neighborhood of the campus there are available various religious groups and churches, Catholic, Protestant, and Jewish, with which interested students may affiliate. A listing of these can be obtained in the Office of the Dean of Students.
ADMISSIONS

The basic aim of admissions requirements is to assure the selection of students who have demonstrated the ability and promise necessary for success in college studies.

Freshman Admissions

Each candidate is considered on the basis of the following requisites:

A. Secondary school preparation. Candidates for admission must have a high school diploma from an accredited secondary school or the equivalent preparation. Degree candidates desiring a major in Mathematics must present three units in college preparatory mathematics. An official transcript of the candidate’s secondary school academic record, including the grades of the first marking period or the first quarter of the candidate’s senior year, must be filed by the high school.

B. College Entrance Examination Board. All candidates must supply the following information:

1. The College Entrance Examination Board’s Student Descriptive Questionnaire (SDQ).
2. The results of the Scholastic Aptitude Test (preferably by January).

C. Personal Qualifications. Confidential data concerning the candidate, including the recommendation of the high school principal and comments by teachers and counselors are given consideration in determining the fitness of the candidate for the proposed program of study.

Dates of Admissions

Bridgewater State College has a “rolling admissions” policy. There is no one date on which the College notifies all applicants simultaneously of their acceptance. Candidates are notified on a continuing basis over a period of several months, beginning about January 15.

If the number of qualified applicants exceeds the number that the facilities of the College will accommodate, a waiting list is established.

Those candidates who have not met the requirements for admission by March 15 may jeopardize their chances of receiving consideration for acceptance since the College may close freshman admissions at this time.

Transfer Admissions

A. Transfer candidates will be evaluated for admission on the basis of their previous college academic record and must supply transcripts of that record.

B. The College will accept credits of a C or better earned in equal or comparable courses from accredited institutions of higher education. (Maintenance of a C average does not insure transfer to Bridgewater State College).
C. Whenever possible, degree credit will be granted for course work completed at other institutions of higher education. Courses which do not fit the degree program may be counted as fulfilling the free elective requirements of the four-year curriculum. The transfer student will be required to fulfill the same degree requirements as any other student.

D. Honors courses, programs of independent study, Advanced Placement and College Level Examination Program (CLEP) and advanced standing credit earned at other institutions of higher education will be accepted at Bridgewater.

E. Ordinarily a student is expected to complete a minimum of two academic years (i.e. one half) of his work at the College, and in no case will the College grant its baccalaureate degree with less than one full year of academic work taken at Bridgewater State College.

F. The number of transfers accepted by Bridgewater will be determined by existing vacancies in the various degree programs and the number of applicants determined eligible under the above guidelines. Among qualified and eligible transfer applicants, priority in admissions will be given to transfer students in good standing from within Massachusetts public higher education.

G. All applications must be filed by December 1 for January admission, and by April 1 for September admission.

The College reserves the right to change admissions requirements at any time without advanced notice.

Health

All candidates, regardless of the intended area of study, are required to have a health examination before entrance. Information concerning such examinations is forwarded to prospective students after notification of acceptance. The candidate, if a teacher-training program is the intended area of study, must be in good physical and mental health, free from any disease, infirmity, or other defect, which would render the candidate unfit for public school teaching.

Advanced Placement

Advanced placement with college credit and reduction of distributions of the College requirements is granted to entering students who have demonstrated college-level proficiency through established procedures.

Students entering the College as freshmen or as transfer students may elect to challenge General Education courses required by the College through the general and/or subject examinations of the College Level Examination Program (CLEP), and the Advanced Placement Examinations of the College Entrance Examination Board.
Residence Hall Placement

Requests for residence hall placement far exceed the openings available. Placement is based on the total evaluation of the candidate and the distance from one's permanent place of residence. Although the College does not have resident facilities for married couples, marital status as such is, of course, not a factor in the assignment of a room in a residence to any individual student.

PROGRESS — Program for the Recruitment and Retention of Special Students

PROGRESS was established to help high school graduates who possess both the motivation and potential necessary to achieve a college degree, but who because they are members of a minority group or come from a background of poverty have not been properly prepared to undertake a regular freshman program.

The Scholastic Aptitude Test (SAT) should be taken even though no great emphasis will be placed on the scores when determining admission through PROGRESS. The high school performance of students applying through PROGRESS will be judged on the basis of identifiable achievement patterns over the high school experience rather than on class standing or rank.

Letters of recommendation from guidance counselors, teachers, and in some cases community leaders, are of great assistance in evaluating an applicant's ability to do college-level work.

Each student admitted through PROGRESS is assigned an academic adviser and will be encouraged to carry courses and course loads suitable to individual needs. Students must carry at least nine semester hours, but no more than 15 hours in the freshman year.

Tutorial services are available for all courses. The courses taken by PROGRESS students are the same as those taken by all students at Bridgewater. PROGRESS students must meet the same degree requirements for graduation as do all other students at the College.

Financial assistance is available through these federal aid programs: 1. Economic Opportunity Grant; 2. National Direct Student Loan; 3. College Work-Study Program. The amount of financial assistance each student will receive is dependent upon individual need as demonstrated in the standard financial aid application form (Parents Confidential Statement).

New England Regional Student Program

Bridgewater State College participates in a regional cooperative program administered by the New England Board of Higher Education. The program—the New England Regional Student Program—permits qualified New England residents to study with in-state tuition and admission privileges in certain programs at any of the state universities, state colleges, two-year colleges and technical institutes.

The program's purpose is to expand higher education opportunities for New England residents by making available on an equal basis those courses not commonly offered at every institution.
Information about the program can be obtained from the Bridgewater State College admissions office, from any guidance counselor, or from the New England Board of Higher Education, 20 Walnut Street, Wellesley, Mass., 02181.

Massachusetts State College Policy on Non-Discrimination

It is the policy of the Board of Trustees of the Massachusetts State Colleges that in matters of college admissions, the employment of professional and non-professional personnel, and all other personnel matters in the State Colleges individuals will be evaluated on their merits without respect to their race, color, creed, national origin, age or sex, as prescribed in applicable federal and state law.
FINANCIAL INFORMATION

The following summary indicates as nearly as possible the regular expenses for which each student must plan in an annual budget.

Tuition Fees for Residents of Massachusetts

1. $300.00 a year payable in two installments at the beginning of each semester.
2. $10.00 a semester hour—Courses for special day students.
3. $22.00 a semester hour—Program of Continuing Education.
4. $15.00 a semester hour—Auditor in Program of Continuing Education.

Tuition Fees for Non-Residents of Massachusetts

1. $600.00 a year payable in two installments at the beginning of each semester.
2. $21.00 a semester hour—Courses for special day students.
3. $29.00 a semester hour—Program of Continuing Education.
4. $15.00 a semester hour—Auditor in Program of Continuing Education.

Initial Admission Registration Fee

Each applicant for admission to Bridgewater State College must pay a registration fee of $50.00 following notification of acceptance of admission. This fee will be deducted from the tuition of students who attend and will be forfeited by those who do not attend.

Textbooks and Supplies

Students are expected to purchase all necessary textbooks and supplies at an approximate expense of $150.00 a year.

In addition, all male students required to take Physical Education must purchase a gym uniform. The cost is approximately $25.00.

Board and Room (In effect for 1972-1973)

Each applicant for a residence hall reservation must pay a deposit of $50.00 following notification of acceptance to the college. This deposit will be deducted from the total residence hall fee of students who attend. It will be forfeited by those who do not enroll. Students who enroll for residence and then decide to commute will also forfeit their deposit.

Rates for residence hall accommodations range from $350.00 to $580.00 per year depending on the facility occupied by the student. The dining hall charge for the year is $480.00 (including weekends). All students residing in College residence halls must subscribe to the College Dining Hall charges. Payments are required in two installments payable at the beginning of each semester. These charges, like all others, are
subject to change at any time by the Board of Trustees. After one day of residence, semester room rents are non-refundable whether a student leaves the residence to commute or withdraws from the College.

Students who are assigned to residences will be required to pay a $25.00 "Dormitory Damage Security Deposit." Damages specifically performed by an individual student or an identifiable group of students will be billed at the time of the assessment of damages. General and assessable damages will be prorated and paid for from the students' security deposit. Unused deposits shall be refunded to the students.

**Required Annual Fees***

- $10.00 Health Fee........................................... $5.00 per semester
- $10.00 Library Fee........................................... $5.00 per semester
- $2.50 Commencement Fee.................. Transfer students assessed retroactively
- $25.00 Student Government Association Fee
- $27.00 Athletic Fee
- $35.00 Student Union Building Fee

**Other Required Fees**

- $5.00 — 10.00 Laboratory Fee .................. Charged in all laboratory science courses and in a number of studio and practicum courses
- $12.00 Physical Education Fee................. Required of all freshmen and transfer students
- $5.00 Placement Fee ................................... Required of all seniors
- $10.00 Student Identification Card................ Required of all freshmen and transfer students
- $5.00 Late Registration Fee .................... Assessed to students registering after the official registration period

Unless stated otherwise, all fees are payable the first semester of the academic year and are non-refundable.

*Must be paid by all full-time students who are in attendance for all or part of the academic year.
Refund Policy for Official Withdrawal from the College

Tuition and Food Service:
- 80% within the first two weeks of classes;
- 60% during the third through sixth week.
- After the sixth week of classes no refund is allowed.

Residence Halls:
- No refund for room charge will be given after one day of occupancy.

Financial Aid

Bridgewater State College participates in several federally sponsored programs of financial aid. For students accepted for admission who show a proven financial need, funds are available in the National Direct Student Loan Program (N.D.S.L.) which allows the student to borrow money as an undergraduate or a graduate student. Repayment of the loan at 3% interest begins 9 months after graduation and may extend over a 10-year period. Special cancellation is allowed for students who go into the teaching profession in Special Education and teaching in low income communities.

For students who show an exceptional financial need, the Economic Opportunity Grants (E.O.G.) program is available. Up to one-half of the total financial need may be awarded in a grant to the exceptionally needy student. These grants are renewable providing the student makes application each year and continues to show the same proven need.

A third program for needy students is the College-Work Study Program (E.O.P.). Students are assigned to various departments or agencies on and off campus and are paid an hourly rate, in accordance with campus policies and Federal regulations.

Bridgewater State College will also participate in the new Basic Opportunity Grant Program as provided in the Higher Education Acts of 1972. The implementation of this entitlement program is subject to guidelines that will be forthcoming from the Office of Education.

Particular attention should be given to the Massachusetts Board of Higher Education Scholarship. Students intending to apply for financial assistance at Bridgewater State College must as a pre-requisite for application, apply to the Massachusetts Board of Higher Education to enroll in their Scholarship Program. This Scholarship for Massachusetts residents requires both a Parents' Confidential Statement and a Massachusetts Board of Higher Education Scholarship Form. These forms can be obtained in High School Guidance Offices or from:

Board of Higher Education
Scholarship Office
182 Tremont Street
Boston, Massachusetts 02111

Opportunities also exist for student employment on campus not related to the Federally sponsored program of College-Work-Study. Applications for student employ-
ment in the College Bookstore, Library, Dining areas, Student Union, and Physical Education department can be obtained in the Financial Aid Office.

The Massachusetts Higher Education Loan Plan (H.E.L.P.) is another source of financial assistance for the education of students from middle or upper income families. A student may borrow up to $1,000.00 a year, but not in excess of $5,000.00 for an undergraduate program. In addition he may borrow $1,500.00 a year for a graduate program, but not in excess of $7,500.00 total for both undergraduate and graduate program. Students who wish to apply for H.E.L.P. loans should go directly to their local banks to obtain the necessary application forms. Inquiries regarding this program should be addressed to:

Massachusetts Higher Education Assistance Corporation
511 Statler Building
Boston, Massachusetts 02116

Since Bridgewater State College is a participating member of the College Scholarship Service of the College Entrance Examination Board, all loans, grants, and work-study awards are made on the basis of demonstrated financial need as determined by the need analysis system derived from information supplied in the Parent's Confidential Statement. All applicants may obtain the Parent's Confidential Statement through their high school guidance counselors, or from the Financial Aid Office. Parent's Confidential Statements should be mailed to College Scholarship Service, Box 176, Princeton, New Jersey, 08540 no later than March 15 preceding the academic year for which they have been accepted. Supplementary applications for financial aid should be requested by writing directly to the Financial Aid Officer, Bridgewater State College, Bridgewater, Massachusetts 02324.

Veterans with service credited to the Commonwealth are exempt from tuition payment at the College. To be eligible, veterans must have served more than 180 days in the U.S. Armed Forces after February 1, 1955.

Information on exemption certification may be obtained from the Veteran Affairs Officer in Boyden Hall.
STUDENT LIFE REGULATIONS

A student is admitted to Bridgewater State College in the expectation that he will accept and abide by the high standards of conduct and scholarship established by the faculty, administration and student governing boards. The College reserves the right to require any student to withdraw who does not maintain acceptable academic standing. The College also reserves the right to dismiss with due process a student who does not meet the requirements of conduct and order, or whose behavior is inconsistent with the standards of the College.

Attendance Policy

Probationary students and first semester freshmen are allowed no unexcused absences. Other students are expected to use judgment and discretion in regard to class attendance.

Alcoholic Beverage Policies

Bridgewater State College abides by the laws of the Commonwealth in regard to the sale, consumption, transportation, and possession of alcoholic beverages on the campus. Additional information regarding specific policies may be found in the college handbook.

Dress Policy

Although there are no regulations as such concerning the dress of students at Bridgewater, students are expected to use good judgment in deciding what is appropriate for different activities. An attractive appearance with a neat and clean standard of dress is expected of all students at all times. Good sense should indicate where sports and work clothes should be worn and when more formal attire is appropriate.

In compliance with health and safety laws of the Commonwealth of Massachusetts it is required of all students to wear shoes in all campus buildings.

Drug Policies

The use or possession of illegal drugs on the campus is sufficient reason for expulsion from the College.

Housing

The College maintains no off-campus housing program nor does it have resident facilities for married couples. Single students who do not live in their own family homes or in college residence halls must register their address with the Office of Student Services. All students under twenty-one must present a statement from their parents or guardian absolving the College from all responsibilities concerning this type of housing. Students who are on a waiting list for space in a College residence hall are not guaranteed living accommodations within any specified time.
Insurance

The College does not carry insurance which will compensate students or their families for losses suffered on campus because of fire, theft, water damage, etc. It is advisable to check the extent of current home insurance or to seek coverage through a special policy.

Students interested in group Blue Cross-Blue Shield coverage should contact the Brockton Office of Blue Cross-Blue Sheild. The college also offers health and accident insurance plans through the John C. Paige Insurance Co. of Boston. Information on this insurance is available at the Office of Student Services.

Traffic and Parking Regulations

Freshmen and Sophomore students living in Residence Halls are not allowed to have a motor vehicle on campus.

Appropriate parking areas on campus have been assigned to faculty, staff and students. During Fall Registration, decals and copies of Traffic Control Policies will be distributed designating these areas as well as explaining the traffic regulations set forth by the Traffic Control Committee.

A decal does not guarantee a parking space. Parking is on a "first come—first served" basis in an assigned area.

Disciplinary Suspension Procedures

The Deans of the College review all charges and pertinent information concerning the particular case. This information may be submitted by student officers or other members of the College community. Based on this data a recommendation for suspension is presented to the President of the College for his appropriate action or non-action. The President then reviews the case, forms an independent judgment on the basis of all the facts available, and makes his final decision.

Recommendations for suspension are usually made in cases of students already on a disciplinary probation status or after behavior which has seriously threatened the safety and security of other students. In all other cases of misconduct students are placed on disciplinary probation and their parents are notified. If the reasons for dismissal are not heinously offensive, students are permitted to voluntarily withdraw from the College.
ACADEMIC POLICIES

The regular academic year consists of two semesters of sixteen weeks each. Curricula leading to baccalaureate degrees are so planned that a student pursuing a normal program will ordinarily be able to complete the requirements for graduation in four years or eight semesters.

Graduation Requirements

Degrees will be awarded to candidates who have fulfilled the following:

1) A MINIMUM of 120 semester hours of credit, distributed according to requirements of either the Bachelor of Arts or the Bachelor of Science curriculum;
2) ANY ADDITIONAL semester hours of credit required for the major program in which the candidate has matriculated;
3) completion of at least one year of residence at Bridgewater;
4) a cumulative grade point average of 2.0;
5) clearance of all financial debts to the College.

Degree Applications

All students who expect to receive their degree from Bridgewater State College are required to complete a formal degree application. These applications are available in the Registrar’s Office.

Students should obtain the application during the second quarter of their senior year, and with their Department Chairman’s assistance, complete and return the application to the Registrar’s Office no later than December 1 of that year.

Grading System

The college uses the letter-grade system of marking to indicate the student’s relative performance; A—Superior; B—Good; C—Satisfactory; D—Poor; E—Failure; WP—Withdrawn Passing; WF—Withdrawn Failing. In computing averages, grades are assigned the following numerical values: A—4; B—3; C—2; D—1; E—0. Promotional averages are annually cumulative: for freshmen to advance to sophomore status, an average of 1.5 is required; to advance to junior status, an average of 1.75; to advance to senior status and to be eligible for graduation, a cumulative average of 2.0 is required.

An incomplete shall be given only when a student has missed the final examination for good reason or has not completed a major assignment which can be finished within a short time. Incompletes must be made up no later than the fourth week of the regular academic semester following that in which the Incomplete was recorded. A grade of "E" will automatically be entered on the transcript of any student who fails to meet this requirement.

All courses failed at Bridgewater and subsequently passed either in the day or evening sessions at Bridgewater shall be utilized in quality point ratios. Semester hours
for a course failed and later passed at Bridgewater shall be used only once in computing the Q.P.A., and an average of the grades achieved in both courses (failed and made-up) shall be used in determining the total number of quality points for the course.

Plagiarism

Academic honesty is expected of all students. Plagiarism and cheating are not condoned and are subject to an academic penalty, which may be failure for the course in which the violation took place. A record of the violation is kept and repeated offenses may result in suspension or dismissal from the College.

Withdrawal from Courses

During the first three weeks of a semester or the first eight class days of a quarter students may withdraw from courses and no grade will be recorded.

If, for some serious reason, a student wishes to withdraw from courses after this period, written permission must be secured (on forms provided by the Office of the Registrar) from the Dean of Undergraduate Studies. Only if such a form is filed in the Registrar’s Office and the second copy returned to the head of the department in which the student is majoring may the grade of WP or WF be recorded. In all other instances a grade of “E” shall be given.

Student Loads

Freshmen are expected to carry 15 credit hours each semester in those areas which are outlined by their declared major. A lighter load may be carried only under exceptional circumstances such as illness, and then only with written permission from the Dean of Undergraduate Studies.

Full-time upperclassmen must carry a class load of 12 to 18 semester hours, including evening courses as well as day courses. Students on probation are limited to a maximum of 15 semester hours.

Special Students

The term special student refers to students who have been given permission to take a part-time load (less than 12 semester hours).

Transfer of Credit After Admission

Approval for Bridgewater Summer Session and Bridgewater Continuing Education courses, and any courses to be taken at another institution, must be obtained in advance from the appropriate department chairman and the Dean of Undergraduate Studies. Application forms are available in the Office of the Registrar. Applications for approval of a course from another institution should be accompanied by the appropriate catalogue from that institution. Transcripts for Summer Session courses or Continuing Education courses must be submitted to the Registrar’s Office within 6 weeks after completion of the course. This transfer of grades is not done automatically. It is the
student's responsibility to have Continuing Education grades sent to the Registrar's Office.

Credit by Examination

The College encourages qualified students to meet certain graduation requirements through "Credit by Examination." Currently, the College will award credit for successful completion of the College Level Examination Program's (CLEP) general or subject area examinations. In addition, certain departments offer their own examinations for which credit can be awarded. Additional information can be obtained from the Office of the Academic Dean.

Warning, Probation, Dismissal

Warning notices are given at mid-semester to all freshmen and sophomore students who fail to maintain a "C" average in any course.

At the end of each semester, all students whose averages fall below the required minimum standard are subject to dismissal. Those students with a reasonable chance of raising their total average to the acceptable level within one semester may be placed on probation, on the recommendation of the Faculty Committee on Academic Standing and by approval of the Academic Dean.

Withdrawal from the College

Any student who must prematurely end his studies at the College should withdraw officially to insure honorable dismissal. Official withdrawal forms may be obtained from the Office of the Registrar and must be signed by the Academic Dean. Should the student leave the college without giving official notification, failing grades will be recorded for all courses.

Readmission

Students who withdraw from the College in good academic standing may re-enter the College at some later date. Readmission applications are made through the Office of Admissions. Applications must be filed not later than June 1 for first semester readmission and not later than December 1 for second semester readmission. No priority will be given for residence hall assignments.

Students who have been separated once from the College for academic reasons may not take any courses in the College, either in the Day Session or in the Division of Continuing Education (late afternoon-evening session) for at least one year, not including the summer session. Such students may apply for readmission, through the Office of the Director of Admissions after at least one full year of not taking courses at the College as previously indicated. A letter to the Director of Admissions must be written asking for consideration, not later than June 1 for first semester readmission and not later than December 1 for second semester readmission. An interview will then be arranged by the Director, and following this interview the applicant will be duly notified. Such students, if they are readmitted, will be placed on academic probation.
for one semester and must achieve and maintain a grade point average of at least 2.0 in order to continue. Failure to achieve this required probationary standard will necessitate academic dismissal. No priority will be given for residence hall assignments.

It is recommended that readmission applicants give evidence of at least one year of academic work at some other institution of higher learning. Men who enter military service may apply for readmission when duly separated from the services.

All course work taken elsewhere will not necessarily be accepted as transfer credit.

Honors Program

The general aim of the Honors Program is to encourage students to do more intensive, independent, and creative work. More specifically, its aims are: to encourage superior and interested students to achieve their fullest intellectual potential through critical thinking, scholarship, and research; to help these students improve their skills in oral and written expression; to present an opportunity for frequent and close association of able students for intellectual exchange among themselves and with faculty members and other scholars; and to create an atmosphere which fosters intellectual, artistic, and academic achievement.

The following departments are at present participating in the Honors Program: English, History, Mathematics, Speech and Theatre Arts, and Women's Health and Physical Education.

Students who are interested should consult the Chairman of the Honors Program Committee in their department or members of the College Honors Committee.

Dean's List

The Dean's List is published at the termination of each academic year to honor academic achievement. A 3.3 average is required.

Eight-Semester Time Limit as a Full-Time Student

Students are allowed a maximum of eight full semesters in order to complete degree requirements as a full-time student in the day session. For transfer students, of course, from those eight semesters there will be subtracted the number of semesters' work granted in transfer credit.

If a student does not complete work for his degree during eight full semesters, he will no longer be considered a full-time day session student and he will be expected to complete his work outside the Day Session Program, either in another institution or in our Continuing Education Program, which operates in the summer and in the late afternoon and evening.

Standards for Representing the College

In order to represent the undergraduate College in intercollegiate competition, or as a member of the student government, all four of the following circumstances must be true about a student:
ACADEMIC POLICIES

1. He must be in good academic standing.
2. He must be a full-time student, which is defined as carrying a minimum of 12 semester hours of credit.
3. He must not have completed his undergraduate degree requirements.
4. He must have completed not more than eight full semesters in the day session. Such eight full semesters in the case of a transfer student should include the number of semesters' work granted in transfer credit.

Graduation With Honors

Academic excellence for the baccalaureate program is recognized by awarding degrees summa cum laude (cumulative average of 3.8), magna cum laude (3.6), and cum laude (3.3).
Graduation with Departmental Honors is recognized by inscribing on the diploma the phrase "With Honors in (the appropriate field)."
DEGREE PROGRAMS

Bridgewater State College is authorized to grant the degrees of Bachelor of Arts, Bachelor of Science, and Bachelor of Science in Education. The Bachelor of Science in Education prepares students for teaching in the elementary schools, for teaching Health and Physical Education at all levels, and for teaching in the area of Special Education. The Bachelor of Arts and Bachelor of Science degrees allow students to select from fifteen areas, and provide preparation for secondary school teaching (if education is elected as a minor), graduate school, and fields of endeavor related to the major area of study. Majors are currently offered in:

HUMANITIES AND CREATIVE ARTS: English, French, Speech and Theatre;
SOCIAL AND BEHAVIORAL SCIENCES: Anthropology, History, Political Science, Psychology, Sociology;
NATURAL SCIENCES AND MATHEMATICS: Biology, Chemistry, Chemistry-Geology, Earth Science, Geography, Mathematics, Physics

Except for those students in the Humanities and Creative Arts or Bachelor of Science in Education areas, a student may decide, after having chosen a major, whether he wishes to earn a Bachelor of Arts or a Bachelor of Science degree by his selection of free electives. A free elective is any elective which is not used to meet the General Education requirements.

Thus, the Bachelor of Science degree is awarded to those who choose the majority of their free electives in the Social or Natural Sciences, while the Bachelor of Arts degree is awarded to those who choose the majority of their free electives in the Humanities or Creative Arts.

Students are advised to consult with their Department Chairman or major advisor early in their academic career, but no later than the end of the sophomore year, in order to be certain that course selection will allow graduation with the desired degree.

MAJOR REQUIREMENTS

Each student must complete not less than 24 and not more than 36 credits in one of the major fields of concentration. The 24 and 36 credits reflect all courses taken in the major department, including those which are listed under the distribution of General Education Requirements. The student must select his major field by the end of the sophomore year.

MINOR FIELDS OF CONCENTRATION

Education Minor. Students may elect an education minor (see Department of Secondary Education under "Courses of Instruction") by taking a minimum of 18 credits in the sequence recommended by the Department of Education, six of which will be in student teaching.

Other Minors. In general, students may pursue a sequence of courses in cognate areas where such a sequence is possible. See "Courses of Instruction" for individual department programs.
DEGREE PROGRAMS

ADMISSION TO TEACHER PREPARATION PROGRAMS

The programs in professional education at the College are designed as a series of experiences encompassing theoretical knowledge as well as its practical application through student teaching. The goal of the program is the graduation of students with outstanding qualifications upon entering the profession.

All students wishing to join one of the teacher preparation programs offered by the College must make formal application through the Teacher Preparation Office during February of their sophomore year. Application forms may be obtained from the appropriate department chairman.

Criteria for Admission

The Teacher Preparation Office uses a number of criteria for the admission and retention of students in the programs.

1) A matriculated student at the College with a minimum Q.P.A. of 2.0.
2) Speech and English proficiency.
3) Health and physical fitness.
4) Character and personality.
5) Any additional criteria which may be required by the student’s department.

Announcements of acceptance into a program will be made in early April. Students not accepted into a Teacher Preparation program will be referred to the Office of the Academic Dean for replanning of their program of study.
### GENERAL EDUCATION REQUIREMENTS

#### BACHELOR OF ARTS/BACHELOR OF SCIENCE

<table>
<thead>
<tr>
<th>Humanities and Creative Arts</th>
<th>30 credits</th>
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<tbody>
<tr>
<td>A. English Composition</td>
<td>EN 101 &amp; 102 6</td>
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<tr>
<td>B. Literature</td>
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</tr>
<tr>
<td>C. Philosophy</td>
<td>PL 200, 210, 220, 230 3</td>
</tr>
<tr>
<td>D. Creative Arts</td>
<td>Art or Music (except MU 150) 3</td>
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<tr>
<td>F. Creative Arts and Humanities Electives (including up to 12 credits in foreign languages)</td>
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<thead>
<tr>
<th>Social and Behavioral Sciences</th>
<th>18-19 credits</th>
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<tbody>
<tr>
<td>A. History</td>
<td>HI 111 — 112 6</td>
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<tr>
<td>B. Social Science—Block 1</td>
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<tr>
<td>Psychology</td>
<td>PY 200</td>
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<tr>
<td>Anthropology</td>
<td>AN 201, 202, 205, 210</td>
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<tr>
<td>Sociology</td>
<td>SO 202</td>
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<tr>
<td>Geography</td>
<td>ES 261, 262 6</td>
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<tr>
<td>C. Social Science-Block 2</td>
<td></td>
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<tr>
<td>Political Science U. S. History</td>
<td></td>
</tr>
<tr>
<td>Economics</td>
<td>6</td>
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<tr>
<td>D. Massachusetts and United States Constitutions*</td>
<td>1</td>
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<thead>
<tr>
<th>Mathematics &amp; Natural Science</th>
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<tbody>
<tr>
<td>A. Laboratory Science — a one-year sequence</td>
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<tr>
<td>BI 101-102, CH 131-132, ES 181-182 or 192, PH 181-182, CH 200-PH200</td>
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<tr>
<td>B. Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>C. Mathematics and/or Science Electives</td>
<td>6</td>
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*Massachusetts state law requires all students to take a course in the federal and state constitutions. Students may fulfill this requirement by electing HI 221 (U. S. History to 1865). Those who do not elect HI 221 must take PO 273.
DEGREE PROGRAMS

Health

Non-Credit Requirements

A: Library Orientation  (Freshman)  LI 102
B: Freshman Orientation  ED 101
C: Physical Education — six one-quarter courses
   (should be commenced during freshman year)

BACHELOR OF SCIENCE IN EDUCATION —
HEALTH AND PHYSICAL EDUCATION MAJOR

Humanities and Creative Arts  18 credits

A. English Composition  EN 101, 102  6
B. Literature
C. Philosophy  PL 200, 210, 220, 230  3
D. Oral Communication  ST 200  3
E. Elective — Art or Music  3

Social and Behavioral Sciences  18 credits

A. History  HI 221  3
B. General Psychology  PY 200 and either PY 224 or 226  6
C. Electives
   Anthropology, Economics, Geography,
   History, Political Science, Sociology  9

Natural Sciences and Mathematics  12 credits

A. Mathematics  MA 110  3
B. Biology  BI 102, BI 385  6
C. Elective — Biology, Chemistry, Earth Science,
   Mathematics, Physics  3
Non-Credit Requirements

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<tr>
<th>Requirement</th>
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<tr>
<td>A. Library Orientation (Freshman)</td>
<td>LI 102</td>
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<tr>
<td>B. Freshman Orientation</td>
<td>ED 101</td>
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Professional Education

Professional Education courses and other requirements are outlined under "Courses of Instruction," Departments of Health and Physical Education.

BACHELOR OF SCIENCE IN EDUCATION — SPECIAL EDUCATION MAJOR

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<tr>
<th>Category</th>
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<tr>
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<tr>
<td>A. English</td>
<td>6</td>
<td>EN 101, 102</td>
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<tr>
<td>B. Literature</td>
<td></td>
<td>World, English or American</td>
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<tr>
<td>C. Speech &amp; Theatre</td>
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<td>ST 200</td>
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<tr>
<td>D. Art</td>
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<td>E. Music</td>
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<td>MU 150</td>
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<tr>
<td>F. Philosophy</td>
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<td>PL 200, 210, 220, 230</td>
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<tr>
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<td>Social Sciences and Behavioral Sciences</td>
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<tr>
<td>A. History</td>
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<td>HI 111, 112, 221</td>
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<td>B. Psychology</td>
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<td>PY 200, 224, 228</td>
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<td>C. Sociology</td>
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<td>SO 202</td>
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<td>Natural Sciences and Mathematics</td>
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<td>A. Mathematics</td>
<td>6</td>
<td>MA 107, 108</td>
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<tr>
<td>B. Biology</td>
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<td>BI 101, 102</td>
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<tr>
<td>C. Electives</td>
<td>6</td>
<td>CH 200, PH 200, ES 200</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Category</th>
<th>Credits</th>
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<tr>
<td>Health</td>
<td>2</td>
<td>HE 110</td>
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Non-Credit Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Code</th>
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<tbody>
<tr>
<td>A. Library Orientation (Freshman)</td>
<td>LI 102</td>
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</tbody>
</table>
DEGREE PROGRAMS

B. Freshman Orientation  ED 101
C. Physical Education — six one-quarter courses
   (should be commenced during freshman year)

Professional Education

Professional education courses and other requirements are outlined under "Courses of Instruction," Department of Educational Services.

BACHELOR OF SCIENCE IN EDUCATION — ELEMENTARY EDUCATION MAJOR

<table>
<thead>
<tr>
<th>Humanities and Creative Arts</th>
<th>Credits</th>
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<tbody>
<tr>
<td>A. English Composition</td>
<td>EN 101 &amp; 102</td>
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<tr>
<td>B. Literature</td>
<td>World, English or American</td>
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<tr>
<td>C. Speech &amp; Theatre</td>
<td>ST 200</td>
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<tr>
<td>D. Art</td>
<td>AR 110</td>
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<tr>
<td>E. Music</td>
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<tr>
<td>F. Philosophy</td>
<td>PL 200, 210, 220, 230</td>
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<tr>
<th>Social Sciences and Behavioral Sciences</th>
<th>Credits</th>
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<tr>
<td>A. History</td>
<td>HI 111 &amp; 112, HI 221</td>
</tr>
<tr>
<td>B. Psychology</td>
<td>PY 200, 224</td>
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<tr>
<td>C. Electives</td>
<td>HI 222, SO 202, EC 400, AN 201</td>
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<tr>
<th>Natural Sciences and Mathematics</th>
<th>Credits</th>
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<tbody>
<tr>
<td>A. Mathematics</td>
<td>MA 107, 108</td>
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<tr>
<td>B. Biology</td>
<td>BI 101, 102</td>
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<tr>
<td>C. Chemistry</td>
<td>CH 200</td>
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<tr>
<td>D. Physics</td>
<td>PH 200</td>
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<tr>
<td>E. Earth Science</td>
<td>ES 200</td>
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</tbody>
</table>
Health

HE 110

2

Non-Credit Requirements

A. Library Orientation (Freshman) LI 102
B. Freshman Orientation ED 101
C. Physical Education — six one-quarter courses
   (should be commenced during freshman year)

Professional Education

Professional education courses and other requirements are outlined under "Courses of Instruction," Department of Elementary Education.
DEPARTMENTAL COURSE OFFERINGS

The following section contains the courses offered by the Academic Departments of Bridgewater State College.

Course Numbering System

100—199 Introductory courses or courses normally taken in the freshman year
200—299 Courses normally taken in the sophomore year
300—399 Courses normally taken in the junior or senior years
400—499 Courses normally taken only by seniors

Usually courses offered in the fall semester are odd-numbered; those offered in the Spring semester are even numbered. Courses offered both semesters usually end in zero.

Prerequisites

Students should make certain that they have the necessary prerequisites for each course. Failure to do so may result in being inadequately prepared to take the course, and may result in the loss of any credit earned in the course. Prerequisites are given after the abbreviation Prq.

Unless specified otherwise, courses meet for three 50-minute periods or two 75-minute periods per week for one semester, and count for three credits. Departures from this rule, such as laboratory and studio periods and quarter courses, are indicated in the course descriptions.

When an instructors’ name is specified, it indicates that he normally teaches the course. However, changes are sometimes necessary, and they will be specified in the class schedule issued at registration.
DEPARTMENT OF ANTHROPOLOGY

Professor George Horner, Acting Chairman  
Associate Professor: Abraham Thomas

Assistant Professors: James Mueller, Reed Stewart, Abraham Thomas.

Required for a Major in Anthropology: AN 201 and AN 205, plus six to eight other courses in Anthropology. Majors must also successfully complete a one-year sequence of language study at the intermediate level, or its equivalent.

Required courses in other fields will be determined by the area of specialization in Anthropology. Students preparing for graduate work in Physical Anthropology will major in Biology and minor in Anthropology. Students preparing for graduate work in Archaeology may major in Geology and minor in Anthropology. Those preparing for graduate study in General Anthropology will have concentrations in Biology, Chemistry, Geology, or Physics.

Students preparing for graduate work in Cultural Anthropology will have concentrations in other Behavioral Sciences, or English, Geography, History, Language, Art, Music, or Speech. Students preparing for graduate study in Personality and Culture will have concentrations in Psychology and Zoology.

MA 110 is required of all majors. A minor in Anthropology requires AN 201 and AN 205 and 4 other courses in Anthropology, a total of 18 credits.

AN 201 General Anthropology  
3 crs.

AN 202 Cultural Anthropology  
3 crs.
Science of human behavior in different cultural contexts. Man's biological and cultural variability; human societies of the present and recent past around the world; dynamics of cultural change. Professor Horner and Staff.

AN 205 Culture in Process  
3 crs.
Prq.: AN 201 or AN 202.
Use of the inductive approach to examine the effect of culture on individuals and groups. Discussion and study of applied anthropological techniques used in planned programs to assist in adopting social change. Professor Horner and Staff.

AN 207 Primitive Religion  
3 crs.
The origins and development of religion in society; myth, ritual, magic, and religious specialists. Australian, African, American Indian, Near Eastern folk religion, and folk religion of the Negro in the new world. Professor Horner.

AN 208 Religion in the Cultures of Asia  
3 crs.
A survey of the beliefs and practices of Hinduism, Buddhism, and Islam, as related to their societal and cultural backgrounds. Attention will be given to aboriginal religions of the South Pacific and to the ancient religions of China and Japan, Taoism, Confucianism, and Shinto. The "great tradition" of philosophy will be compared to the "folk tradition" and actual practice of each religion in Asia today. Associate Professor Thomas.

AN 210 Introduction to Folklore  
3 crs.
The meaning and subdivisions of folklore: myth, folk tale, proverb, riddles. Analyses of story elements and major folklore areas. Professor Horner.
AN 301  Introduction to Physical Anthropology  3 crs.
Prq.: AN 201 or 1 yr. or natural science.
An introduction to the principles of Physical Anthropology as it relates to human evolution. Examinations of present evidence, in an attempt to discover the origin of man. Such aspects of progress in homeostasis, primate radiation, body structure and posture, feeding ecology and behavior, evolution of the head, and reproduction. Instructor to be announced.

AN 302  Introduction to Archaeology  3 crs.
Prq.: AN 201 or 1 yr. of natural science.
Examination of field methods, systems of data recording, analytical methods, and their conceptual basis. Abstract theory closely integrated with specific case material. Laboratory exercises in application of artifact analysis. Assistant Professor Mueller.

AN 304  Personality and Culture  3 crs.
Prq: AN 201 or major in Behavioral Sciences.
A study of the interrelationships between individual and society, focusing on 1) major theories about the formulation of personality by the surrounding structures, including Freudian theory and the Marxist concept of alienation; 2) a cross-cultural study of childhood; 3) adolescence in changing America; 4) several conceptions about the contemporary American Personality as compared with personality structures in traditional society. Instructor to be announced.

AN 305  Peoples and Cultures in India  3 crs.
Prq.: AN 201 or ES 452.
A survey of social structure in India, with emphasis on 1) the caste system; 2) the traditional Hindu and Islamic cultures; and 3) the effects of urbanization and modernization upon traditional structures. Instructor to be announced.

AN 307  Seminar: Urban Cultural Dynamics  3 crs.
Prq.: AN 201, or ES 353, or SO 306.
A study of poverty, urban renewal, and the experience of the ghetto, crime, family disintegration, problems of housing and transportation, and proposed solutions to the crisis of the inner city. Wherever possible emphasis will be upon Boston. Staff.

AN 310  Peoples and Cultures of Africa South of the Sahara  3 crs.
Prq.: AN 201, ES 261, SO 202.
A survey of present cultures of tropical and subtropical Africa, problems of colonialism, acculturation, new nationalism, and rapid social change. Instructor to be announced.

AN 320  West Indian Negro Cultures in the Caribbean  3 crs.
Prq.: AN 201, or SO 203, or ES 261.
Survey of the West Indian Negro cultures in the West Indies including social organization, religion, political development, and adjustment to modern conditions. Instructor to be announced.

AN 321  Comparative Social Structures  3 crs.
Prq.: AN 201
A comparison of social structures of selected non-western societies. Stress is placed upon the meaning of society, structure, and methods of comparison. Professor Horner

AN 322  Seminar: Afro-Asian Urban Cultures  3 crs.
Prq.: same as for AN 310.
Description and analysis of urban cultures in Africa and Asia with special attention to problems of rapid social change, acculturation, political and economic developments. Instructor to be announced.
AN 323  Theory of Culture  3 crs.
Prq.: AN 205.
A survey of early schools of cultural theory including Adolf Bastian, Lewis Morgan, Edward B. Tylor, the British Diffusionists, the German Historical-Diffusionist School, French Sociology, Functionalism, including Franz Boas and Malinowski. Current functional evolutionary theory. *Professor Horner.*

AN 324  Human Evolution and Variation  3 crs.
Prq.: AN 301.
Application of the general evolutionary theory to man; primatology; human paleontology; race formation; cultural effects. For students with a concentration in Biology, or Physics, or Chemistry, or Earth Science. *Professor Horner and Staff.*

AN 325  Survey of West African Cultures  3 crs.
Prq.: same as for AN 310.
An introduction to contemporary diversity in relation to language grouping technologies, national problems, and opportunities. *Assistant Professor Stewart.*

AN 326  Survey of East African Cultures  3 crs.
Prq.: same as for AN 310.
An introduction to the cultural diversities in relation to language grouping, technologies, national problems, and opportunities with emphasis on the present. *Assistant Professor Stewart.*

AN 327  Seminar: Urban Centers in East and West Africa  3 crs.
Prq.: same as for AN 310.
Major African cities and the culture of their hinterland focusing on cities like Nairobi, Kampala, Kairo, Kumase, and Moarovia, and the role these cities play in shaping the lives of people in the surrounding territories. *Assistant Professor Stewart.*

AN 328  Archeology of North America  3 crs.
Prq.: AN 201.
A survey of some of the semi-historic and pre-historic Indian cultures in North America. *Assistant Professor Mueller.*

AN 402  Seminar on Field Methods  3 crs.
Prq.: AN 201.
Methods of field work for cultural anthropologists working in ongoing societies; design of field studies; techniques for collection and analysis of empirical data; experimental field projects. *Professor Horner and Staff.*

AN 404  Seminar: Anthropology for Elementary Education  3 crs.
Prq.: AN 201.
Theory and techniques of teaching Anthropology to elementary students: Grades 1 through 6. Special course material in physical and cultural anthropology and prehistory and archaeology. *Professor Horner and Staff.*
AN 405 Directed Studies  
Supervised individual project (reading, discussion, and report) for students who have completed the major portion of their degree requirements. Offered only to minors or majors in Anthropology. Professor Horner and Staff.

AN 406 Archaeological Field Excavation, Survey and Research in Prehistoric Village Sites in New England  
Prq.: AN 302.  
Intensive training in excavation techniques, recordation, analysis, and interpretation of archaeological materials. For students with a concentration in Earth Science. Assistant Professor Mueller.

DEPARTMENT OF ART

Associate Professor Stephen Smalley, Chairman  
Associate Professor Doris Tebbetts.
Assistant Professors: John Droege, John Heller, William Kendall.
Instructor: Joan Hausrath.

Eighteen credits are required for an Art minor and fifteen credits for a concentration in Art; AR 110 and AR 280 may be included in either the minor or the concentration. A grade of C or above in AR 110 or AR 280 is required to continue in the Art minor program. Course sequences for a concentration or a minor in Art should be arranged with the department chairman or art advisor.

AR 110 Introduction to Art  
Emphasis on painting, sculpture, and architecture; analysis of media, technical processes, and aesthetic principles; and discussion of style and its historical context. Assigned readings and museum visits. Staff.

AR 270 Basic Design  
Two and three dimensional surfaces and their structural possibilities. Elements of plastic expression related to increasingly complex concepts of space and form arrangement. Three two-hour periods weekly. Staff.

AR 272 Drawing I  
Basic concepts: perspective, modeling in light and dark, contour drawing. Exploration of various media: pencil, pen and ink, charcoal, ink wash, etc. Three two-hour periods weekly. Staff.

AR 273 Drawing II  
Prq.: AR 272 or consent of the instructor. Advanced projects will be planned according to the individual's style development and media preference. Three two-hour periods weekly. Staff.
AR 280  Understanding Arts  3 crs.
The development of a framework for visual understanding and enjoyment. Art is approached from both an analytical and a theoretical point of view. Attention is focused on the social, psychological and critical aspects of works of art. (Not offered in 1973-1974).

AR 285  Textile Design I  3 crs.
Design as related to weaving, knotting, and crewel work. Student may choose according to individual interest. Three two-hour periods weekly. Associate Professor Tebbetts.

AR 286  Textile Design II  3 crs.
Prq.: AR 285 or consent of the instructor. Advanced problems and techniques. Three two-hour periods weekly. Associate Professor Tebbetts.

AR 287  Painting I  3 crs.
Basic skills, picture organization, and painting techniques. Students will find individual solutions to assigned problems. Field trips to museums and galleries. Three two-hour periods weekly. Assistant Professor Kendall and Associate Professor Smalley.

AR 288  Painting II  3 crs.
Prq.: AR 287 or consent of the instructor. Advanced projects will be planned according to the individual’s style of development. Three two-hour periods weekly. Assistant Professor Kendall and Associate Professor Smalley.
AR 291 **History of Art I**
3 crs.
Prq.: AR 110, or consent of the instructor.
Major developments in art from the prehistoric through the late Gothic. Style is examined in relation to the historical process. Assigned readings and museum work. Instructor to be announced.

AR 292 **History of Art II**
3 crs.
Prq.: AR 110, or consent of the instructor.
Major developments in art from the Renaissance through the Modern era. The historical approach supplemented with analysis of stylistic problems. Assigned readings and museum work. Staff.

AR 374 **Art for Special Education**
3 crs.
Art education theory and direct experience with a variety of materials and processes adapted to the needs of special education. Three two-hour periods weekly. Staff.

AR 375 **Materials and Methods**
3 crs.
Direct, creative experience with materials and processes related to the teaching of art in the public schools. Three two-hour periods weekly. Associate Professor Smalley.

AR 376 **Wood Design**
3 crs.
Wood as a material of creative expression; the use of both hand and power tools. Emphasis on the esthetic and utilitarian use of the materials. Three two-hour periods weekly. Assistant Professor Droege.

AR 377 **Glassblowing I**
3 crs.
Prq.: Consent of the instructor.
Glass as a means of creative expression; the basic forming techniques and methods of design in glass. Three two-hour periods weekly. (Not offered in 1973-1974).

AR 378 **Glassblowing II**
3 crs.
Prq.: Consent of the instructor.

AR 379 **Sculpture**
3 crs.
Design experimentation with traditional and new techniques. Media will include wood, metal, and resins. Three two-hour periods weekly. Assistant Professor Kendall.

AR 380 **Ceramic Design**
3 crs.
Basic wheel forming and construction. Techniques in clay. Three two-hour periods weekly. Assistant Professor Heller.

AR 381 **Wheel Throwing**
3 crs.
Prq.: AR 380 or consent of the instructor.
Advanced problems and experience on the potter’s wheel, and esthetics of ceramic design. Three two-hour periods weekly. Assistant Professor Heller.

AR 382 **Clay and Glazes**
3 crs.
Prq.: AR 380 or consent of the instructor.
Advanced work in the chemistry and compounding of clay and glaze materials. Three two-hour periods weekly. Assistant Professor Heller.

AR 383 **Metal Design I**
3 crs.
Basic design, construction, and forming techniques. Jewelry, constructed forms, sculpture. Three two-hour periods weekly. Assistant Professor Heller.
DEPARTMENT OF ART

AR 384 Metal Design II 3 crs.
Prq.: AR 383 or consent of the instructor.
Advanced problems and techniques. Three two-hour periods weekly. Assistant Professor Heller.

AR 385 Advanced Jewelry Design 3 crs.
Prq.: AR 383 or consent of the instructor.
Specialized techniques for the design and creation of jewelry in precious metals, and experimental construction techniques with these metals. Three two-hour periods weekly. Assistant Professor Heller.

AR 387 Introduction to Printmaking 3 crs.
The basic methods, materials and processes used in printmaking. Three two-hour periods weekly. Assistant Professor Droege and Ms. Hausrath.

AR 389 Independent Study I 3 crs.
Special problems in any studio art offered. Arrangements made by the department chairman. Associate Professor Smalley and Staff.

AR 390 Interior Design 3 crs.
Traditional and contemporary styles in furniture and interior design studied in illustrated lectures and field trips. Problems in selection and arrangement of home furnishings. Associate Professor Tebbetts.

AR 394 Renaissance Art and Architecture 3 crs.
The development of the arts of architecture, painting, and sculpture in the Early and High Renaissance, with special emphasis on their interrelationships and their relation to the artistic theories and cultural ideals of the time. Assistant Professor Droege and Staff.

AR 395 Baroque Art 3 crs.
Mannerist and Baroque styles of the sixteenth through eighteenth centuries will be studied, with emphasis on their origins in Italy and development through Western Europe. Ms. Hausrath and Staff.

AR 396 Modern Art 3 crs.
This course involves a study of painting, sculpture and architecture from Neo-Classicism to the present. Emphasis will be placed on major contemporary art movements. Assistant Professor Droege and Ms. Hausrath.

AR 398 Arts of the Far East 3 crs.
A selective review of major achievements in the arts of the Asiatic tradition, including those of India, Indonesia, China, Korea, and Japan. Comparison, when appropriate, with the arts of the West. (Not offered in 1973-1974)

AR 399 The Arts of the Americas 3 crs.
A survey of the arts of the early Americas, including the Inca, Toltec, Mayan, and Aztec cultures, with selected examples from the primitive Indian Arts of North America. (Not offered in 1973-1974)

AR 400 Primitive Art 3 crs.
Formal art properties and esthetic qualities of primitive art; the physical, psychological, and sociological backgrounds which brought this art into being. Assistant Professor Droege.
DEPARTMENT OF BIOLOGICAL SCIENCES

Professor Kenneth Howe, Chairman
Commonwealth Professor and Dean of the Graduate School Frank Hilferty.
Professors: James Brennan, Elizabeth Cirino, Lawrence Mish, Walter Morin, William Wall
Associate Professor: Walter Hewitson.
Assistant Professors: John Jahoda, Florian Muckenthaler, Harold Schaefer.

The Department offers a broad program for undergraduate majors leading to the degree of Bachelor of Arts or Bachelor of Science in Biology and is designed to prepare students for teaching, research, graduate work, or a wide variety of applied fields. A minor program is provided for students with majors in fields related to biology, or for those interested in a better understanding of the life sciences. For those preparing for careers in medicine, dentistry, or oceanography, the Department participates in those Interdepartmental Programs (See catalog section: Interdepartmental Programs). The Department of Biological Sciences also participates in the Marine Sciences Consortium conducted at the Massachusetts Maritime Academy. Summer work in this Consortium provides an opportunity for interested students to augment their degree programs with a wide variety of the Marine Sciences.

Students majoring in the biological sciences must satisfactorily complete the following Biology courses: BI 101, 102, 281, 282, 283, 292, 381, 393, 395, 397, 401, 405, 411.

In addition to the General Education requirements, Biology majors must also satisfactorily complete the following courses: CH 131*, 132; MA 103*, 104; PH 181*, 182; ES 413. The courses CH 131, 132; MA 103, 104 should be taken in the freshman year.

A biology major must also successfully complete work in one foreign language through the intermediate level. Those considering subsequent graduate work are strongly advised to select German for the language requirement.

* Students with appropriate backgrounds and the concurrence of their Departmental adviser may enroll in more advanced courses in Chemistry, Physics, and Mathematics than those cited above.

The Biology minor consists of an integrated series of courses appropriate to each student's concentration and arranged individually with a faculty adviser from the Department of Biological Sciences.

Entering students who have unusually broad backgrounds in Biology will usually be permitted to enroll in courses beyond the 100 series if they meet the departmental requirements for advanced placement. Persons who feel they may be eligible for advanced placement should consult with the Chairman of the Department.
BI 101  Introduction to the Biological Sciences I  3 crs.
The botanical aspects of biology with emphasis on the structure and function of cells, tissues, organs, and the plant body, together with a general survey of the plant kingdom. Such topics as photosynthesis, water relations, respiration, growth, reproduction, heredity, disease, and evolution are included. BI 101, 102 are coordinated so that various concepts common to plants and animals are taught in one semester or the other and not duplicated. Students are expected to complete both courses. Two lectures and one two-hour laboratory period weekly. Professor Howe and Staff.

BI 102  Introduction to the Biological Sciences II  3 crs.
The zoological aspects of biology with emphasis on such topics as: the nature of sciences and scientific thinking; the structure and physiology of cells, tissues, organs, and organ-systems; embryogeny; heredity; ecological and phylogenetic interrelationships; and a general survey of the animal kingdom. BI 101, 102 constitute a coordinated course in general biology, and students are expected to complete both courses. BI 102 may be taken before BI 101. Two lectures and one two-hour laboratory period weekly. Professors Cirino, Wall, and Staff.

BI 212  The Biological Environment  3 crs.
Emphasis is placed on current and future problems associated with man in his environment. The biological relationship between man and other living forms is discussed in terms of man's historical and present role in nature. Topics to be covered include: various aspects of pollution, population, and environmental disturbances. This course is not open to biology majors. Three lectures weekly. Professor Cirino and Assistant Professor Jahoda.

BI 281  Invertebrate Zoology  3 crs.
Prq.: BI 101, 102 or consent of the instructor.
The biology of invertebrates from a phylogenetic standpoint with emphasis on taxonomy, morphology, histology, physiology, development, and natural history. Representatives of the principal classes of each phylum are studied. Two lectures and one two-hour laboratory period weekly. Professor Wall.

BI 282  Comparative Chordate Anatomy  3 crs.
Prq.: BI 101, 102 or consent of the instructor.
An ontogenetic and phylogenetic survey is made of chordate gross anatomy, supplemented by laboratory dissections of representative species. Emphasis is placed on the changes in chordate structure and biology that comprise their evolution, and an interpretation made of the whole series of change in the light of our modern knowledge of how evolution is brought about. Two lectures and one two-hour laboratory period weekly. Assistant Professor Jahoda.

BI 283  Field Natural History  2 crs.
Prq.: BI 101, BI 102 or consent of the instructor.
The identification of local plants and animals with emphasis on the natural history of common animals, dominant biotic communities of Southeastern Massachusetts, general morphology and taxonomy of organisms, and techniques of collecting and preserving. One one-hour lecture and one three-hour laboratory period weekly. Professor Mish and Staff.

BI 292  Plant Anatomy  3 crs.
Prq.: BI 101, 102 or consent of the instructor.
A comparative study of the structural, functional, developmental and phylogenetic characteristics of cells, tissues, and organs in the vascular plants with emphasis on the angiosperms. Two lectures and one two-hour laboratory period weekly. Associate Professor Hewitson.
BI 294 Plant Morphology 3 crs.
Prq.: BI 101, BI 102, or consent of the instructor.
A survey of the plant kingdom from the Monera through the Angiosperms with emphasis on evolutionary adaptations associated with each group and phylogenetic relationships between the divisions as reflected in present day classification systems. Associate Professor Hewitson.

BI 312 Heredity and Human Endeavor 3 crs.
Prq.: BI 101, 102 or consent of the instructor.
The principles of genetics which are important to an understanding of the heredity mechanism in man. Individual differences in relation to gene-environment interaction and the role of heredity in education, governance, and society. Primarily an elective for non-science majors. Professor Brennan.

BI 381 General and Comparative Physiology 3 crs.
Prq.: BI 101, 102; CH 131, 132; PH 181, 182; or consent of the instructor.
Physiological principles concerned in irritability, contraction, circulation, gas exchange, excretion, and hormonal regulation. Two lectures and one two-hour laboratory period weekly. Professor Morin.

BI 385 Mammalian Physiology 3 crs.
Prq.: BI 102 or consent of the instructor.
General physiological principles and their application to the human body. Two lectures and one two-hour laboratory period weekly. Professor Morin.

BI 392 Problems in Biology Credits arranged.
Prq.: consent of the Departmental Chairman.
Individual instruction for advanced students usually involving original research in the biological sciences. Hours arranged. Professor Howe and Staff.

BI 393 Genetics 3 crs.
Prq.: BI 101, 102; MA 103, 104; or consent of the instructor.
Analysis of the basic principles underlying heredity and the mechanisms involved in the replication, recombination, mutation, variation and expression of genetic material in representative plant, animal and microbial systems. Two lectures and one two-hour laboratory period weekly. Assistant Professor Muckenthaler.

BI 395 Microbiology 3 crs.
Prq.: BI 101, 102; CH 131, 132; or consent of the instructor.
An introduction to the structure, function, and ecology of microorganisms with emphasis on bacteria and viruses. Two lectures and one two-hour laboratory period weekly. Assistant Professor Schaefer.

BI 397 Plant Physiology 3 crs.
Prq.: BI 101, 102; CH 131, 132, or consent of the instructor.
The growth and function of plants including cellular physiology, water relations, metabolism, respiration, photosynthesis, nutrition, growth regulation, and the influence of environment. Two lectures and one two-hour laboratory period weekly. Professor Howe.

BI 401 Seminar in Biology 1 cr.
Prq.: consent of the instructor.
In-depth consideration of current problems and research in the biological sciences. One period weekly for the first, second and fourth quarters. Professor Wall and Staff.
DEPARTMENT OF CHEMICAL SCIENCES

**BI 404 Biological Evolution**
Prq.: BI 393, or consent of the instructor.
The theory of evolution and the operation of evolutionary forces as related to modern taxonomy, with emphasis on such topics as mutation, variation, hybridization, polyploidy, isolation, natural selection, and population genetics. *Professor Wall and Associate Professor Hewitson.*

**BI 411 Ecology**
Prq.: BI 281, 283, 292, 393, 397; or consent of the instructor.
The dynamics and evolution of populations, communities, and eco-systems. Students become acquainted with the communities of Southeastern Massachusetts through field studies. Two lectures and one two-hour laboratory period weekly for first and fourth quarters. *Professor Cirino.*

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**DEPARTMENT OF CHEMICAL SCIENCES**

Professor Wilmon Chipman, *Chairman*
Professor Henry O. Daley, Jr.
Associate Professors: Vahe Marganian, Margaret Souza.
Assistant Professors: Joseph Pagano, Kenneth Sumner.

The Department of Chemical Sciences is on the list of approved schools of the American Chemical Society. The department offers two major programs in Chemistry (major in Professional Chemistry and major in Chemistry) and also offers a Chemistry-Geology major jointly with the Department of Earth Sciences. The Chemistry-Geology major is listed in the catalog as an Interdepartmental Program in Natural Sciences. Students interested in medicine or dentistry should consult the section of the catalog describing the pre-medical and pre-dental programs. Attention is called to the Interdepartmental Programs in Oceanography. A major in chemistry is excellent preparation for further work in this area. Bridgewater State College participates in the Marine Sciences Consortium based at the Massachusetts Maritime Academy. Participation in this summer program is excellent preparation for a career in oceanography.

The Department of Chemical Sciences offers two programs leading to the bachelor degree in Chemistry. The first of these, the major in Professional Chemistry, is designed for students who plan to go on to graduate work in chemistry or to do research in the chemical industry. The courses offered in this program meet the requirements of the American Chemical Society for an approved major. Satisfactory performance in this program (B average) will give the student the professional preparation required for an assistantship or fellowship in graduate school.

The second major in Chemistry is designed for students who wish to prepare for secondary school teaching, chemical sales work, medicine, dentistry, pharmacy, oceanography, environmental science, or veterinary science. This program is designed to allow a maximum amount of flexibility in that only a minimum number of chemistry courses are included. The student enrolled in this program may elect more chemistry courses if he desires, or he may elect courses in other sciences or in the Humanities, Social Sciences, or Education. The student need not decide between the programs until the second semester of his sophomore year. Both curricula are structured so that the student achieves a well-balanced liberal education and professional training in his major field.
The major in Professional Chemistry is required to take the following courses: CH 100, 141, 142, (or CH 131, 132), 241, 242, 343, 344, 381, 382, 441, 442, 444, 450; and MA 101, 102, 201, 316; PH 243, 244, 387 and must successfully complete a one-year sequence of either German or Russian at the intermediate level or pass a proficiency examination in one of these languages. (German or Russian may be replaced with French with the written permission of the Department.) Graduates of this program will meet the requirements for certification of the American Chemical Society.

The major in Chemistry is required to take the following courses: CH 100, 141, 142, (or CH 131, 132), 242, 343, 344, 381, 382; and MA 101, 102, (or MA 103, 104 with the consent of the department); PH 243, 244, PH 181, 182 may be substituted for PH 243, PH 244 with the written permission of the department. The major in Chemistry must successfully complete a one-year sequence in a foreign language at the intermediate level or pass a proficiency examination in a foreign language. The normal freshman program for a student interested in majoring in Chemistry consists of CH 100, CH 141-142, MA 101-102, EN 101-102, and HI 111-112.

A minor in Chemistry consists of eighteen credits in Chemistry, exclusive of CH 200. A minor in physical science may be arranged by consultation with the Department of Chemical Sciences and the Department of Physics.

The Department of Chemical Sciences has recently acquired the following equipment: a Varian T-60 Nuclear Magnetic Resonance Spectrophotometer, with time-averaging device (C-1024); a Perkin-Elmer Model 257 Infrared Spectrophotometer; a Perkin-Elmer Model 202 Ultraviolet Spectrophotometer; Perkin-Elmer Model 154D and Varian Airograph 1720-1 Gas Chromatographs; a Perkin-Elmer Model 303 Atomic Absorption Spectrophotometer; a Labconco fiberglass glove box; an Eberbach electro deposition apparatus; and a Perkin-Elmer Model 700 Infrared Spectrophotometer. An X-ray Diffraction apparatus is shared with the Department of Earth Sciences. The Department of Chemical Sciences has also acquired such necessary equipment as recorders, Malmstadt-Ånke instrumentation Laboratories, pH meters, Spectronic 20's, and standard-taper glassware kits.

CH 100 Computer Science in Chemistry

Introduction to computer programming as used in Chemistry. Particular emphasis will be on applications of Fortran for statistical studies in the Chemistry laboratory. Professor Daley.

CH 131, 132 General Chemistry with Qualitative Analysis I-II

The elements and their compounds, with emphasis on structure and its relation to properties. CH 131 is prerequisite to CH 132. Two lecture periods and one two-hour laboratory period weekly. Staff.

CH 141, 142 Inorganic Chemistry with Qualitative Analysis I-II

Theoretical inorganic chemistry with emphasis on mass-energy relationships in terms of structure and physical laws. Laboratory work emphasizes quantitative techniques. CH 141 is prerequisite to CH 142. Three lecture periods and one four-hour laboratory period weekly. Staff.
CH 200  Survey of Chemistry  3 crs.
The fundamental laws of chemistry are studied together with their application to elements and compounds, reactions and properties. Two lecture periods and one two-hour laboratory period weekly. Staff.

CH 202  Chemistry In Everyday Life  3 crs.
A lecture demonstration course on the application of chemistry to selected topics that an individual encounters in his daily life. Sample topics are: a) colloids and their relationship to foods and air pollution; b) acids, bases and pH; the effects of fertilizers; c) drugs; the nature of various chemical classes and their chemical effects on the human body. 3 hours lecture. (Because of the demonstrations class enrollment must be limited to 40 students). Associate Professor Souza or Professor Daley.

CH 241  Inorganic Quantitative Analysis  3 crs.
Prq.: CH 132 or CH 142.
The classical and modern methods for the volumetric and gravimetric determination of elements and groups. Two lecture periods and one four-hour laboratory period weekly. Assistant Professor Pagano.

CH 242  Intermediate Inorganic Chemistry  3 crs.
Prq.: CH 132 or CH 142.
The descriptive chemistry, as well as synthesis and reactions, of nontransitional elements and their compounds are studied systematically. Correlations of structure and properties are explained on the basis of modern theories. Associate Professor Marganian or Assistant Professor Pagano.

CH 343, 344  Organic Chemistry I-II  4 crs. for each semester.
Prq.: CH 132 or CH 142 and consent of the instructor.
A survey of the chemistry of organic compounds organized in terms of structure, mechanism of organic reactions, and synthesis. CH 343 is prerequisite to CH 344. Three lecture periods and one four-hour laboratory period weekly. Professor Chipman and Associate Professor Souza.

CH 381, 382  Physical Chemistry I-II  4 crs. for each semester.
Prq.: CH 132 or CH 142; MA 102.
The laws governing the physical and chemical behavior of compounds. CH 381 is prerequisite to CH 382. Three lecture periods and one four-hour laboratory period weekly. Professor Daley.

CH 384  Physical Chemistry II  2 crs.
Prq.: CH 381.
The alternative to CH 382 for students who elect to student teach during the second semester. Differs from CH 382 by the omission of all material on quantum chemistry. Three lecture periods and one four-hour laboratory period weekly for one quarter. Professor Daley.

CH 390  Research Problems in Chemistry  Credits arranged.
Prq.: consent of the Department.
Special projects for advanced students desiring individual instruction in the methods of chemical research. Hours arranged.

CH 392  Laboratory Techniques  3 crs.
Special techniques used in the research laboratory, such as glass-blowing, vacuum line technique, vacuum distillation, dry-box operations and advanced synthetic techniques. Hours arranged. Instructor to be announced.
CH 440  Advanced Organic Chemistry  3 crs.
Prq.: CH 344, and consent of the instructor.
Selected topics in advanced organic chemistry, such as physical organic chemistry, alicyclic and heterocyclic chemistry, natural products, and advanced synthetic methods. Hours arranged.
Professor Chipman and Associate Professor Souza.

CH 441, 442  Qualitative Organic Analysis I-II  3 crs. for each semester.
Prq.: CH 344.
The reactions of organic compounds with emphasis on those of importance for classification and identification. Laboratory work involves the identification of both simple compounds and mixtures. One lecture period and one six-hour laboratory period weekly. Professor Chipman and Associate Professor Souza.

CH 444  Advanced Inorganic Chemistry  3 crs.
Prq.: CH 382.
The topics of group theory, stereochemistry, ligand field theory, molecular orbital theory, synthesis and kinetics of reactions as applied to transition metal elements will be treated in detail. CH 382 may be taken concurrently. Hours arranged. Associate Professor Marganian.

CH 450  Instrumental Analysis  3 crs.
Prq.: CH 382.
Theory and practical application of instrumental methods are applied to chemical analysis; including pH measurements, electro-deposition, potentiometry, crystallography, mass spectrometry and spectroscopy. CH 382 may be taken concurrently. Two lecture periods and one four-hour laboratory period weekly. Associate Professor Marganian.

CH 461, 462  General Biochemistry I-II  3 crs. for each semester.
Prq.: CH 344 and consent of the instructor.
A survey of the chemical components of living matter and the major processes of cellular metabolism. Two lecture periods and one four-hour laboratory period weekly. Assistant Professor Sumner.

CH 480  Special Topics in Physical Chemistry  3 crs.
Prq.: CH 382 and consent of the instructor.
Topics of an advanced nature in physical chemistry will be selected with an emphasis on recent developments in the field. Possible topics: N.M.R., E.S.R., elementary quantum mechanics, statistical thermodynamics. Professor Daley.

DEPARTMENT OF EARTH SCIENCES AND GEOGRAPHY

Professor Emanuel Maier, Chairman
Professors: Agrippina Macewicz, Ira Furlong.
Associate Professors: Robert Boutilier, Richard Enright.
Assistant Professors: Paul Blackford, Marilyn Furlong,
    Reed Stewart.
Instructor: Robert Dillman, Robert Hoekzema.

The Department of Earth Sciences and Geography offers two separate fields of concentration: Geography and Earth Sciences. The program of study for Geography majors is designed to give a student knowledge and appreciation of the physical and cultural attributes of the world in which he lives. The concentration in Earth Sciences aims to introduce students to the various sciences that relate to the physical aspects of the earth and the universe.
Students majoring in geography are required to take the following courses: ES 181, 182, 304, 315, 362, 471; elect two from the following groups: ES 192, 194, 301, 303, 306, 484; and elect four more approved geography courses. A total of 35-36 credits are required. Not more than one D for a semester course shall be accepted for fulfillment of the requirements for the major.

Students majoring in the earth sciences are required to take the following courses: ES 181, 192, 301, 303, 306, 372, 463, 484; and elect three more approved earth science courses. A total of 34 credits are required in the major. Not more than one D for a semester course shall be accepted to fulfill the requirements for the major.

An additional requirement for geography is one course in elementary statistics (MA 110 or equivalent). Additional requirements for earth sciences are: one year of mathematics, one year of chemistry, and one year of either physics or biology.

Majors must also successfully complete a one-year sequence of language study at the intermediate level, or its equivalent.

Attention is called to Interdepartmental Programs in Chemistry-Geology, Oceanography and Urban Affairs.

Acquisition of modern laboratory equipment has enabled the Department to offer investigation-oriented laboratory periods. This equipment includes: a Norelco X-ray diffractometer with Laue and Debye-Scherrer cameras; rock saw and thin section equipment; polarizing and stereoscopic microscopes; a Perkin-Elmer Model 303 Atomic Absorption Spectrophotometer; Soiltest Seismic Refraction Unit; a complete weather station; two telescopes; a theodolite, surveying equipment; and a modern cartographic laboratory.

*Asterisk indicates courses not giving physical science credit.

**Courses will satisfy non-lab general education science requirements.

ES 181  Physical Geology  3 crs.
The constitution of the earth and the processes acting on and within it. Field trips. May be followed by either ES 182 or ES 192. Two lecture periods and one two-hour laboratory period weekly.  
Professor I. Furlong and Staff.

ES 182  Physical Geography  3 crs.
Selected elements of man’s environment such as the atmosphere, climate, soils, and vegetation. Man’s role in altering these elements. Field trips. Two lecture periods and one two-hour laboratory period weekly.  
Professor Macewicz and Staff.

ES 192  Historical Geology  3 crs.
Prq.: ES 181.
The origin and evolution of the earth and the life upon it. Two lecture periods and one two-hour laboratory period weekly.  
Staff.

ES 194  Environmental Geology**  3 crs.
Waste disposal, slope stability, shoreline and hydrologic problems, seismic and perma frost conditions and other topics as they pertain to the geologic environment in selected physiographic provinces of North America will be studied.  
Professor I. Furlong.
ES 200  Survey of Physical Geography  3 crs.
Man-land relationships and the interaction of man with his total environment, including its land-
forms, atmosphere, climate, vegetation, and soils. Designed especially for students working for
a B.S. degree in Elementary Education. Two lecture periods and one two-hour laboratory period
weekly. Assistant Professor M. Furlong and Staff.

ES 252  Geography of Anglo-America*  3 crs.
Prq.: ES 182 or ES 200, or consent of the instructor.
A description and analysis of the relationships between relevant physical and cultural features
of regions in the United States and Canada. Assistant Professor M. Furlong.

ES 261, 262  World Regional Geography*  3 crs. for each semester
Geographical context of current social, economic and political problems in Europe, the U.S.S.R.,
the Orient, the Middle East, the Pacific World, Africa, Latin America, and Anglo- America. Geo-
 graphical features characteristic of each country and their relationship to a functioning political
and economic unit. Either semester may be taken independently. Assistant Professor Stewart.

ES 301  Astronomy I**  3 crs.
Prq.: MA 103-104 or consent of instructor.
A study of the earth, moon, planets, sun, and other stars and galaxies. New finding of radio
astronomy and the uses of earth satellites. Day and evening observations. Staff.

ES 302  Astronomy II**  3 crs.
Prq.: MA 103-104 or consent of instructor.
Stars, galaxies, stellar evolution, instrumentation, and cosmology. Day and evening observation.
Staff.

ES 303  Meteorology  3 crs.
Prq.: ES 200 or ES 182 or consent of instructor.
An analysis of weather elements, atmospheric circulation, fronts, and the instruments that meas-
ure and record these phenomena. Two lecture periods and one two-hour laboratory period
weekly. Assistant Professor Blackford.

ES 304  Climatology**  3 crs.
Prq.: ES 303 or consent of the instructor.
Climatic elements and climatic controls, their areal distribution and effect on man. Assistant
Professor Blackford.

ES 305  Introduction to Oceanography I**  3 crs.
Prq.: BI 101, BI 102, or consent of the instructor.
Survey of marine life forms and of the chemistry of seawater. Staff.

ES 306  Introduction to Oceanography II**  3 crs.
Prq.: MA 101, 102, or 103 and MA 104 or consent of the instructor.
Ocean water temperature, circulation, shore lines, ocean basins, and mineral resources. Staff.

ES 315  Cartography*  3 crs.
Graphic presentation of geographic data and the latest techniques of map construction. One
lecture period and four laboratory periods weekly. Assistant Professor Blackford.

ES 353  Urban Geography*  3 crs.
Prq.: consent of the instructor.
Geographic aspects of the city including location, function, land use patterns, and tributary areas.
Professor Macewicz.
DEPARTMENT OF EARTH SCIENCES AND GEOGRAPHY

ES 354  Field Methods in Urban Geography*  1-3 crs.
Prq.: ES 353.

ES 358  Geography of Latin America*  3 crs.
Physical and cultural patterns of selected countries of South America. Emphasis on current economic and political problems. (Not offered in 1973-1974)

ES 361  Geography of Environmental Problems**  3 crs.
Environmental Problems are considered in this course from the geographer's point of view, problems such as population densities and distribution, balanced land use and its philosophic, aesthetic, and scientific basis, the circulation of goods and people, and a comparison of levels of development. Assistant Professor Furlong.

ES 362  Economic Geography*  3 crs.
Prq.: consent of instructor.

ES 363  Field Methods in Economic Geography*  1-3 crs.
Prq.: ES 362.
The testing of theories and concepts of economic location in the local area. Robert Dillman.

ES 372  Mineralogy  4 crs.
Prq.: ES 181 and CH 132.
Geometrical and X-ray crystallography followed by the determinative mineralogy of ore and rock-forming minerals. Two lecture periods and two two-hour laboratory periods weekly. Associate Professor Boutilier.

ES 400  Internship in Urban Planning  6 crs.
Student internship in a local planning department. The purpose of this internship is to allow a student to become familiar with the various aspects of his urban interest.

ES 405  Synoptic Meteorology  3 crs.
Prq.: ES 303.

ES 407  Air-Photo Interpretation  3 crs.

ES 413  Survey of Physical and Historical Geology  3 crs.
The structure and history of the earth as deduced from the study of life forms and their physical environment. Two lecture periods and one two-hour laboratory period weekly. For Biology majors only. Associate Professor Enright.

ES 451  Geography of Europe*  3 crs.
Prq.: ES 182 or ES 200, or consent of the instructor.
The character of the natural and cultural environments of the geographic regions of Europe. Professor Macewicz.

ES 452  Geography of Asia*  3 crs.
The physical and cultural patterns of selected countries of Asia. Professor Maier.
<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ES 461</td>
<td>Geography of Africa *</td>
<td>3 crs.</td>
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<tr>
<td></td>
<td>The physical and cultural features of the African continent with special reference to the emerged political and regional patterns. <em>Assistant Professor Stewart.</em></td>
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<tr>
<td>ES 462</td>
<td>Geology of North America</td>
<td>3 crs.</td>
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<td>Prq.: ES 181.</td>
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<tr>
<td></td>
<td>Physiographic provinces of North America in terms of geomorphology and structural relationships. <em>(Not offered in 1973.)</em></td>
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<tr>
<td>ES 463</td>
<td>Petrology</td>
<td>3 crs.</td>
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<td>Prq.: ES 372.</td>
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<td></td>
<td>Megascopic and microscopic classification of rocks and an introduction to petrogenesis. One lecture period and two two-hour laboratory periods weekly. <em>Associate Professor Boutilier.</em></td>
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<tr>
<td>ES 464</td>
<td>Economic Geology</td>
<td>3 crs.</td>
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<td></td>
<td>Prq.: ES 181.</td>
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<tr>
<td></td>
<td>Geochemical and physical processes that produce economic mineral deposits. Two lecture periods and one two-hour laboratory period weekly. <em>(Not offered in 1973-1974.)</em></td>
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<tr>
<td>ES 466</td>
<td>Glacial Geology</td>
<td>3 crs.</td>
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<td>Prq.: ES 181.</td>
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<td></td>
<td>The mechanics of glacial origin and movement, and the erosive and depositional features produced. Emphasis on the Pleistocene of North America. Two lecture periods and one two-hour laboratory period weekly. <em>Professor Furlong.</em></td>
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<tr>
<td>ES 471</td>
<td>Seminar in Geography *</td>
<td>3 crs.</td>
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<td>The historical development of methods, tools, and techniques used in geographic research. Preparation of a research paper on a problem selected from one of the subdivisions of geography. For senior Geography majors. Two periods weekly for three quarters. <em>Professor Maciewicz.</em></td>
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<tr>
<td>ES 472</td>
<td>Research in Earth Sciences or Geography</td>
<td>3 crs.</td>
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<td></td>
<td>Preparation of a research paper in the Earth Sciences. <em>Staff.</em></td>
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<tr>
<td>ES 473</td>
<td>Political Geography *</td>
<td>3 crs.</td>
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<td>Variations of politically organized areas and their relationship to each other. Political behavior from the viewpoint of ethology, i.e., territoriality and aggression. <em>Professor Maier.</em></td>
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<tr>
<td>ES 474</td>
<td>Quantitative Geography *</td>
<td>2 crs.</td>
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<td>Prq.: consent of the instructor.</td>
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<td></td>
<td>The use of statistical techniques, and computer and model building methodology to analyze various spatial phenomena. <em>Mr. Dillman.</em></td>
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<tr>
<td>ES 475</td>
<td>Paleontology</td>
<td>3 crs.</td>
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<td>Prq.: ES 181, 192 or consent of the instructor.</td>
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<td></td>
<td>A survey of the fossil record stressing the most important invertebrate and vertebrate phyla and their environmental relationships. Two lecture periods and one two-hour laboratory period weekly. <em>Associate Professor Enright.</em></td>
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<tr>
<td>ES 483</td>
<td>Structural Geology</td>
<td>3 crs.</td>
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<td>Prq.: ES 181.</td>
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<tr>
<td></td>
<td>Analysis and origin of rock structures. Two lecture periods and one two-hour laboratory period weekly. <em>Associate Professor Enright.</em></td>
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DEPARTMENT OF EDUCATIONAL SERVICES

ES 484 Geomorphology 3 crs.
Prq.: ES 181 or consent of the instructor.
Relationships between gradational and tectonic forces and the resulting surface configuration of the earth. Two lecture periods and one two-hour laboratory period weekly. Professor I. Furlong.

DEPARTMENT OF ECONOMICS

Professor Jordan Fiore, Acting Chairman
Instructors Stanley Antoniotti and Richard Freeman.

EC 320 Comparative Economic Systems 3 crs.
Analysis of central economic problems faced by nations in organizing economic activity; comparison of theories and institutions of capitalism and liberal socialism.

EC 400 Economic Principles and Problems 3 crs.
Significant economic concepts, institutions, and problems of a free enterprise system.

EC 420 Principles of Investments 3 crs.
Introduction to mechanics of stock market and analysis of various investment media for individual investment portfolios.

DEPARTMENT OF EDUCATIONAL SERVICES

Professor Stanley Clement, Chairman
Professors: John Deasy, V. James DiNardo.
Associate Professor: Anthony De Leo.
Assistant Professors: Genevieve Ash, Peter Bizinkauskas, Henry Fanning, Isabelle King, Paul Prescott, Vincent Worden,
Instructors: Judith Deckers, Martha Jones.

The Department of Educational Services provides a program for Special Education majors in which stress is placed on professional competencies necessary to become an effective teacher in this field. Emphasis is placed on the use of appropriate teaching procedures, materials, and evaluation techniques. Practical experience in actual school situations is considered most important. This includes formal student teaching, and other required and voluntary experiences.

Special department requirements for Special Education majors include: ED 336, 391, 410, 411, 417, 420, 425, 426, 480, and 491. In addition to General Education requirements, courses required in other departments include: PY 228, IM 311, AR 374.

Special Education majors must have a concentration in one of the following fields: Emotionally Disturbed, Speech Therapy, Reading, Psychology, Sociology, Urban Education, or Kindergarten-Primary. Concentrations in other academic fields may be selected with approval of the department advisor. This concentration will consist of nine semester hours credit beyond General Education or department requirements.

The department sponsors an undergraduate concentration for Elementary majors in Reading and in Special Education.
The Department also provides a service course in Educational Measurement that is required in all Teacher Preparation programs and provides elective courses in Special Education, Reading and Guidance.

**Special Education**

**ED 336 Teaching Reading in Special Education** 3 crs.
Basic reading principles and skills; appropriate correctional and remedial techniques and materials for the child with limited ability. Audiovisual materials, phonics, and the clinical approach to teaching will be stressed. Assistant Professor King.

**ED 391 Supervised Student Teaching in Special Education** 6 crs.
The Paul A. Dever State School and the Wrentham State School residential schools for the mentally retarded, will serve as the laboratory in which students engage in the directed study of children in learning situations as they are encountered in special education classes. Students participate increasingly in the activities to the extent to which they can undertake the duties of the special class teacher. Frequent conferences with supervisors and specialists. The understanding of anecdotal records, case summaries, and behavior will be part of this program. Course work will be given concurrently. Associate Professor DeLeo, Assistant Professor Prescott, Assistant Professor King.

**ED 410 Introduction to Special Education** 3 crs.
A survey of all phases of special education emphasizing the program for mentally and physically handicapped children, for emotionally disturbed children, and for the academically talented. The slow learner and the perceptually handicapped will receive consideration. Associate Professor DeLeo and Assistant Professor Prescott.

**ED 411 Methods and Materials in Special Education** 3 crs.
Special emphasis will be placed on philosophy, general and specific aims, identification and classification, curriculum development, and the planning, developing, and guiding of pupil experiences in the educational program for retarded children. Assistant Professor Prescott and Assistant Professor King.

**ED 417 Teaching Emotionally Disturbed Children** 3 crs.
Prq.: PY 200 and ED 410.
Classroom facilities including carrels, learning experiences, administrative functions, educational materials and the administration of the program will be emphasized. Assistant Professor Ash and Assistant Professor Prescott.

**ED 425 Educational Procedures in Special Education** 3 crs.
A review of the educational procedures and curricula in all areas of exceptionality. Increased emphasis will be placed on identification, classification, placement, and the appropriate teaching procedures for each type. Associate Professor DeLeo and Assistant Professor Prescott.

**ED 426 Workshop in Special Education** 3 crs.
The practical aspects of special education techniques will be brought into focus through the use of off-campus facilities. In cooperation with area communities, research will be carried out to find methods and techniques for improving the effectiveness of special education programs. Associate Professor DeLeo, Assistant Professor Prescott and Assistant Professor King.

**ED 427 Guidance in Special Education** 3 crs.
Prq.: PY 200 and ED 410.
The complete diagnostic process, understanding of case summary, educational guidance throughout the school attendance, and vocational guidance. Assistant Professor Ash.
ED 491 Supervised Teaching in Public Schools—Special Education 6 crs.
Continuous supervised experiences under regular special class conditions will be provided. Experience will be gained in different teaching techniques, individual differences, and classroom management. Supervision by the cooperating teacher and the college supervisor should culminate in the assumption of at least one week of full time responsibility. Required of all Special Education majors. Associate Professor DeLeo and Staff.

Reading Services

ED 372 Success in Beginning Reading 3 crs.
A thorough examination of the language and perceptual backgrounds that children bring to the learning tasks of kindergarten and grade one; the initial steps in developing reading and writing skills; and the possibilities for the creative uses of these skills in the primary grades. Consideration will be given to the implications of the factors underlying such labels as “slow-learning,” “disadvantaged,” “dyslexic,” and “language-handicapped” children. Required of all Elementary majors with Kindergarten-Primary Concentration. Professor Deasy.

ED 435 Teaching Study Skills and the Uses of Reading 3 crs.
Opportunities open to classroom teachers for promoting voluntary reading through individualized reading, classroom specialties and curricular-related research projects. Consideration of the ways in which teachers can guide pupils to apply their basic reading skills as they study content subjects: locating, selecting, organizing information, preparing reports, setting their own purposes for reading. Assistant Professor Bizinkauskas.

ED 436 Remedial Reading Techniques for Classroom Teachers 3 crs.
Prq: ED 330 or ED 336 or permission of instructor.
Experience in analyzing learning needs, preparing remedial plans, and providing highly motivated, intensive instruction to overcome specific weaknesses. Testing and tutoring experiences with elementary children. Two lecture and two laboratory periods weekly. Professor Deasy.

Guidance and Measurement

ED 420 Educational Measurement 3 crs.
Procedures for developing and evaluating classroom teacher-made tests and a survey of standardized testing practices used in the K-12 program. Emphasis will be placed on the student’s intended area of, and/or level of concentration. Assistant Professor McGuirk and Assistant Professor Worden.

ED 430 Principles and Practices in Guidance 3 crs.
The philosophy and historical development of the guidance movement; the need for guidance; the nature of guidance services in the schools of today; the personnel, facilities, and procedures involved; and the role of the classroom teacher in guidance. Open to all seniors. Staff.

ED 485 History of Educational Thought 3 crs.
Research and evaluation of the theories of education from which present educational practices, policies, and theories have developed. Not offered in 1973-1974.

ED 487 History of American Education 3 crs.
ED 491 Supervised Teaching in Public Schools—Special Education 6 crs.
Continuous supervised experiences under regular special class conditions will be provided. Experience will be gained in different teaching techniques, individual differences, and classroom management. Supervision by the cooperating teacher and the college supervisor should culminate in the assumption of at least one week of full time responsibility. Required of all Special Education majors. Associate Professor DeLeo and Staff.

DEPARTMENT OF ELEMENTARY EDUCATION

Associate Professor Wayne F. Dickinson, Chairman
Professors: Robert MacCurdy, Robert Daniel.
Associate Professors: Rita Nadal, Dorothy Wood.
Assistant Professors: John Kent, Wayne Phillips, Gerald Thornell.
Instructor Thomas Wolpert.

The Department of Elementary Education strives to provide the student with the professional competencies necessary to become an effective elementary teacher, including an understanding of how students learn, and an ability to use appropriate teaching procedures, materials, and evaluation techniques. A very important part of the elementary teacher preparation is the provision for student teaching in actual school situations.

Specific department requirements for students majoring in Elementary Education include: ED 220, 330, 340, 350, 390, 462, and 492.

In addition to general education requirements, courses required in other departments include: ED 420, ED 480, IM 310, and PE 320.

Elementary majors must have a concentration in one of the following fields: English, Speech, Art, Music, Modern Languages, History, Urban Education, Anthropology, Psychology, Sociology, Biology, Earth Science, Chemistry, Physics, Physical Science, Mathematics, Library Science, Kindergarten-Primary, Reading, Special Education or Instructional Media. This concentration will consist of at least nine semester hours credit beyond the general education requirements.

Ed 220 Introduction to Strategies of Teaching 3 crs.
Taken by sophomore elementary majors as their first course in professional education. Observation of elementary-age children in a classroom setting, opportunity for actively working with such children, confirmation of the choice of teaching as a career and the beginning of the development of skills needed to be a successful teacher. Mr. Wolpert.

ED 330 Teaching of Reading in the Elementary School 3 crs.
Prq.: PY 200.
A consideration of how reading instruction is initiated, how basic reading abilities are developed, and how growth in voluntary reading is encouraged. The essentials of an effective developmental reading program will be examined with attention to organizing groups and evaluating progress. Professor Deasy, Assistant Professor Bizinkauskas, Instructor Deckers.
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<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>ED 340</td>
<td>Methods and Materials in Elementary Language Arts</td>
<td>3 crs.</td>
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<td>Prq.: PY 200.</td>
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<td>Stress on the new language-focused approach to English and the modern concepts of English grammar and usage. Creative strategies and ideas in teaching the skills and abilities of listening, speaking, and writing. Associate Professor Wood, Associate Professor Nadal.</td>
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<tr>
<td>ED 350</td>
<td>Methods and Materials in Elementary Mathematics</td>
<td>3 crs.</td>
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<td>Prq.: PY 200 and MA 107.</td>
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<td>Acquaintance with the purpose and content of the contemporary elementary school mathematics curriculum. A wide variety of effective teaching procedures and instructional materials designed to meet the varying abilities within the elementary school classroom. Assistant Professor Phillips.</td>
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<tr>
<td>ED 370</td>
<td>Kindergarten Theory and Methods</td>
<td>3 crs.</td>
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<td>Prq.: PY 200.</td>
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<td>The philosophy of modern kindergarten education including exploration of emerging theories and new approaches. Developmental characteristics and learning styles of the young child are studied and related to initial school experiences designed to foster maximum growth. Curriculum methods and materials are examined and evaluated. Opportunities will be provided to observe the kindergarten child in the classroom. Required of all Elementary majors with Kindergarten-Primary Concentration. Assistant Professor Doyle.</td>
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<tr>
<td>ED 390</td>
<td>Supervised Student Teaching in the Campus Schools</td>
<td>6 crs.</td>
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<td>Prq.: PY 200.</td>
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<td>The Campus Schools serve as laboratories in which students engage in the directed study of children in learning situations as they are encountered in a modern school. As the study progresses, students participate increasingly in the activities of the school to the point at which they can undertake the duties of the room teacher. Included are several hours of weekly conferences with the supervising teachers, and weekly seminars with specialists in the fields of art, music, speech, and physical education. Assistant Professor Dickinson and Staff.</td>
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<tr>
<td>ED 454</td>
<td>Seminar in Elementary Education</td>
<td>3 crs.</td>
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<td>A culmination of all professional experiences in preparation for teaching. Included are review and evaluation of current elementary school practices, discussion of professional ethics and school law, professional growth opportunities, procedures for securing a teaching position, and preparation for and the responsibilities of the first teaching position. Open to all Senior Elementary majors or by permission of Chairman. Assistant Professor Nadal.</td>
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<tr>
<td>ED 462</td>
<td>Science and Social Studies Methods and Materials in Elementary Schools</td>
<td>3 crs.</td>
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<td>Prq.: PY 200.</td>
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<td>The goals of scientific inquiry and responsible citizenship. The establishment of objectives and the selection of appropriate methods, materials, and techniques of planning to meet these objectives. Current trends in the teaching of both science and social studies. Innovative ideas found in the newer programs. Professor MacCurdy, Assistant Professor Thornell.</td>
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<tr>
<td>ED 474</td>
<td>Methods and Materials in Primary Education</td>
<td>3 crs.</td>
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<td>Prq.: PY 200.</td>
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<td>Ways of teaching Primary-Grade children, taking into consideration the basic philosophy of their education and promoting an understanding that each child is a unique individual. Stress of effective organization and management, what to teach, how to teach, the importance of skill development, the necessity for drill, and the use of practical creative techniques. Required of all Elementary majors with Kindergarten-Primary Concentration. Associate Professor Wood.</td>
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</table>
ED 492  Supervised Teaching in Public Schools—Elementary  6 crs.
Continuous supervised experience in all applicable elementary school activities. Experience in the study of individual differences, teaching techniques, and classroom management. Opportunities available in a variety of instructional environments. Supervision by the cooperating teacher and the college supervisor. Seminars may be held to exchange experiences. Students carry a minimum responsible teaching load equal to 50% of the cooperating teacher's assignment. Required of all Elementary majors. Full-time for one quarter. Associate Professor Baker and Staff.

ED 493  Supervised Teaching in Public Schools—Elementary  3 crs.
For Elementary majors concentrating in Special Education or Library Science who do not take ED 492, but do one-half their student teaching in elementary education and one-half in the area of their concentration. Similar to ED 492 but for one-half the time. Associate Professor Baker and Staff.

ED 494  Supervised Teaching in Public Schools—Special Education  3 crs.
Taken in combination with ED 493 by Elementary majors concentrating in Special Education who do one-half their student teaching in this area during which continuous supervised experiences under regular special class conditions will be provided. Associate Professor DeLeo and Staff.

ED 496  Supervised Teaching in Public Schools—Library Science  3 crs.
Prq.: LI 370, LI 430, LI 440.
Taken in combination with ED 493 by Elementary majors concentrating in Library Science who do one-half their student teaching in this area during which continuous supervised experiences in Library Science are provided. Associate Professor Bouchard and Staff.

DEPARTMENT OF ENGLISH

Professor Harold Ridlon, Chairman
Professors: Barbara Chellis, Joseph DeRocco, Charles McGinnis, Samuel Sheinfeld. Associate Professors: Frances Guerin, Mary Jarvis, Joseph Yokelson.
Assistant Professors: Marcia Anderson, Barbara Apstein, Thomas Curley, Harold DeLisle, Charles Fanning, Donald Johnson, Grant Keener, Joseph Liggera, James Nerney, George Smith, Phyllis Toback, Clifford Wood.
Instructors: Charles Angell, John Porter, Lois Poule, Judith Stanton, Paula Vadeboncoeur.

The program of study for English majors aims to give students an acquaintance with the history and background of English and American literature, an understanding of great literary works, and the ability to analyze, interpret, and appreciate what they read. Successful completion of EN 101, 102 (or their equivalent) is prerequisite to all other English courses.

A grade of C or above in EN 101, 102 is a prerequisite for continuation as an English major. Students majoring in English may well wish to take the following courses: EN 200, or its equivalent in composition above the freshman level; 221, 241, 305, 331 or 332; a minimum program for the major includes, in addition to EN 101, 102, 3 semester hours in each of the following: English literature before 1800; English literature after 1800; and American literature. The total for the major is not less than
DEPARTMENT OF ENGLISH

36 credits which may include the general education requirements of EN 101, 102, and 3 semester hours of literature.

Students majoring in English may meet the departmental foreign language requirement by successful completion of twelve hours of course work in one of the following combinations:

1. Six hours of elementary plus six hours of intermediate study in the same foreign language,
2. Six hours of intermediate plus six hours of advanced study in the same foreign language,
3. Six hours of intermediate foreign language study plus six hours of courses in "literature in translation" offered by the Foreign Language Department,
4. Students entering with study equivalent to or more than the intermediate level, must take six hours of advanced study in a foreign language or six hours of courses in "literature in translation."

EN 101, 102  English Composition  3 crs. for each semester.
The aim of English Composition is to develop greater awareness of the potential of the language, to encourage responsibility for its more effective use, and to provide opportunity for frequent directed practice in writing. Through the use of literary models such as essay, poem, short story, novel, and drama, students will be trained to think, speak, read and write more effectively. EN 101 is prerequisite to EN 102. Professor Ridlon and Staff.

EN 200  Advanced Composition  3 crs.
Expository writing is taught through frequent practice, analysis of models, and criticism by instructor and students. Opportunity is available for the student to develop his writing in any specific area he chooses, but emphasis will be on satire, argument, critical analysis, exposition, and description. Some attention will be given to the major developments in English prose style since 1600. Professor DeRocco and Staff.

EN 201  Writing and the Teaching of Writing  3 crs.
Writing, criticism, creativity. Student participation in criticism as a learning device and as a means to a reasonable load for the teacher. Objective is to improve the student's writing skill by the same techniques he can use in teaching the skill. Text by Don Murray. Assistant Professor Nerney.

EN 211, 212  Literary Classics of Western Civilization  3 crs. for each semester.
Through classic examples of epic, myth, sacred history, parable, allegory, tragic and comic drama, philosophical dialogue, satire, lyric, and novel, the student will be introduced to the principal literary forms through which great writers, from ancient times to the twentieth century, have contributed to the religious, intellectual, moral, and esthetic traditions of Western culture. Associate Professor Guerin and Staff.

EN 215  Comparative Drama  3 crs.
A study of plays of different periods dealing with the same mythological or historical themes. Included will be plays on the Oedipus theme, from Sophocles to Cocteau; plays about the House of Atreus, from Aeschylus to Sartre; plays about Antony and Cleopatra, from Shakespeare to Shaw; and plays about Joan of Arc, from Schiller to Anouilh. The larger purpose of the course will be to explore the freedom within limits of an artist who chooses to work with established plot materials. Assistant Professor Anderson.
EN 221, 222  Major English Writers  3 crs. for each semester.
Representative works by the major English writers will be studied both formally and historically to develop an understanding of the genres, styles, and themes which characterize English imaginative and critical writing. The first semester will examine works from the Anglo-Saxon period to the eighteenth century; the second, works of the nineteenth and twentieth centuries. Associate Professor Yokelson and Staff.

EN 225  The Theme of Love
Various literary treatments of the theme of love will be approached through such works as the following: Chaucer, Troilus and Criseyde; Donne, Poetry; Shakespeare, Romeo and Juliet, Antony and Cleopatra; Dryden, All for Love; Byron, Don Juan, Cantos I-IV; Bronte, Wuthering Heights; Browning, Poems; Henry James, The American or The Portrait of a Lady; Lawrence, Sons and Lovers; Hemingway, A Farewell to Arms. Associate Professor Yokelson.

EN 230  Creative Writing  3 crs.
Fiction, non-fiction, verse, drama or any experimental forms may be undertaken by the student. Class discussions will center on the examination of both professional and student efforts. Frequent conferences will be held with individual students. Assistant Professors DeLisle and Wood.

EN 231, 232  Major American Writers  3 crs. for each semester.
A general survey of American Literature from the colonial beginnings to the present. Writers such as Franklin, Edwards, Irving, Poe, Hawthorne, Emerson, Whitman, Dickinson, Twain, James, Frost, Eliot, Faulkner, and Hemingway will be studied in their social and cultural contexts. Assistant Professor Anderson and Staff.

EN 235  The Short Novel
Prq.: consent of the instructor.
Works selected from such writers as Conrad, James, Faulkner, Mann, Kafka, and Dostoievsky. Professor Sheinfeld.

EN 238  The Short Story  3 crs.
The primary focus will be on the examination of the relationship between form and content in several British, American, and continental short stories. A secondary concern will be the historical development of the genre. Assistant Professor DeLisle.

EN 241, 242  Shakespeare
A general introduction to Shakespeare’s plays set against the background of the times. Representative selections from the tragedies, comedies, and histories will be studied in detail. Professor Ridlon and Staff.

EN 260  Literature of the Continental Renaissance  3 crs.
Selected works of Petrarch, Boccaccio, Machiavelli, Erasmus, Castiglione, Rabelais, Cellini, Montaigne, Cervantes, and Ronsard representing prevailing literary themes and techniques. Lectures and discussions on the art, history, philosophy, and music of the age will be offered by faculty in these disciplines. Assistant Professor DeLisle.

EN 280  Journalism
Students will be helped to develop skills in copyediting and proofreading with special emphasis given to objective news story writing. Some attention will be given to dramatic criticism and sports writing. The workshop approach will be used.
EN 290  Realism and Naturalism in American Literature  3 crs.
Studies in the fiction of Howells, James, Stephen Crane, Frank Norris, Theodore Dreiser, and in the twentieth-century extensions of realism in the novels of writers such as Sinclair Lewis, Sherwood Anderson, Dos Passos and Farrell. Attention will also be paid to the proselytizing criticism of the first generation of realists, notably James's Prefaces and Howells' essays. Assistant Professor Fanning

EN 305  History of the English Language  3 crs.
Origins and development of English. Selected readings in Old and Middle English. Professor Sheinfeld.

EN 311  The Negro in U. S. Literature  3 crs.
Prq.: EN 231 or EN 331 or consent of the instructor.
Autobiographies and fiction beginning chronologically with The Life of Frederick Douglass, with particular attention paid to Uncle Tom's Cabin, Native Son, and Invisible Man. Professors Chellis and Associate Professor Yokelson.

EN 312  Studies in Modern British Fiction  3 crs.
Prq.: EN 222 or consent of the instructor.
Readings in selected twentieth-century British novelists, such as: E. M. Forster, D. H. Lawrence, James Joyce, and Graham Greene. Associate Professor Yokelson.

EN 314  Medieval English Literature  3 crs.
Prq.: EN 211, or EN 221 or consent of the instructor.
Selected readings in non-Chaucerian writing: Langland, Gower, romance, lyrics, drama. Associate Professor Jarvis.

EN 320  Chaucer  3 crs.
Prq.: EN 222 or consent of the instructor.
Troilus and Criseyde and selected readings from the Canterbury Tales. Professor Sheinfeld, Assistant Professor Apstein.

EN 322  The Age of Pope  3 crs.
The literature of the neo-classical period, with emphasis on the works of Pope, Swift, Gay, Addison and Steele. Assistant Professor Johnson.

EN 323  Linguistics  3 crs.
The generative-transformational theory of syntactic structures as applied to the English language. Selected readings on various aspects of linguistics. Professor Sheinfeld, Assistant Professor Wood.

EN 324  Linguistic History of the English Language  2 crs.
Readings and linguistic analysis of Old, Middle and Modern English. Four periods weekly for one quarter. Professor Sheinfeld.

EN 330  Modern American Fiction  3 crs.
Prq.: EN 232 or consent of the instructor.
American fiction since World War II: Warren, Mailer, Salinger, Bellow, Ellison, Malamud, and others. Associate Professor Yokelson.

EN 331  U. S. Literature in the Nineteenth Century  3 crs.
Selected readings in C. B. Brown, Cooper, Hawthorne, Poe, Emerson, Thoreau, Whitman, and Dickinson. Professor Chellis, and Staff.
EN 332  U. S. Literature in the Nineteenth Century  3 crs.
Prq.: EN 231 or EN 331.
The novels and tales of Melville, Twain, Hawthorne, and James. Professor Chellis, and Staff.

EN 335  Elizabethan and Jacobean Drama  3 crs.
Reading and discussion of a number of plays with attention to contemporary social developments as well as to the historical development of the English play. Associate Professor Jarvis.

EN 340  Literature of the English Renaissance  3 crs.
The non-dramatic literature of the Age of Shakespeare including the reading of works by such writers as Sidney, Spenser, Nashe, Marlowe, and Drayton. Although the emphasis will be on textual analysis, the historical, social, and cultural background of the period will also be considered. Staff.

EN 346  Southern Literary Renaissance  3 crs.
Beginning with the Fugitives in the 1920's (Robert Penn Warren, Allen Tate, John Crowe Ransom, and Donald Davidson primarily) and their concern with the problem of the Southern writer's identity as both a Southerner and an artist, the focus will center on the writings of such contemporary figures as William Faulkner, Tennessee Williams, Katherine Anne Porter, Flannery O'Connor, Carson McCullers, Eudora Welty, and Peter Taylor. Assistant Professor Watson.

EN 350  Modern English Novel  3 crs.
A selective survey of major contributors to the English novel from Joseph Conrad through the school of the "Angry Young Men." Major attention will be given to the analysis of specific texts. Associate Professor Yokelson.

EN 353  Modern European Drama  3 crs.
Main forces in Modern European drama starting with Ibsen. Associate Professor Guerin.

EN 356  Modern American Drama  3 crs.
Selected plays of dramatists from O'Neill to Albee. Associate Professor Guerin.

EN 360, 361  The English Novel  3 crs. for each semester.
The development of the English novel, including the works of Defoe, Richardson, Fielding, Smollett, Sterne, Austen, and Scott in the first semester, and Dickens, the Brontes, Thackeray, Eliot, Trollope, Conrad, and Hardy in the second semester. Assistant Professor Toback.

EN 365  Victorian Prose and Poetry  3 crs.
The major emphasis will be placed on the poetry of Tennyson, Browning, and Arnold, but the works of other nineteenth-century poets such as Hopkins and Hardy will also be read and discussed. The essays of Carlyle, Arnold, Newman, Huxley, and others will be read in conjunction with the poetry. Assistant Professors DeLisle and Nerney.

EN 366  Tennyson, Browning, and Arnold  3 crs.
These major nineteenth century authors will be studied in some detail, with particular reference to the historical, social, and cultural milieu within which they wrote. Assistant Professor DeLisle.

EN 367  English Literature of the 1890's  3 crs.
The minor writers of the late nineteenth century will be examined from an esthetic, social, and intellectual point of view. Staff.

EN 370  Seventeenth Century Literature  3 crs.
This course is an introduction to the prose and poetry of the Seventeenth Century in England, exclusive of Milton. Such writers as Donne, Jonson, Bacon, Burton, Browne, and Dryden will be examined, and various persistent elements, such as the classical influence, will be explored. Professor McGinnis.
EN 380 Milton  
The main poetical works of Milton: Paradise Lost, Paradise Regained, and Samson Agonistes, the minor poetical works, and selected prose. Associate Professor McGinnis.

EN 383 Modern Irish Literature  
Irish writing from 1890 to the present, with special emphasis on the works of Yeats, Synge, O’Casey, Joyce, O’Conner, and O’Faolain. Assistant Professor Gannon.

EN 386 English Romantic Poets  
Selected poetry and prose of Wordsworth, Coleridge, Shelley, and Keats will be studied with the principal object of understanding the character and modes of expression of each poet’s imaginative vision. Consideration will be given to historical background and to developments in philosophy and esthetic theory which have a direct bearing on Romantic poetry. Professor DeRocco.

EN 387 Indo-Anglian Literature  
Literature written in English by Indian writers. The emphasis will be on fiction, particularly the novels and short stories dealing with the conflict between old and new in Indian national life. Staff.

EN 390 Literary Criticism  
The history of literary criticism from Aristotle to the present. Emphasis will be placed on those persistent esthetic, psychological, social, and cultural patterns which have helped shape the literature of our own age. Professor DeRocco.

EN 391 Modern Literary Criticism  
Several twentieth-century approaches to literary analysis, interpretation, and evaluation. Particular attention will be given to literary concepts derived from psychoanalysis, sociology, anthropology, semantics, philosophy, and theology. Such topics as existentialist criticism, the “new criticism,” and the theory of myth and symbol will be considered. Assistant Professor Watson.

EN 393 Modern British Poetry  
The major British poets of the twentieth century, with particular emphasis on the works of Hopkins, Yeats, Eliot, and Thomas. Staff.

EN 394 Modern American Poetry  
The major American poets of the twentieth century, with particular emphasis on the works of Robinson, Frost, Crane, Auden, Williams, and Stevens. Staff.

EN 395 Studies in Recent American Poetry  
Intensive study of some of the major figures in American poetry of the past ten or fifteen years: Theodore Roethke, Robert Lowell, and John Berryman will certainly be included. Also, three or four poets to be selected from the following list: Richard Eberhart, Richard Wilbur, W. D. Snodgrass, W. S. Merwin, Sylvia Plath, James Wright, James Dickey, Randall Jarrell, Gary Snyder. Assistant Professor Fanning.

EN 400 Techniques of Literary Research  
Research procedures, with special reference to the materials and methods of literary study and publication. Various critical approaches to literature will be examined, and some evaluation of scholarly procedure will be made. Professor Ridlon.

EN 420 English Education Seminar  
Limited in enrollment to seniors contemplating secondary school teaching. The problems of English education in a rapidly changing social, cultural, and intellectual environment. Reports, small group discussions, and meetings with professionals in the field. Assistant Professor Wood and Staff.
EN 492 Reading and Research  
Credits arranged
Independent study under the guidance of individual members of the department. To be considered for admission, one must be a senior of honors standing and must submit a general proposal for a topic or area of study. Professor Ridlon and Staff.

EN 495 Seminar in English Literature 3 crs.
This seminar, limited to seniors, honors candidates, and graduate students, will pursue in depth certain themes and authors in English literature, the topic changing from year to year. Staff.

EN 496 Seminar in American Literature 3 crs.
This seminar, limited to seniors, honors candidates, and graduate students, will pursue in depth certain themes and authors in American literature, the topic changing from year to year.

EN 497 Seminar in World Literature 3 crs.
This seminar, limited to seniors, honors candidates, and graduate students, will pursue in depth certain themes and authors in world literature, the topic changing from year to year.

Humanities Elective

HU 201 Comparative Religion 3 crs.
An examination of the origins, development, and basic tenets of the major world religions from earliest times to the Moslem era, with particular emphasis on ancient Near Eastern religions, Judaism, Christianity, and Islam. Assistant Professor Christensen.

DEPARTMENTS OF HEALTH AND PHYSICAL EDUCATION

MEN'S DEPARTMENT
Associate Professor Harry Lehmann, Chairman
Associate Professors: Henry Gurney, Thomas Knudson, Edward C. Swenson
Assistant Professors: Edward Braun, Peter Mazzaferro
Instructor: Joseph Yeskewicz

WOMEN'S DEPARTMENT
Professor Catherine Comeau, Chairman
Associate Professor: Patricia Phillips
Professor: Mary Lou Thornburg
Assistant Professors: Ann Coakley, Regina Gross, Virginia Hogg, Shirley Krasinski, Hazel Schopp, Johanne Smith, Sharon Tufts, Cora Wells.
Instructors: Margot Hurst, Marjorie Rugen, Carol Wolfgram

The Men's and Women's Departments jointly offer a program leading to the degree of Bachelor of Science in Education with a major in Health and Physical Education for men and women, and Health and Physical Education courses for all students.

The Health and Physical education major is designed to prepare students for teaching and other fields related to Health and Physical Education. The course of study includes General Education, education and professional courses so as to provide the student with both personal enrichment and professional preparation.
*In addition to the General Education requirements, students majoring in Health and Physical Education must satisfactorily complete the following courses: PE 116, 117, 124, 216, 217, 218, 324, 413, HE 100, 101, 102, 200, 401 and PEM 132W, 133M or W, 140W, 141M, 143M, 145M, 155, 160, 161, 162W, 164, 185, 186M or W, 187, 224M, 244M, 262W, 285, 286W, ED 392, 471, 480 and students must elect a concentration in elementary physical education, secondary physical education, or both. The elementary concentration courses are: PE 219, 326, 327. The secondary concentration courses are: PE 321 and 3 credits of activity electives.

All students (with the exception of Physical Education Majors) must successfully complete HE 110, and three semesters of physical education activity courses. Students may elect any physical education activity course, providing they meet the pre-requisites for the course. Some courses are offered at different levels, (I—beginner, II—intermediate, III—advanced) so that students may pursue an activity in greater depth.

ED 392 Supervised Student Teaching in the Campus Laboratory School
3 crs.
A Professional semester of supervised teaching experiences in the major areas of physical education for elementary school children. Open to juniors majoring in Health and Physical Education. Assistant Professors Schopp, Gross, and Miss Rigen.

ED 471 Supervised Student Teaching in Public Schools
6 crs.
Full-time teaching for one quarter with supervision provided by members of the department faculty. Staff.

HE 100 Anatomy
3 crs.
Includes a fundamental study of the human body and its parts, with special emphasis on bones, muscles, and tissues. Assistant Professors Tufts and Braun.

HE 101 Kinesiology
3 crs.
Prq.: HE 100.
Detailed anatomical and mechanical analyses of fundamental motor skills. Assistant Professors Tufts and Braun.

HE 102 Health Science
3 crs.
Attitudes and practices as they influence effective living; common adult health problems; community health standards and services; special problems of concern in the area of community health. Associate Professor Phillips.

HE 110 Personal Health
2 crs.
Attitudes and practices as they influence effective living; common adult health problems; community health services and adult responsibility. Associate Professors Gurney, Phillips, Assistant Professor Hogg.

HE 200 Principles and Practices of Health Education
3 crs.
Selection of content for health courses with emphasis on current trends; analysis of the learning and teaching process as applied to health education. Associate Professor Gurney.

*This curriculum is not totally applicable to the class of 1974 and 1975.
### DEPARTMENTS OF HEALTH AND PHYSICAL EDUCATION

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td><strong>HE 300</strong></td>
<td>Current Issues in Health Education</td>
<td>3 crs.</td>
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<tr>
<td>Prq.: HE 102</td>
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<tr>
<td>Designed to acquaint the student with current health issues and trends related to the school and community. Associate Professor Gurney.</td>
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<tr>
<td><strong>HE 302</strong></td>
<td>First Aid and Advanced First Aid</td>
<td>1 cr.</td>
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<tr>
<td>A theory and practice course in the immediate care of injuries and their prevention. To be announced.</td>
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<tr>
<td><strong>HE 303</strong></td>
<td>Care and Prevention of Athletic Injuries</td>
<td>3 crs.</td>
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<tr>
<td>Theory and practice in bandaging, taping, and caring for athletic injuries. Also emphasis on prevention and rehabilitation. Assistant Professor Braun.</td>
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<tr>
<td><strong>HE 401</strong></td>
<td>Physiology of Exercise</td>
<td>3 crs.</td>
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<td>Prq.: BI 385</td>
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<td>Includes the study of various systems, their interrelationships and adjustments during exercise and as a result of training. Emphasis is on current research findings and what remains to be discovered in man as a moving being. Assistant Professor Tufts.</td>
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<tr>
<td><strong>PE 116</strong></td>
<td>Introduction to Physical Education</td>
<td>3 crs.</td>
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<td>An overview of the field of Physical Education as an integral part of education with emphasis on current trends, philosophy, objectives, relationship of the field to man, society and the role and responsibilities of the Physical Educator. Professor Comeau and Associate Professor Lehmann.</td>
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<tr>
<td><strong>PE 117</strong></td>
<td>Foundations in Study of Human Movement</td>
<td>3 crs.</td>
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<td>An historical study of the development of man and movement will be undertaken with emphasis on the biological, psychological, sociological, cultural and philosophical implications. This course is designed to lay the foundation and provide for the understandings necessary to approach the study of physical education as a discipline in the twentieth century. Associate Professor Phillips.</td>
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<tr>
<td><strong>PE 124</strong></td>
<td>Introduction to Physical Education Laboratory</td>
<td>1 cr.</td>
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<tr>
<td>Fundamentals of movement as it relates to all physical activity. Assistant Professor Smith and Mr. Yeskewicz.</td>
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<td><strong>PE 216</strong></td>
<td>Physical Education Curriculum</td>
<td>3 crs.</td>
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<tr>
<td>Study of current trends and theories of curriculum design and their application to the development of the Physical Education Program, grades K-12. Professor Thornburg.</td>
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<tr>
<td><strong>PE 217</strong></td>
<td>Principles of Motor Learning</td>
<td>3 crs.</td>
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<tr>
<td>Introduces the student to the concepts and principles concerned with learning and performance of movement skills. Assistant Professor Smith.</td>
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<tr>
<td><strong>PE 218</strong></td>
<td>Survey of Teaching</td>
<td>2 crs.</td>
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<td>An opportunity to observe and to participate in a variety of teaching situations pertaining to Physical Education; to study and discuss various methods of teaching; to develop seasonal plans and lesson plans; to evaluate teaching aids and materials; to evaluate the pupils' performance and the teaching program. To be announced.</td>
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<tr>
<td><strong>PE 219</strong></td>
<td>Movement Education in Elementary Schools</td>
<td>4 crs.</td>
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<td>Designed to introduce the movement experiences of children in the elementary schools. Emphasis is placed on self awareness through movement, on discovering and understanding the environment and on controlling and adjusting to the environment. 5 periods weekly. Assistant Professor Schopp.</td>
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PE 220   Expressive Movement  
Creative exploration of individual and group movement to develop the kinesthetic sense and its artistic use. These movement experiences will help the individual's projection of self in his interaction and communication with others. Assistant Professor Wells.

PE 317   Perceptual Motor Learning and Gymnastics  
Introduction to perceptual motor functioning of elementary school children with supervised opportunities to analyze knowledge and apply practical experiences. Gymnastics at the elementary school level will give primary consideration to teaching and sporting techniques. Two lecture and two laboratory periods weekly. To be announced.

PE 318   Evaluation in Physical Education  
Principles of effective evaluation. Application of principles through choice and administration of tests and other measurement devices. Interpretation and use of obtained results. To be announced.

PE 319   Physical Education for Exceptional Children and Youth  
The planning and development of physical education programs considered appropriate to the needs, interests and abilities of exceptional children and youth. Emphasis will be placed on the contribution that physical education can make to the education and well being of the physically, mentally and emotionally handicapped child. Assistant Professor Smith.

PE 320   Physical Education for the Elementary Teacher  
An introduction to the philosophy, objectives, and activities of the elementary physical education program with emphasis on the part played by the classroom teacher. Provision for visits to the Campus Laboratory School. Assistant Professor Schopp and Krasinski.

PE 321   Secondary School Physical Education  
In depth study of physical education program grades 7-12. Emphasis on educational philosophies and policies, teaching-learning process, and program implementation in the contemporary setting. Professor Thornburg.

PE 322   Rhythmic Analysis in Dance and Related Movement  
Prq.: 3 semesters of PE activities. 
Emphasis on relationship of rhythm and basic dance skills, composition of dances, motor skills performed to music or to rhythm, and methods of teaching folk, round, and square dance. Associate Professor Phillips.

PE 323   Analysis of Movement Skills for Elementary Schools  
Prq.: 3 semesters of PE activities, PE 320. 
Performance of fundamental movement skills and sports skills through required lecture and directed laboratory experiences. Two lecture and two laboratory periods weekly. Assistant Professor Krasinski.

PE 324   Adapted Physical Education  
A course designed to introduce students to the physical education programs suited to children and youth with disabilities who require a restricted or individualized physical education program. An opportunity to observe and work with children with disabilities is provided. Assistant Professor Smith.

PE 325   Recreation in the United States  
The history of recreation and its impact on society today and in the future; school camping, camp counseling, outdoor recreation, and recreation in the elementary school program. Assistant Professor Gross.
PE 326 Movement Experiences I 1 cr.
A laboratory analysis of the movement elements of time, force and space which includes basic skills. Emphasis will be placed on the cognitive development of fundamental movement skills. Assistant Professor Krasinski.

PE 327 Movement Experiences II 1 cr.
A practical application of specific skills and refined movement patterns related to games, rhythm activities, sport and gymnastics. Experiences will be directed towards children's needs throughout elementary school. To be announced.

PE 409 Scientific Foundations of Physical Education 3 crs.
Prq.: PY 224, PE 320. Integration of the concepts of anatomy, kinesiology, and physiology of exercise relative to a program of elementary physical education. Application is made to the characteristics of growth and development of children in structuring physical activity to their needs. Assistant Professor Tufts.

PE 410 Physical Education in Agency Programs 3 crs.
In depth study of physical education within the social agency setting with emphasis on program development and instruction supplementing the normal school program. To be announced.

PE 411 Organization and Administration of Health, Physical Education and Recreation 3 crs.
Development of policies; administrative practices; interfaculty and intrastaff relationships; supervision; public relations; fiscal practices; development and use of facilities. Associate Professor Lehmann.

PE 412 Independent Study 3 crs.
Open to Junior and Senior Health and Physical Education Majors. Approval of the Department Chairman required. An opportunity to do independent study and develop a project or do research in an area of interest in Health or Physical Education. Students will be assigned faculty advisors with whom they will meet at regular intervals. Staff.

PE 413 Current Issues in Physical Education 3 crs.
The examination and description of contemporary forces and trends in education and their implications for physical education. Opportunities will be available for students to present orally and in writing ideas relevant to professional concerns. Professor Comeau.

PE 414W Coaching 3 crs.
Open to Junior and Senior Health and Physical Education Majors. The application of teaching and learning principles as related to the player, team, coach and athletic program. Areas to be included will be psychology and philosophy of coaching, organization and administration of the program, coaching techniques, conditioning and evaluative procedures. Staff.

PE 415M Methods and Techniques in Coaching Baseball 1 cr.
Individual offensive and defensive fundamentals; offensive and defensive team play; administration. Associate Professor Lehmann.

PE 416M Methods and Techniques in Coaching Basketball 1 cr.
The theory and practice of basketball coaching; including the study of offensive and defensive systems, drills, training and conditioning of basketball squads. Associate Professor Knudson.

PE 417M Methods and Techniques in Coaching Football 1 cr.
History of football; fundamentals of line and backfield play; team defense and offense; field generalship; scouting; athletic injuries; study of rules. Assistant Professor Mazzaferro.
DEPARTMENTS OF HEALTH AND PHYSICAL EDUCATION

PE 418M Methods and Techniques in Coaching Gymnastics 1 cr.
Open to all students who have completed their physical education requirements. Emphasis on teaching techniques to help develop a competitive Gymnastics Team. To be announced.

PE 419M Methods and Techniques in Coaching Ice Hockey 1 cr.
Practice and Theory of Fundamental Ice Hockey Techniques. To be announced.

PE 420M Methods and Techniques in Coaching Lacrosse 1 cr.
The theory and practice of Lacrosse coaching; including the study of offensive and defensive fundamentals and systems, drills, training and conditioning of Lacrosse squads. To be announced.

PE 421M Methods and Techniques in Coaching Soccer 1 cr.
Teaching the skills of kicking, trapping, heading, dribbling, tackling, throwing; defensive and offensive soccer. Associate Professor Swenson.

PE 422M Methods and Techniques in Coaching Track and Field 1 cr.
How to train for track and field events. Form and technique in track and field. Associate Professor Swenson.

PE 423 Methods and Techniques in Coaching Swimming 1 cr.
Open to all students who have an American Red Cross Senior Life Saving Certificate. Emphasis placed on organizing, developing, and training Swim Teams on the Age Group and High School level. Mr. Yeskewicz.

PE 424M Methods and Techniques in Coaching Wrestling 1 cr.
Fundamentals in free-style wrestling with emphasis on basic maneuvers. Theory and practice work. To be announced.

PE 425M Officiating Baseball 1 cr.
Rules and techniques in officiating baseball; organizations of officials; practical experience. Associate Professor Lehmann.

PE 426M Officiating Basketball 1 cr.
Rules and techniques in officiating basketball; organizations of officials; practical experience. Associate Professor Lehmann.

PE 427M Officiating Football 1 cr.
Rules and techniques in officiating football; organizations of officials; practical experience. Associate Professor Lehmann.

PE 428M Officiating Soccer 1 cr.
Rules and techniques in officiating soccer; organizations of officials; practical experience. Associate Professor Swenson.

PE 429W Officiating Field Hockey 1 cr.
Techniques of officiating Field Hockey. Practical as well as theoretical examinations are included with opportunity to earn a recognized rating. Staff.

PE 430W Officiating Basketball 1 cr.
Techniques of officiating Basketball. Practical as well as theoretical examinations are included with opportunity to earn a recognized rating. Staff.

PE 431W Officiating Volleyball 1 cr.
Techniques of officiating Volleyball. Practical as well as theoretical examinations are included with opportunity to earn a recognized rating. Staff.
DEPARTMENTS OF HEALTH AND PHYSICAL EDUCATION

Physical Education Activity Courses
for all students

Coeducational courses:
Archery I  Badminton I  Modern Dance I
Aquatics  Badminton II Modern Dance II
  Diving      Bowling I  Modern Dance III
  Life Saving Bowling II  Movement & Relaxation
  Scuba Diving Fencing I  Skiing I
  Swimming I Fencing II  Square Dance I
  Swimming II Folk Dance I  Tennis I
  Swimming III Golf I  Tennis II
  Water Safety Instructors Golf II  Volleyball I
  Synchronized Swimming Gymnastics I  Volleyball II

Courses for Men:
Basketball I, II  Softball
Conditioning  Track & Field
Flag Football  Weight Training
Lacrosse  Wrestling
Soccer

Courses for Women:
Basketball I, II
Softball

Physical Education Activity Core Courses for Health
and Physical Education Majors
(Letter following number indicates course for
men (M), women (W), no letter coeducational)

Coeducational Courses:
PES 155 Swimming I .5 cr  PES 185 Gymnastics I .5 cr
PES 160 Survey of Dance .5 cr  PES 187 Tennis I .5 cr
PES 161 Folk Dance I .5 cr  PES 285 Gymnastics II .5 cr
PES 164 Square Dance I .5 cr

Courses for Men:
PES 133M Basketball I .5 cr  PES 186M Track & Field I .5 cr
PES 141M Soccer .5 cr  PES 224M Progressive
PES 143M Volleyball I .5 cr  Resistance Exercises .5 cr
PES 145M Flag Football .5 cr  PES 244M Baseball/Softball .5 cr

Courses for Women:
PES 132W Field Hockey I .5 cr  PES 186W Track & Field I .5 cr
PES 133W Basketball I .5 cr  PES 262W Modern Dance II .5 cr
PES 140W Lacrosse I .5 cr  PES 286W Track & Field II .5 cr
PES 162W Modern Dance I .5 cr
Coeducational Courses

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<tr>
<td>PEM 180 Bowling I</td>
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<td>PEM 289 Golf II</td>
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<td>PEM 181 Archery I</td>
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<td>PEM 351 Swimming III</td>
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<td>PEM 188 Badminton I</td>
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<td>PEM 354 Skin &amp; Scuba Diving</td>
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<td>PEM 189 Golf I</td>
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<td>PEM 355 Boating &amp; Canoeing</td>
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<td>PEM 254 Water Stunts and Diving</td>
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<td>PEM 362 Modern Dance III</td>
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<td>PEM 255 Swimming II</td>
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<td>PEM 364 Square Dance Calling</td>
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<td>PEM 261 Folk Dance II</td>
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<td>PEM 385 Gymnastics III</td>
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<td>PEM 279 Fencing II</td>
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<td>PEM 287 Tennis II</td>
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<td>PEM 396 Skiing I</td>
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<td>PEM 254 Advanced Recreational Aquatics</td>
<td>.5</td>
<td>PEM 454 Advanced Recreational Aquatics</td>
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<td>Courses for Men:</td>
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<td>PEM 140M Lacrosse I</td>
<td>.5</td>
<td>PEM 240M Lacrosse II</td>
<td>.5</td>
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<td>PEM 233M Basketball II</td>
<td>.5</td>
<td>PEM 286M Track &amp; Field II</td>
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Courses for Women:

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<td>PEM 141W Soccer I</td>
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<td>PEM 233W Basketball II</td>
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<td>PEM 143W Volleyball I</td>
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<td>PEM 240W Lacrosse II</td>
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<td>PEM 232W Field Hockey II</td>
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<td>PEM 332W Softball</td>
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DEPARTMENT OF HISTORY

Professor Jordan Fiore, Chairman
Commonwealth Professor Annabelle Melville.
Associate Professors: Gerald Doiron, Donald Keay, Dennis Lythgoe, Mary Noel, Arthur Oien, Maurice Rotstein, Benjamin Spence.
Assistant Professors: Duane Christensen, Lucille O'Connell, Philip Silvia, Jr., Jean Stonehouse, Alfred Wolff.
Instructors: Thomas Turner, David Culver.

The department has four objectives: 1) to contribute to the general education program by offering history courses to all students; 2) to prepare students planning to teach history on the secondary level; 3) to provide a breadth in history enabling students to do graduate work in the field of history; and 4) to offer advanced courses to those majoring in the elementary curriculum to enable them to enrich the teaching of history at that level.

Those majoring in history, after completing HI 111, 112, 221, and 222 (for a total of 12 credits) will take 12 to 24 additional credits in advanced history courses in their third and fourth years. In the junior year, six credits will be taken in history courses other than in United States History. In the senior year history majors will take at least one 4.5 credit hour course in a history other than United States History. All students majoring in history will take a seminar in the second semester of the senior year. Students in an interdepartmental major (history-political science, history-psychology, history-sociology, history-anthropology, history-behavioral science) will fulfill the same history requirements that history majors do through the junior year.

An intermediate level, or its equivalent.

Those who wish to combine courses from other areas with history as a major concentration may do so with the approval of the department chairman. Non-history majors may take advanced courses in history provided they have already completed HI 112, 222.

HI 111 Western Civilization to 1715 3 crs.
A historical survey of developments which have molded our culture from ancient times down to the establishment of absolutism. Professor Fiore and Staff.

HI 112 Western Civilization since 1715 3 crs.
Prq.: HI 111.
Continuation of the survey begun in HI 111 down to contemporary times. Professor Fiore and Staff.

HI 221 United States and Constitutions to 1865 3 crs.
Development of the nation from the age of exploration to the end of the Civil War. Professor Fiore and Staff.

HI 222 United States History since 1865. 3 crs.
Continues the study begun in HI 221 down to the present. Professor Fiore and Staff.
**DEPARTMENT OF HISTORY**

**HI 315  Nineteenth Century Europe**  
3 crs.  
From the Napoleonic era to the eve of the First World War. Associate Professor Rotstein.

**HI 316  Twentieth Century Europe**  
3 crs.  
Particular focus on background, development, and effects of the two world wars. Associate Professor Rotstein.

**HI 317  British Political History since 1603**  
3 crs.  
England and her empire to 1815 with stress on parallel developments in American history, including economic and social factors. Commonwealth Professor Melville.

**HI 318  British Empire and Commonwealth since 1815**  
3 crs.  
Political development to the present with emphasis on the rise and fall of the Second Empire. Commonwealth Professor Melville.

**HI 319  Topics in British History**  
3 crs.  
Primarily for majors in English. Selected areas of political, economic, and social British life which nurtured the national literature. Commonwealth Professor Melville.

**HI 321  Topics in Recent American History**  
3 crs.  
Prq.: HI 222.  
The isolationism and boom of the 1920's, the New Deal, World War Two, and the postwar period. Associate Professor Spence.

**HI 325  American Labor History**  
3 crs.  
The pre-industrial and industrial periods. Emphasis on the reciprocal relationships of workingmen, Negroes, immigrants, and urbanization and industrialization. Professor Cole.

**HI 326  The American West**  
3 crs.  
The westward movement, emphasizing the distinctive character of that region in its economic, social, political, and intellectual life. Associate Professor Lythgoe.

**HI 327  The American South**  
3 crs.  
Sectionalism; its causes and consequences; factors which made the South distinctive; emphasis on race relations, the Civil War and Reconstruction, agrarianism, industrialization. Assistant Professor Wolff.

**HI 333  Spanish America: the Colonial Period**  
3 crs.  
Indigenous peoples of the area; exploration and conquest; institutional development of the empire to the revolts against Spain in the nineteenth century. Professor Herrick.

**HI 334  Spanish America: the National Period**  
3 crs.  
Prq.: HI 333.  
From the revolutions against Spain to the present. Concentration on Mexico and two or three other states. Professor Herrick.

**HI 343  The Ancient World: Near East and Greece**  
3 crs.  
From prehistoric times to the Hellenistic empires. Associate Professor Keay.

**HI 344  The Ancient World: Rome**  
3 crs.  
From its beginnings to the barbarian invasions. Associate Professor Keay.

**HI 353  Historiography**  
3 crs.  
Prq.: Admission with consent of the department chairman and the instructor.  
Writings of major historians; evaluation through professional journals and book reviews. Limited to fifteen. Students are expected to elect HI 354. Commonwealth Professor Melville.
HI 354 Study and Writing of History 3 crs.
Prq.: HI 353. Admission with consent of the department chairman and the instructor. The techniques of historical research and preparation of papers requiring such techniques. Analysis and evaluation of source materials will be stressed. Commonwealth Professor Melville.

HI 411 History of Russia 4.5 crs.
The early period as background of modern Russia. Emphasis on internal and foreign developments which resulted in the Soviet state. 3 periods weekly for one and one-half semesters. Professor Husek.

HI 413 Contemporary Affairs 3 crs.
National and international problems, using magazines, newspapers, telecasts, and recent books. Political, economic, social, and scientific developments. Professor Bates.

HI 419 Intellectual History of Modern Europe 4.5 crs.
From the Renaissance to the present. 3 periods weekly for one and one-half semesters. Associate Professor Rotstein.

HI 420 Directed Study in History 1-3 crs.
Supervised individual project in history. Intended primarily for students doing honors work in history. Open to other history majors with the permission of the chairman. Professor Fiore and Staff.

HI 421 History of Massachusetts 3 crs.
From the days of the Pilgrims and Puritans to the present. In the modern period emphasis is on social, economic, and constitutional history. Professor Fiore.

HI 425 Social and Intellectual History of the United States to 1914 4.5 crs.
The economic, social, and cultural development to the eve of the First World War, with emphasis on the transformation from an agricultural to an industrial society. 3 periods weekly for one and one-half semesters. Professor Fiore.

HI 430 Europe in the Middle Ages 3 crs.
From the fall of Rome to the Renaissance. Associate Professor Keay.

HI 432 Modern European Imperialism 3 crs.
Africa and Asia considered as contrasting phases of European expansion in the nineteenth and twentieth centuries. Associate Professor Doiron.

HI 433 Africa since 1800 3 crs.
The impact of Islamic and European cultures on the peoples of Africa; creation of colonial empires. Associate Professor Doiron.

HI 436 The Renaissance and the Reformation 3 crs.
Western Europe from the decline of feudal institutions to the emergencies of the modern state system, with emphasis on culture and intellectual affairs. Associate Professor Keay.

HI 437 Modern France 3 crs.
From the Revolution of 1789 to the present. Associate Professor Rotstein.

HI 441 American Negro History 3 crs.
From the colonial period through the present. Assistant Professor O'Connell.
HI 452 Senior Seminar in History 3 crs.
Prq.: Admission is subject to the consent of the departmental chairman and the instructor. Each senior will elect a seminar in United States, European, or Latin American history. The number of students in each one is limited. 2 periods weekly. Professor Fiore and Staff.

HI 455 Nationalism in Central and Southern Europe 2 crs.
The aspirations of subject peoples and present-day tensions; the nineteenth and twentieth centuries. 4 periods weekly for one quarter. Professor Husek.

HI 456 History of Brazil 2 crs.
4 periods weekly for one quarter. Professor Herrick.

HI 457 Historical Museum Management 2 crs.
4 periods weekly for one quarter. Visiting Lecturer.

HI 461 History of East Asia 4.5 crs.
Emphasis on China and Japan in the nineteenth and twentieth centuries. 3 periods weekly for one and one-half semesters. Professor Bates.

HI 481 United States Foreign Relations to 1900 3 crs.
From the American Revolution to 1900. Professor Bates.

HI 482 United States Foreign Relations since 1900 3 crs.
Professor Bates.

DEPARTMENT OF INSTRUCTIONAL MEDIA

Professor Henry Rosen, Chairman
Associate Professor Alan Lander.
Assistant Professor Thomas Lee.
Instructor Robert Ward.

The Instructional Media Department offers students the opportunity to become adept at and proficient in the use of the latest theory, techniques, and technology in education. The Department makes available extensive resources, references, and work areas for previewing, analysis, development, and presentation of materials.

A minor and a concentration in Instructional Media are now available. The minor consists of 18 hours, the concentration 9 hours, under the direction of the department chairman.

IM 310 Audiovisual Methods and Materials 3 crs.
Introduction to instructional media and technology incorporating selection, evaluation and utilization of instructional materials. Instruction in and application of still pictures, slides, filmstrips, recordings, radio, television, three-dimensional materials, field trips, flannel boards, chalk boards, and specialized teaching machines. Sources of teaching aids and supplementary materials accompanies laboratory procedures. Professor Rosen and Staff.

IM 311 Audiovisual Methods and Materials for Special Education 3 crs.
Same as IM 310 with guided research applicable to all areas of Special Education. Professor Rosen and Staff.
IM 412  Communication Theory  3 crs.
Prq.: IM 310.
Applies basic concepts of communications to problems of teaching and learning in today's schools. Modern techniques and applications will be thoroughly discussed. Mr. Ward.

IM 420  Advanced Audiovisual Technique  3 crs.
Directed study course. Development of a course of study in the student's field of concentration coordinated with instructional media and technology. Professor Rosen.

IM 424  Seminar in Instructional Media  Credits arranged.
Prq.: IM 420, IM 452 and IM 460.
Systematic review of literature and research, techniques, and technology in instructional media. Reports for group discussion and analysis. Professor Rosen.

IM 452  Science of Photography in Education  3 crs.
Prq.: IM 310 or IM 311 or consent of the instructor.
Basic philosophy, educational planning, and techniques of preparation of photographic instructional materials. Preparation of color and black and white slides, filmstrips, transparencies for overhead projection. Emphasis upon photography and darkroom techniques. Assistant Professor Ward.

IM 454  Script Writing Techniques for Radio and Television  3 crs.
Necessary approaches and techniques peculiar to the needs of radio and television. The student will write scripts for actual production in the studio. Staff.

IM 456  Radio and TV Studio Operation and Control  3 crs.
The student will learn all of the technical data necessary to direct TV programs and to operate a radio station, and be prepared to take the examination for either 1st, 2nd, or 3rd class license. Staff.

IM 457  Advanced Photography Techniques  3 crs.
Advanced theory of photography and the preparation of projected photographic materials; slides, stills, filmstrips, motion pictures, and overhead transparencies. Advanced techniques of darkroom usage and salon printing. Staff.

IM 458  Radio and TV Production  3 crs.
Designed to make the student proficient in the production of radio and TV programming, with stress upon being able to make, obtain, and set up necessary props, background, trick camera shots, and sound effects. Staff.

IM 460  Graphics for Instructional Media  3 crs.
Prq.: IM 452 or consent of instructor.
Instruction in graphic arts pertaining to new technology in education. Mechanical and hand lettering and lay-out. Preparation of materials by color-lift, thermofax, and tecnifax techniques. Basics for photocopying including 2" x 2" slides. Associate Professor Lander.

IM 464  Management of an Instructional Media Department  3 crs.
All phases of operating an Instructional Media Department; budgeting, purchasing, staffing, services, analysis of materials and equipment. Professor Rosen.

IM 466  Cinematography I  3 crs.
Prq.: IM 452.
IM 468 Advanced Cinematography 3-6 crs.
Prq.: IM 452 and IM 466.
Advanced techniques of film production in all of its technical phases, including production, design, editing, and sound synchronization for motion pictures in education. Not offered in 1973-1974.

DEPARTMENT OF LIBRARY SCIENCE

Associate Professor Beatrice Bouchard, Chairman
Assistant Professor Adeline Oakley.
Instructors: Olive Lee, Richard Neubauer.

The Department of Library Science offers library instruction to all students during their freshman year, to upperclassmen in elective courses and to students who wish to minor in Library Science. The requirements for Massachusetts School Librarian certification, effective May 1, 1963, are a bachelor's degree from a college approved by the Board of Education, including at least eighteen hours in Library Science education. Students taking Library Science as a minor concentration do one-half of their student teaching in a school library, (see ED 496).

Suggested electives for students in programs other than librarianship: LI 300 for classroom teachers and students aiming for a future in school administration; LI 310 for classroom teachers and students in Special Education and Reading; LI 320 for English majors planning to teach at the Secondary School level; LI 370 for students who wish to upgrade their research skills.

LI 102 Library Introduction 0 crs.
Freshmen are familiarized with the library during one quarter of their first academic year. One period a week is devoted to developing basic library skills. Required of all freshmen; 1 one-hour period during one quarter. Staff.

LI 300 Library Services in the School 3 crs.
The philosophy, functions, and evaluation of the library in the school for future teachers, administrators, and librarians. Correlation of the library with the modern curriculum, the use of print and non-print materials in the library, and the mutual cooperation of administration, faculty, and students. Mr. Neubauer.

LI 310 Children's Literature 3 crs.
Reading interests of children from pre-school years through the elementary grades with emphasis on the contribution that reading can make toward the process of growing up; criteria for evaluation and analysis of children's books; types of books available today, considered in terms of the needs, interests, and abilities of children. Topics covered are history of literature for children; illustrators; folk-tales; myths; modern fanciful tales; fiction; poetry; books in special fields, such as history, science, travel. Associate Professor Bouchard, Assistant Professor Oakley.

LI 320 Literature for Young Adults 3 crs.
Survey of literature for the adolescent, designed for junior and senior high school teachers and librarians, including a brief history of the development of this literature, evaluation of publishers, and psychology of the adolescent reader. Assistant Professor Oakley.
LI 370  Reference Materials and Their Use  3 crs.
Outlines of appropriate procedures in various disciplines. Bibliographic search assignments give practical application of techniques using all the resources of the library. Assistant Professor Oakley and Mr. Neubauer.

LI 380  Seminar on the Book  3 crs.
The development of the written word from the earliest alphabet to today’s computerized publishing, and the housing and dissemination of the book in relation to the world of learning. Mr. Neubauer.

LI 430  School Library Administration  3 crs.
Principles and practices in school library administration and service; the role of the library in the school’s educational program; pupil instruction in library use; the planning and equipping of the library; and other aspects of library organization. Associate Professor Bouchard, Mr. Neubauer.

LI 440  Organization of Library Materials (formerly Cataloguing and Classification)  3 crs.
Emphasis is on the Dewey Decimal classification and Sears Subject headings. Some time is given to the general processing of books. Associate Professor Bouchard.

LI 451  Storytelling  3 crs.
Examination of the literary sources, experience in selection and presentation of stories, and techniques in cultivating appreciation of literature in children from kindergarten through grade 8. Associate Professor Bouchard.

LI 452  Selection of Library Materials (Media Selection)  3 crs.
Criteria and policies in selection for reader interest and curriculum enrichment, with emphasis on practical applications and appraisal of bibliographic aids and current review practices. Assistant Professor Oakley.

LI 453  Film Study for Librarians  3 crs.
History, development, and screen conventions in the library program objectives of the school and community. Emphasis on acquiring analytic and evaluative skills and upon assessing emotional responses. Instructor to be announced.

LI 464  Use and Organization of Non-print Materials  3 crs.
Prq.: IM 310, LI 410, or permission of the instructor.
Survey of the standards and innovations in school media programs and exposure and proficiency in the use and organization of non-print materials currently used in libraries. Staff.
DEPARTMENT OF MATHEMATICS

Associate Professor Murray Abramson, Chairman
Associate Professors: Robert Bent, Joseph Chiccarelli, Hugo D’Alarcao, Robert Lemos, Henry Mailloux, Michael Makokian.
Assistant Professors: Walter Gleason, Frank Lambiase, Thomas Moore, Richard Quindley, I. Philip Scalisi, Donald Simpson, Robert Sutherland.

Since mathematics is both a cultural and technical field of study, the curriculum is planned with the following objectives: 1) to give the student an introduction to mathematics as an important area of human thought; 2) to give adequate preparation for students planning to teach mathematics on the secondary level; 3) to serve the needs of students in fields which rely on mathematics, e.g., experimental sciences, social sciences, and elementary education; 4) to give preparation to students for graduate study in mathematics and related fields.

Mathematics majors who are enrolled in the program leading to the bachelor’s degree, in addition to completing General Requirements, must satisfactorily complete the following courses: MA 101, 102, 201, 202, 301, 401, and six electives from MA 290, 302, 303, 304, 308, 316, 349, 402, 403, 406, 407, 408, 412, 415, 418.

A grade of C or above in MA 102 is required for continuation as a mathematics major. Majors must also successfully complete a one-year sequence of language study at the intermediate level, or its equivalent.

A math major beginning a new foreign language is required to take only six hours of that language.

A concentration in mathematics for students majoring in Elementary Education is comprised of three courses to be selected from MA 190, 322, 421, 422, 425, in addition to MA 107, 108 which are required of all Elementary Education majors.

Students who wish to minor in mathematics should consult with the Department Chairman to select a course of study compatible with the student’s interests and background.

MA 101, 102 Calculus with Analytic Geometry I-II 4 crs. for each semester.
Inequalities, functions and their graphs, the line and linear inequalities, limits and continuity, differentiation of algebraic functions and applications. The definite integral and applications, analytic geometry of the conic sections, the trigonometric and exponential functions, parametric equations and polar coordinates, calculus of vectors in a plane. Required of all freshman candidates for a degree in Mathematics, Physics, or Chemistry. Open to other qualified freshmen with consent of the Department Chairman. Associate Professor Abramson and Staff.

MA 103, 104 Mathematical Analysis I-II 3 crs. for each semester.
Sets, algebraic functions and their graphs, topics from algebra, trigonometric functions and analytic trigonometry, logarithmic and exponential functions, analytic geometry of the line and conic sections, differentiation and integration of algebraic functions and their applications. Required of all freshman candidates for a degree in Biology or Earth Science. Associate Professor Mailloux and Staff.
MA 105 College Mathematics I 
3 crs.
Set theory, elementary logic, modulo systems, introduction to groups and fields with emphasis on number systems, finite geometry. Required of all freshman non-science majors. Assistant Professor Quindley and Staff.

MA 106 College Mathematics II 
3 crs.
Prq.: MA 105.
Linear and quadratic equations, functions and their graphs, trigonometry, analytic geometry of the straight line and conic sections. Mathematics elective for non-science majors. Assistant Professor Lambiase and Staff.

MA 107, 108 College Mathematics for Elementary Majors I-II 
3 credits for each semester.
Theory of sets, relations and their properties, systems of numeration, axiomatic approach to the real number system through a study of the integers and rational numbers, elementary number theory, nonmetric and analytic geometry, groups, linear equations and inequalities, probability. Associate Professor Lemos and Staff.

MA 110 Elementary Statistics 
3 crs.
Variance, covariance, linear correlation, general regression lines, introduction to sampling theory; and the following distributions: normal, t, chi-square and F. Required of all freshmen who are candidates for a degree in Health and Physical Education. Assistant Professor Gleason and Staff.

MA 190 Computer Programming 
3 crs.
Prq.: MA 105 or permission of the department.
For non-science majors. The computer as a calculator, stored programs, encoding, solution of simple arithmetic and algebraic problems. Programming will be done in the FOCAL language or BASIC language on the PDP/8-I computer. Assistant Professor Sutherland.

MA 201 Calculus with Analytic Geometry III 
4 crs.
Prq.: MA 102.
Methods of integration and applications, solid analytic geometry, calculus of vectors in space, elements of infinite series, partial differentiation, multiple integration. Associate Professor Bent and Staff.

MA 202 Linear Algebra I 
4 crs.
Vectors and analytic geometry of space, vector spaces, systems of linear equations, determinants, applications to geometry and analysis. Associate Professor Bent and Staff.

MA 220 Introduction to Calculus 
3 crs.
Prq.: MA 106.
Functions and limits, derivatives and antiderivatives, the definite integral, differentiation of algebraic and transcendental functions, applications. Mathematics elective for non-science majors. Associate Professor Lemos.

MA 290 Computer Science I 
3 crs.
Prq.: MA 102 or MA 104 or permission of the department.
For science majors. Fixed and floating point formats, computer languages, flow-charting, encoding, elementary numerical analysis. Programming will be done in the FORTRAN language or BASIC language on the PDP/8-I computer. Assistant Professor Sutherland.

MA 301 Abstract Algebra 
3 crs.
Introduction to the theory of rings, integral domains and fields through a study of integers, rational numbers, real numbers, complex numbers and polynomials; elementary group theory. Assistant Professor Moore and Staff.
MA 302  Abstract Algebra II  
Prq.: MA 301. 
Group theory, linear groups, rings and ideals, extensions of rings and fields. Staff.

MA 303  Number Theory  
3 crs. 
Development of the number system, the Euclidean Algorithm and its consequences, theory of congruences, number-theoretic functions, Diophantine equations, quadratic residues. Assistant Professor Gleason.

MA 304  Higher Geometry  
3 crs. 
Axiomatic systems, finite geometries, introduction to synthetic and analytic projective geometry, affine geometry, non-Euclidean geometry. Associate Professor D'Alarcao.

MA 308  Linear Algebra II  
Prq.: MA 202. 
Linear transformations and matrices, bilinear and quadratic forms, polynomial rings, characteristic values and vectors of linear transformations, similarity of matrices, applications. Staff.

MA 316  Differential Equations  
Prq.: MA 201. 
Ordinary differential equations of first and second order, linear differential equations with constant coefficients, the Laplace transformation, applications. Assistant Professor Lambiase.

MA 322  College Algebra for Elementary Majors  
Prq.: MA 108. 
Elementary logic, the real and complex number systems, algebra of polynomials and algebraic fractions, exponents and radicals, inequalities, functions and their graphs, polynomial functions. Assistant Professor Simpson.

MA 349  Foundations of Mathematics  
3 crs. 
Elements of set theory and logic, development of the basic number systems, Peano postulates, development of the natural numbers, the integers and rational numbers, real numbers, and Cauchy sequences. Associate Professor Makokian.

MA 401  Advanced Calculus I  
Prq.: MA 201. 
Fundamental theorems on limits and continuity, properties of derivatives, functions of several variables, partial derivatives, multiple integrals. Assistant Professor Quindley.

MA 402  Advanced Calculus II  
Prq.: MA 401. 
Sequences, infinite series, power series and expansions of functions, vector calculus. Four periods weekly for one quarter. Assistant Professor Scalisi.

MA 403  Probability Theory  
Prq.: MA 201. 
Permutations and combinations, calculus of probabilities, discrete and continuous random variables, expectation, elementary probability distributions, moment-generating functions, sample spaces. Associate Professor Lemos.

MA 406  Theory of Sets and Elementary Logic  
Prq.: MA 201. 
Truth tables, rules of inference, method of proof, the algebra of sets and graphs of functions, cardinal numbers. Four periods weekly for one quarter. Associate Professor D'Alarcao.
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>MA 407</td>
<td>Topology</td>
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<td>The elements of point set topology, closed sets</td>
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<td>and open sets in metric spaces, continuous</td>
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<td>MA 408</td>
<td>History of Mathematics</td>
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<td>The development of elementary mathematics from</td>
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<td>MA 412</td>
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<td>MA 415</td>
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<td>Euler-Cauchy technique. Associate Professor</td>
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<td>MA 418</td>
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<td>MA 421</td>
<td>Analytic Geometry for Elementary Majors</td>
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<td>Assistant Professor Gleason.</td>
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<td>MA 422</td>
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DEPARTMENT OF MODERN FOREIGN LANGUAGES

Associate Professor Robert Arruda, Chairman
Associate Professors: Robert Briggs, Joseph Giannini, Wayne Judah.
Assistant Professors: Anthony Cotugno, Dale Dawley, Barbara Ward,
   Lenore Padula, Christiana Reordan, Mary Shapiro, Servando Tijerina.
Instructor: John Lucas.

The Modern Foreign Language Department offers students an opportunity to gain a practical working knowledge of one or more of six modern foreign languages. Students may choose any of these six languages offered by the department unless otherwise restricted by the requirements of their academic major. All students should check the specific foreign language requirement of their academic major.

The department currently offers a major in French with academic minors possible in French, German, Spanish, Italian, Russian, and Portuguese. The department majors seek to develop a fluent command of the four language skills, and a broad acquaintance with the salient characteristics of the literature and civilization of the language being studied.

A grade of C or above in the 181—182 course sequence is required for continuation as a language major. Normally, 30 semester hours are required for a foreign language major, following successful completion of the 181—182 course. Foreign language majors are required to take all courses in numerical sequence, unless otherwise arranged with the Department Chairman. Those who intend to enter secondary level teaching are required to take ED 324 (Methods and Materials in Secondary Education). Language minors are required to take 18 semester hours beginning with the 151-152 level course. The choice and sequence of subsequent courses may be determined by consultation with the Chairman of the Department. For all prerequisites, equivalent course credit or preparation will be accepted.

French

LF 101, 102 Elementary French 3 crs. for each semester.
An introduction to the essentials of written and spoken French. Four periods weekly. Staff.

LF 151, 152 Intermediate French 3 crs. for each semester.
Prq.: LF 102. Stress on essential grammatical points, oral work, and reading knowledge of the language. Staff.

LF 181, 182 Advanced French 3 crs. for each semester.
Prq.: LF 152. A concentration on more advanced aspects of the spoken and written French language. Oral practice through individual classroom participation. Staff.

LF 201 French Literature of the Middle Ages 3 crs.
Prq.: LF 182. A survey of representative works of the Middle Ages in modern French translation. Assistant Professor Padula.
LF 252  Sixteenth Century French Literature    3 crs.
Prq.: LF 201.
A study of the poetry, prose, and theatre of the sixteenth century, noting the transition from the late Middle Ages through the Renaissance. Assistant Professor Padula.

LF 281  French Conversation and Civilization    3 crs.
Prq.: LF 182.
Improvement of oral expression and pronunciation. French Civilization discussion topics for vocabulary building and application of structures learned. Assistant Professor Dawley.

LF 301  Seventeenth Century French Literature    3 crs.
Prq.: LF 252.
The principal historical events and representative authors and genres of France of the seventeenth century will be studied with the object of understanding Classicism as a literary movement. Associate Professor Judah.

LF 352  Eighteenth Century French Literature    3 crs.
Prq.: LF 301.
The literary contributions of the Enlightenment and Encyclopedists to the French Revolution and pre-Romanticism. Associate Professor Giannini.

LF 381  Applied French Linguistics and Phonetics    3 crs.
Prq.: LF 182.
A linguistic approach to the sounds of the French language with emphasis on a mastery of the elements of correct standard pronunciation. Conducted in French. Assistant Professor Dawley.

LF 382  Advanced French Composition and Grammar    3 crs.
(Formerly LF 481)
Prq.: LF 381.
A thorough study of French grammar to develop written and oral proficiency in the French language. Assistant Professor Dawley.

LF 401  Nineteenth Century French Literature    4.5 crs.
Prq.: LF 352.
Through representative works, the entire nineteenth century will be surveyed with special emphasis on principal literary movements: Romanticism, Realism, and Symbolism. Three periods weekly for three quarters. Associate Professor Judah.

LF 451  Twentieth Century French Literature    4.5 crs.
Prq.: LF 352.
A discussion of literary trends and reading of well-known authors. Individual reports. Barres, France, Gide, Proust, Claudel, Romains, Sartre, Camus. Three periods weekly for three quarters. Associate Professor Giannini.

German

LG 101, 102  Elementary German    3 crs. for each semester.
An introduction to the study of the German language. Emphasis on correct pronunciation and basic grammar. Four periods weekly. Staff.

LG 151, 152  Intermediate German    3 crs. for each semester.
Prq.: LG 102.
A systematic review of basic German grammar. Graded reading selections and an introduction to aspects of German culture. Staff.
LG 181, 182 Advanced German 3 crs. for each semester.
Prq.: LG 152.
Introduction to a more advanced level of the literature. Representative authors will be read and discussed. Associate Professor Briggs.

LG 191, 192 Scientific German 3 crs. for each semester.
Prq.: LG 102.
An introduction to the reading and translating of scientific material. Open to science majors as a substitution for LG 151, 152. Assistant Professor Ward.

LG 201, 202 Survey of German Literature 3 crs. for each semester.
Prq.: LG 182.
German literature from its earliest beginnings to the present day. Representative works of the principal literary periods will be read and discussed. Assistant Professor Ward.

LG 282 German Conversation and Civilization 3 crs.
Prq.: LG 182.
Designed to develop further the student's command of spoken German. Discussion topics will center upon aspects of German civilization and culture. (Not offered in 1973-1974.)

LG 301, 302 Modern German Literature 3 crs. for each semester.
Prq.: LG 202.
Ideas and literary currents of the modern period as expressed in the works of representative authors. (Not offered in 1973-1974.)

LG 351 German Romanticism 3 crs.
Prq.: LG 202.
Romanticism as a literary movement. A study of its philosophical basis, themes and forms as reflected in representative works of the period. (Not offered in 1973-1974.)

LG 382 Medieval German Literature 3 crs.
Prq.: LG 202.
Reading and discussion of the principal works of the medieval period, with particular emphasis upon the Middle High German authors and their works. (Not offered in 1973-1974.)

LG 401 The Age of Goethe and Schiller 4.5 crs.
Prq.: LG 202.
The Storm and Stress Period and Classical Period of German literature with a focus upon Goethe and Schiller as the leading representatives of these movements. Three periods weekly for three quarters. (Not offered in 1973-1974.)

LG 451 German Drama, Prose, and Poetry of the Nineteenth Century 4.5 crs.
Prq.: LG 202.
Representative writers of the century will be read and discussed with emphasis upon the interrelationships of Romanticism, Realism and Naturalism as literary movements in 19th century German literature. Three periods weekly for three quarters. (Not offered in 1973-1974.)

Italian

LT 101, 102 Elementary Italian 3 crs. for each semester.
An aural-oral approach to the grammar of the Italian language. Emphasis is on the mastery of correct pronunciation and of fundamental grammatical points to ensure a basic oral, reading, and written command of the language. Four periods weekly. Assistant Professor Padula.
DEPARTMENT OF MODERN FOREIGN LANGUAGES

LT 151, 152  Intermediate Italian  3 crs. for each semester.
Prq.: LT 102.
A continuation of Elementary Italian, with stress on essential grammatical features, oral work, and reading and writing development in the language. Assistant Professor Padula.

LT 181, 182  Advanced Italian  3 crs. for each semester.
Prq.: LT 152.
A review of basic grammar and presentation of more advanced structural elements. Stress on improvement of compositional and aural-oral skills. Varied cultural reading selections. Assistant Professor Padula.

Portuguese

LP 101, 102  Elementary Portuguese  3 crs. for each semester.
An introduction to the basic skills of reading and writing, and the development of aural comprehension and correct oral pronunciation. Four periods weekly. (Not offered in 1973-1974.)

LP 151, 152  Intermediate Portuguese  3 crs. for each semester.
Prq.: LP 102.
A review of basic grammar and pronunciation and a more advanced study of these two aspects of the language. Reading, writing, and oral proficiency will be stressed. (Not offered in 1973-1974.)

LP 181, 182  Advanced Portuguese  3 crs. for each semester.
Prq.: LP 152.
Stress on improvement of compositional and aural-oral skills. Literary texts from Brazilian and Portuguese literature. (Not offered in 1973-1974.)

Russian

LR 101, 102  Elementary Russian  3 crs. for each semester.
Simultaneous development of the four fundamental language skills. Classwork supplemented by laboratory drills. Four periods weekly. Assistant Professor Reordan.

LR 151, 152  Intermediate Russian  3 crs. for each semester.
Prq.: LR 102.
Consolidation of elementary Russian through review of basic elements, plus written and oral self-expression based on detailed readings of selected texts. Assistant Professor Reordan.

LR 181, 182  Advanced Russian  3 crs. for each semester.
Prq.: LR 152.
Progressive development of the student’s language proficiency through reading of scientific and literary texts, oral practice, and written compositions. Assistant Professor Reordan.

Spanish

LS 101, 102  Elementary Spanish  3 crs. for each semester.
An introduction to the essentials of Spanish pronunciation and grammar. Reading, writing, aural and oral proficiency will be stressed. Four periods weekly. Staff.

LS 151, 152  Intermediate Spanish  3 crs. for each semester.
Prq.: LS 102.
A review of basic grammar and correct pronunciation to further an aural-oral command of the language. Hispanic readings will be introduced. Staff.
LS 181, 182  Advanced Spanish  3 crs. for each semester.
Prq.: LS 152.
A more detailed study of Spanish grammar. Vocabulary development, correct pronunciation, and improved aural-oral skills. Readings from Hispanic world. Assistant Professor Cotugno.

LS 201, 202  Survey of Spanish Literature  3 crs. for each semester.
Prq.: LS 182.
Major literary movements, works and authors of peninsular Spanish literature from earliest times to the present. Offered in alternating years with LS 251, 252. Staff

LS 251, 252  Survey of Spanish-American Literature  3 crs. for each semester.
Prq.: LS 182.
A representative study of the literature of the Colonial period, the Independence period, the eighteenth century, Modernism, and the contemporary period. Offered in alternate years with LS 201, 202. (Not offered in 1973-1974.)

LS 281  Advanced Composition  3 crs.
Prq.: LS 182.
Development of individual written expression. Utilization of literary texts as an approach to composition by focusing on vocabulary, analysis of style and context. Mr. Lucas.

LS 282  Spanish Phonetics and Conversation  3 crs.
Prq.: LS 281.
Improvement of oral proficiency by a systematic study of the sounds of correct pronunciation. Mr. Lucas.

LS 292  Spanish Civilization  3 crs.
Prq.: LS 182.
An introduction to the history, geography, social institutions, and culture of Spain. Assigned compositions. Staff.

LS 301  The Golden Age of Spanish Literature  3 crs.
A study of the poetry, prose and theatre from the second half of the sixteenth century to the Baroque period. Emphasis will be on the mystics. Góngora, Lope de Vega, Calderón, and Quevedo. Staff.

LS 351  Cervantes  3 crs.
A study of the man and his works, with special emphasis on Don Quixote. Assistant Professor Tijerina.

LS 381, 382  The Middle Ages  3 crs.
A study of the evolution of Spanish literature through the first half of the sixteenth Century. Romances, Poema del Cid, La Celestina, El Libro de Buen Amor. Assistant Professor Tijerina.

LS 401  Nineteenth Century Spanish Literature  4.5 crs.
**DEPARTMENT OF MUSIC**

Professor Kenneth Falkner, *Chairman*
Associate Professors: Dorothy Ferry, Vincent Gannon.
Assistant Professors: Ian Johnstone, Jacob Librelus.
Instructors: David Rinald, Henry Santos.

The Music Department offers a minor and a concentration in music for the liberal arts and elementary education majors, courses for the humanities elective requirement, private instruction in piano and voice, and performing organizations for the student who wishes to take a more active part in music.

Liberal arts majors who elect music as a minor are required to complete 18 semester hours in music which include 6 in applied voice or piano, MU 171, 172, 160 or 360, and one course from MU 363, 364, 365 or 366. Elementary Education majors who elect music as a concentration are required to complete the following 12 semester hours MU 140, 240, 251, and 255. Those who wish to minor in music should add MU 330 and 360 to the concentration requirements.

Students must notify and receive approval from the department chairman for acceptance into the music program. A grade of C or better is required in all music course work as well as membership in one performing organization.

* **MU 111 College Band**
Prq.: Consent of the instructor.
Open to all interested and qualified students who wish to continue their experience in band music. Emphasis placed on contemporary works and music especially written for band. Concerts scheduled on campus and exchange concerts with other college bands. Three periods weekly. Not offered in 1972-1973.

* **MU 113 Stage Band**
Prq.: Consent of the instructor.
A performing group limited to twenty students in a laboratory experience which stresses basic musicianship, analysis of form and style, ensemble playing, and improvisation. One three-hour period weekly. Associate Professor Gannon.

* From the above one-credit co-curricular activities, MU 111, 113, 115, 117, 118 and 119, and from any and all co-curricular activities in which a student might wish to participate and for which the College grants or may decide to grant credit in the future, a student may accumulate not more than one (1) credit per semester, nor more than two (2) per year, nor more than six (6) per college career.
*MU 115 Instrumental Ensemble
Prq.: Consent of the instructor.
A mixed group of instruments which performs music originally written for that particular combination of instruments. Ensembles formed as the occasion demands. One three-hour period weekly. Staff.

*MU 117 Women's Glee Club
Open to all female students who like to sing. Performances are given during the year which include traditional and folk songs, arrangements from musical comedies and music that is currently popular. Three periods weekly. Mr. Santos.

*MU 118 Chorale
Prq.: Consent of the instructor.
A selected group of mixed voices which performs works representative of many periods of music and presents concerts throughout the academic year, at times with other college groups on and off campus. Three periods weekly. Mr. Rinald.

*MU 119 Vocal Ensemble
Prq.: Consent of the instructor.
A mixed group of voices which is organized to perform a particular type of music. Ensemble formed as the occasion demands. Three periods weekly. Staff.

MU 131 Applied Voice
Prq.: Consent of the instructor.
Private lessons in voice for the beginning student and those with a limited background in singing. Basic concepts in posture, breathing, diction and vocalises stressed. Solo material selected from vocal literature in English with an introduction to literature in a foreign language. One or two half-hour periods weekly. Mr. Rinald.

MU 140 Class Piano I
3 crs.
For beginning piano students who desire a fundamental approach to the keyboard. Required of elementary education majors who have elected music as a concentration or a minor. Includes correct use of the hands at the keyboard, playing of simple scales and chords, arpeggios and simple melodies; scale construction and use of I, IV and V chords. Mr. Santos.

MU 141 Applied Piano
Credits arranged.
Private instruction for the beginning piano student and those with a limited background in piano. Material selected according to the ability of the student. May be repeated for credit. One or two half-hour periods weekly. Mr. Santos.

MU 150 Essentials of Music
3 crs.
Required of all Elementary and Special Education majors but not those who have elected music as a concentration or minor. A non-technical approach to the use of music in the elementary school which serves to enhance the student's knowledge and ability to use music in the classroom. Staff.

MU 160 Music Literature
3 crs.
A non-technical humanities elective which explores music from the Baroque through contemporary periods with emphasis on how to listen to music intelligently. Selected works by the masters include symphonies, concertos, oratorios, operas, and smaller works which are used for study, listening and discussion. Staff.
MU 171, 172  Harmony I-II  
3 crs. for each semester.
A beginning technical course in the study of 18th and 19th century theory of music for students who wish a foundation for further development of their musical awareness. Includes rudimentary fundamentals of music theory, harmonic structure of chords of the sixth through secondary dominants, and simple modulations. MU 171 is prerequisite to MU 172. Associate Professor Gannon.

MU 240  Class Piano II  
3 crs.
Prq.: MU 140 or consent of the instructor.
A continuation of MU 140 with advanced keyboard work and more difficult melodies and rhythmic patterns. Use of II, III and VI chords, simple modulations, and keyboard harmony. Mr. Santos.

MU 251  Choral Techniques  
3 crs.
Prq.: MU 240 or consent of the instructor.
A required course for Elementary Education majors who have elected music as a concentration or minor and open to other students with permission of instructor. Investigation and study of problems in choral singing, the voice, rehearsal and conducting technique, elementary and advanced choral literature. Melodic, rhythmic, polyphonic dictation is included. Mr. Rinald.

MU 255  Music Materials for Elementary Teachers  
3 crs.
MU 240 and consent of the instructor.
For those who wish to become more actively involved with music in the classroom. Includes singing, use of instruments, listening, reading music, and rhythmic activity. Associate Professor Ferry.

MU 330  Voice Class  
3 crs.
Prq.: MU 251 or consent of the instructor.
Correct posture, breathing and control are studied as well as ways of correcting individual voice problems, repertoire, solfeggio, and advanced dictation. Mr. Rinald.

MU 331  Applied Voice  
3 crs.
Private lessons in voice for those who have satisfied the requirements of MU 131. A continuation of vocalises, breath and tone control, solo material selected from the literature of German, French, and Italian composers as well as contemporary works in English. Mr. Rinald.

MU 341  Applied Piano  
Credits arranged.
Prq.: MU 141 and consent of the instructor.
For the advanced student of piano who wishes to improve his ability at the keyboard. Material selected according to the ability of the student. One or two half-hour periods weekly. Mr. Santos.

MU 355  Creative Activities in Elementary School Music  
3 crs.
Prq.: MU 240, MU 255, or consent of the instructor.
Practical experience offered in free and directed rhythmic responses, use of melody, percussion and chording instruments, use of the piano, and singing activities. Associate Professor Ferry.

MU 360  Music Literature II  
3 crs.
Prq.: MU 172 or consent of the instructor.
An advanced course in the development of music with a study of style, form and structure through analysis, listening, and discussion. (Not offered in 1973-1974.)

MU 363  Music of the Renaissance and Baroque Periods  
3 crs.
Prq.: MU 160 or consent of the instructor.
A study of vocal and instrumental, sacred and secular music through readings, lectures and discussion of selected compositions representative of these two periods. Assistant Professor Liberies.
MU 364  Music of the Classical and Romantic Periods  3 crs.
Prq.: MU 160 or consent of the instructor.
A study of vocal and instrumental music of these two periods through readings, lecture, listening and discussion. Professor Falkner.

MU 365  Music of the Contemporary Period  3 crs.
Prq.: MU 160 or consent of the instructor.
A study of present day music and its relationship to the past; includes experimental and electronic developments; readings, lecture, listening and discussion. (Not offered in 1973-1974.)

MU 366  Music of the Opera  3 crs.
Prq.: MU 160 or consent of the instructor.
A listener's approach to opera with representative examples from Peri to present day composers. Works by composers from Germany, France and Italy will be studied along with contributions from England and America. (Not offered in 1973-1974.)

MU 370  Music Skills  3 crs.
For the elementary teacher or undergraduate student who wishes a knowledge of the basic fundamentals of music to use as a basis for further study. Includes scales, chords, singing, playing simple instruments, and rudimentary harmonic progressions. (Not offered in 1973-1974.)

DEPARTMENT OF PHILOSOPHY

Assistant Professor David Cheney, Chairman
Associate Professors: Joseph Corkery, Achille Joyal.
Assistant Professor Steven Sanders.

The Department offers a variety of courses in the history and problems of philosophy, and a minor (18 credits) in philosophy can be achieved. A student interested in pursuing a course of philosophic studies should contact the chairman in order to discuss an individual program relevant to his academic major.

PL 200  Scepticism, Knowledge, and Reality  3 crs.
An introduction to philosophy through an examination of the relationship between the knower and the known, including topics of perception, doubt, belief, the external world and religious knowledge. Associate Professor Corkery.

PL 210  Human Conduct and Values  3 crs.
An introduction to philosophy through an examination of representative systems of value and moral propriety, including topics of freedom, the nature of moral obligation and moral judgments, and the concepts of good, right, value, and moral worth. Associate Professor Joyal and Assistant Professor Sanders.

PL 220  Philosophy of Mind and Action  3 crs.
An introduction to philosophy through an examination of various conceptions of man, including topics of mind, persons, action, intention, and will. Associate Professor Corkery.

PL 230  Social and Political Man  3 crs.
An introduction to philosophy through an examination of man as a social being, including topics of political obligation, justice, communication, law, social contract, liberty, sovereignty, and civil disobedience. Assistant Professor Cheney.
PL 310 Logic
An introduction to formal logic and analysis; study of propositions and syllogisms; introduction to symbolic logic; selected problems in the philosophy of logic and language. To be announced.

PL 321 Contemporary Moral Philosophy
Prq.: 3 semester hours in philosophy.
A critical study of selected problems, including the logic of moral discourse, description and evaluation, egoism and altruism, obligation and motivation, moral reasoning and moral practices, in view of contemporary formulations and solutions. Assistant Professor Sanders.

PL 323 Philosophy of Religion
Prq.: 3 semester hours in philosophy.
A logical and conceptual analysis of religious discourse with emphasis on the concepts of God, guilt, miracle, evil, and religious experience; combined with an examination of the nature and justification of religious claims and the relation between faith and reason. Staff.

PL 324 Theory of Knowledge
Prq.: 3 semesters in philosophy.
An exploration of problems concerning knowledge in light of contemporary solutions including the analytical clarification of the main epistemic concepts, such as knowledge, belief, certainty, evidence and justification. Assistant Professor Sanders.

PL 381 Ancient and Medieval Philosophy
A study of the major philosophers of these periods, including the Pre-Socratics, Socrates, Plato, Aristotle, Augustine, Anselm, and Aquinas. Associate Professor Joyal.

PL 382 Rationalism, Empiricism and Kant
A study of the Rationalists, including Descartes, Spinoza, and Leibniz, and the Empiricists, including Hobbes, Locke, Berkeley, and Hume, especially in regard to the nature of ideas, the use of reason, and the scope and limits of knowledge; concluding in an examination of Kant's attempt to resolve the conflicts between these two movements. Assistant Professor Sanders.

PL 385 Nineteenth Century Philosophy
A study of the main movements of this period, including Idealism, Positivism, Dialectical Materialism and the early existentialist revolt, with special emphasis on the works of Hegel, Schopenhauer, Royce, Mill, Marx, Kierkegaard, and Nietzsche. Assistant Professor Cheney.

PL 386 Contemporary Philosophy
A study of the main movements of this period, including Pragmatism, Analytic Philosophy, and Existential Phenomenology, with special emphasis on the work of Whitehead, Dewey, James, Wittgenstein, Russell, Moore, Sartre, Husserl, and Heidegger. Assistant Professor Sanders.

PL 401 Philosophy of Natural Science
Inquiry into the conceptual foundations of natural science, including topics of induction, causation and determinism, natural law, theoretical explanation, and concept formation. Instructor to be announced.

PL 403 Philosophy and the Arts
Inquiry into recurrent philosophical themes in literature and the fine arts, accompanied by an introduction to the fundamental problems of esthetics. Assistant Professor Cheney.

PL 410 Existentialism
A critical study of the concepts of human existence, anxiety, freedom, decision; introduction to phenomenology; readings from Kierkegaard, Heidegger, Jaspers, Sartre, Camus. Assistant Professor Cheney.
PL 450 Philosophy Seminar  3 crs.
Study of a particular philosopher and/or selected philosophical problems. Topics vary; course may be repeated. Limited enrollment, admission only by consent of instructor. Staff.

PL 460 Directed Studies  Credits arranged
Prq.: six semester hours in philosophy.
Independent study under the direction of individual members of the department. Open to seniors who have completed at least two courses in philosophy. Staff.

DEPARTMENT OF PHYSICS

Professor Richard Calusdian, Chairman
Professors: Felix Palubinskas, George Weygand.
Associate Professors: Raymond Blanchard, Erwin Harris.

The Physics Department offers a program leading to the bachelor's degree in Physics. This program prepares the student for graduate school, for a career in industry or government, or for the teaching of physics in high school. If a student minors in education he will meet the Massachusetts State Certification requirements for teaching physics. One three-credit mathematics course as an elective will also allow the student to meet the Massachusetts State Certification requirements for teaching Mathematics.

The following physics courses are required for a major in Physics: PH 243, 244, 385, 387, 388, 389, 403 or their equivalents.

The following courses outside the department are also required for a major in Physics: CH 141, 142; MA 101, 102, 201, 316 or their equivalents. Majors must also successfully complete a one-year sequence of language study at the intermediate level, or its equivalent.

A student may minor in physics by successfully completing 18 semester hours credit of physics acceptable for the major.

PH 181 Elements of Physics I  3 crs.
Principles of mechanics, heat and sound. Two lecture periods and one two-hour laboratory period weekly. Professor Weygand.

PH 182 Elements of Physics II  3 crs.
Prq.: PH 181.
Principles of electricity, magnetism, optics and modern physics. Two lecture periods and one two-hour laboratory weekly. Professor Weygand.

PH 200 Survey of Physics  3 crs.
Elements of mechanics, heat, electricity, magnetism, optics and modern physics. Two lecture periods and one two-hour laboratory weekly. Professor Weygand.

PH 243 General Physics I  4 crs.
Prq.: MA 102.
Calculus based study of mechanics and heat. Three lecture periods and one three-hour laboratory weekly. Associate Professor Blanchard.
PH 244 General Physics II 4 crs.
Prq.: PH 243.
Calculus based study of electricity, magnetism, and light. Three lecture periods and one three-hour laboratory weekly. Associate Professor Blanchard.

PH 371 Biophysics, Macroscopic Aspects 3 crs.
Prq.: Consent of the instructor.
The structure, function, and control of the skeletal, muscular, nervous, blood-vascular and other body systems of the human being on the macroscopic or large-system level. Three lecture periods. Professor Palubinskas.

PH 372 Biophysics, Microscopic Aspects 3 crs.
Prq.: Consent of the instructor.
The structure, function, and control of the human body on the microscopic or molecular level. May be taken independently of PH 371. Professor Palubinskas.

PH 381 Thermal Physics 3 crs.
Prq.: PH 243, PH 244.
Thermodynamics; kinetic theory; and statistical mechanics. Professor Palubinskas.

PH 385 Optics 3 crs.
Prq.: PH 244.
Study of geometrical and physical optics. Three lecture periods weekly. Professor Harris.

PH 387 Modern Physics 3 crs.
Prq.: PH 243, PH 244.
Theory of relativity; atomic structure; quantum theory; nuclear physics and elementary particles. Professor Calusdian.

PH 388 Electricity and Magnetism 4 crs.
Prq.: PH 244.
The theory and applications of the fundamental equations of electromagnetism. Three lecture periods and one three-hour laboratory weekly. Professor Palubinskas.

PH 389 Mechanics 3 crs.
Prq.: PH 243.
Vector treatment of forces, torques; dynamics of particles and rigid bodies; work and energy; momentum; small oscillation theory; Lagrangian and Hamiltonian formulation of dynamics. Associate Professor Blanchard.

PH 390 Research Problems in Physics Credits arranged.
Special projects for advanced students desiring individual instruction in the methods of physics research. Hours arranged. Professor Calusdian and Staff.

PH 391 Solid State Physics 3 crs.
Prq.: PH 387.
Crystal structure; electric, magnetic and thermal properties of matter; transport properties; band theory; super conductivity. Professor Calusdian.

PH 392 Electronics 4 crs.
Prq.: PH 244.
Study of electron tubes, semiconductors, and electronic circuits. Three lecture periods and one three-hour laboratory period weekly. Professor Palubinskas.
PH 393 Special Topics in Modern Physics 3 crs.
Prq.: PH 387
Topics to be chosen from among the areas of the theory of relativity, Quantum mechanics, Solid State and Nuclear Physics. Professor Calusdian.

PH 395 History of Science 3 crs.
The development of scientific thought and scientific method from the Ionian Greeks to the contemporary era. Professor Weygand.

PH 398 Directed Study in Theoretical Physics
The student may choose from among the following topics: theory of relativity; quantum theory; electromagnetic theory; statistical mechanics; classical mechanics and mathematical physics. Hours arranged. Professor Calusdian and Staff.

PH 399 Directed Study in Experimental Physics
Introduction to advanced experimental techniques of physics. Associate Professor Harris and Staff.

PH 402 Quantum Mechanics 3 crs.
Prq.: PH 403.
Wave nature of matter; the Schrödinger equation; application of the Schrödinger equation to the electron, the hydrogen atom, multi-electron atoms and radiation. Professor Calusdian.

PH 403 Mathematical Physics 3 crs.
Prq.: PH 243, PH 244, MA 103.
Vector analysis; matrices; linear differential equations; Sturm-Liouville theory; Fourier series; orthogonal functions; Laplace transform. Professor Calusdian.

PH 405 Nuclear Physics 3 crs.
Prq.: PH 387.
Nuclear forces, nuclear models, nuclear reactions and radioactivity, and elementary particles. Associate Professor Harris.
DEPARTMENT OF POLITICAL SCIENCE

Professor Robert N. Larson, Chairman
Assistant Professor Guy Clifford

The program of study for Political Science majors is designed to give students an understanding of the political and governmental structure in their own country and in other parts of the world, and to develop their interest in contemporary public affairs and governmental problems. The Political Science major aims to provide a foundation for the study of law, for graduate work in Political Science or Public Administration with a view toward teaching or government service, and for work in international relations.

Two sequences of courses are available. Students majoring in Political Science will take PO 272 and PO 377 in their Sophomore year, and at least 24 additional credits in advanced Political Science courses in their Junior and Senior years.

Majors must also successfully complete a one-year sequence of language study at the intermediate level, or its equivalent.

Students who plan to be teachers and who wish a concentration in Political Science and History will take another sequence of courses. Students in this program will take PO 271 and PO 272 in their Sophomore year, PO 471 in their Senior year, and at least 15 additional credits in advanced Political Science courses in their Junior and Senior years.

PO 271 Western Political Thought—Plato to the Present 3 crs.
Development of political ideas from ancient times to the modern era. Assistant Professor Clifford.

The constitutional authority, organization, activities, and political processes of the national government. Assistant Professor Clifford.

PO 273 U. S. and Massachusetts Constitutions 1 cr.
Structure of government and rights and responsibilities according to Federal and Commonwealth constitutions. Professor Larson.

PO 371 Comparative Government 3 crs.
Prq.: PO 271 or PO 272.
Political behavior and governmental systems in Great Britain, France, West Germany and the Soviet Union. Staff.

PO 372 Legislative Process and Procedure 3 crs.
Prq.: PO 272, PO 377.
The role of legislatures in modern American government, federal and state; the relationship of the voter and of apportionment to law-making; the two-party system and its impact on the law-making process; the committee system and seniority, and constitutional limitations on legislatures. Professor Larson.
### PO 373 Political Theory — Ancient and Medieval

**Prq.:** PO 272.

Western political thought from Plato to Sir Thomas More. Emphasis upon the basic concepts and persistent questions of political theory and their relevance to contemporary problems through systematic analysis of major works. **Assistant Professor Clifford.**

**3 crs.**

### PO 374 Political Thought: Modern and Contemporary

The ideas of major political thinkers in the era of the modern nation-state. **Assistant Professor Clifford.**

**3 crs.**

### PO 375 Political Parties

**Prq.:** PO 272, PO 377.

The historical development of the American party system, and contemporary aspects of its functioning, at the national, state, and local level. **Assistant Professor Clifford.**

**3 crs.**

### PO 376 Municipal Government

**Prq.:** PO 272, PO 377.

Intensive study of selected problems of structure, organization, and powers of local government; intergovernmental relationships; administrative and personnel management; special emphasis on local government in Massachusetts. **Professor Larson.**

**3 crs.**

### PO 377 American Government: State and Local Government

**Prq.:** PO 272.

Government and politics with emphasis on Massachusetts affairs. **Assistant Professor Clifford.**

**3 crs.**

### PO 379 Introduction to Public Administration

**Prq.:** PO 272, PO 377.

The relationship of the administrative branch of government to other branches in the making and implementation of public policy; theories of government organization for efficient administration; problems of budgeting, personnel, merit systems, types of agency organization, popular control over the bureaucracy. **Professor Larson.**

**3 crs.**

### PO 471 International Relations

**Prq.:** PO 272, PO 377.

The patterns of inter-state relations, the development of international law, international organizations, and the factors motivating the behavior of nations. Three periods weekly for one and one-half semesters. **Professor Larson.**

**4.5 crs.**

### PO 472 American Constitutional Development

**Prq.:** PO 272, PO 374, PO 377.

Principles and concepts of the U.S. Constitution, as revealed in leading court decisions. Judicial review, federalism, separation of powers, implied powers, due process of law, equal protection, the contract clause, etc. **Professor Larson.**

**3 crs.**

### PO 473 International Law and Organization

**Prq.:** PO 272, PO 371, PO 377.

The evolution of international law and organization from early beginnings to the United Nations system; the principles of international law and organization, their integration, and the effect of international politics thereon; the theoretical and practical aspects of the international legal process; the structure, functions, and procedures of the United Nations, etc. **Professor Larson.**

**3 crs.**

### PO 475 Senior Seminar in Political Science

**Prq.:** Admission is subject to the consent of the departmental chairman and the instructor.

The undertaking of independent study, and a research project presented in oral and written form. **Staff.**

**3 crs.**
PO 480 Directed Study in Political Science 3 crs.
Prq.: Admission is subject to the consent of the departmental chairman and the instructor. The undertaking of independent study, and a research project presented in written form. This course is designed for those students who may desire to do additional research beyond that permitted by the Senior Seminar (PO 475). With the permission of the department it may be substituted for another course at the senior level. Staff.

DEPARTMENT OF PSYCHOLOGY

Professor Morgan C. Brown, Acting Chairman
Professor Sherman Eisenthal.
Associate Professors: Herbert Greenwald, Elizabeth Hollis, James Scroggs,
Louis Schippers.
Assistant Professor Drake Chisholm
Instructor Chester Lupton.

Required for a major in Psychology: 30 semester hours in Psychology, to include PY 200, PY 222, either PY 224, or PY 226; PY 230, PY 231 (PY 223 optional but essential for students entering graduate work).

Other required courses: MA 110; BI 101, 102. Majors must also successfully complete a one-year sequence of language study at the intermediate level, or its equivalent.

PY 200 General Psychology 3 crs.
Basic psychological processes such as perceiving, learning, thinking, emotion, and motivation, as well as more complex areas such as personality, adjustment, and social influences on behavior; major conclusions and basic methods of study in the field. Staff.

PY 210 Applied Social Psychology 3 crs.
Prq.: PY 200.
Effective communication and better understanding of oneself; listening, persuasion, conflict resolution, goals, expectations, and self-confidence. Contemporary problems such as dissent, minority problems. Guest speaker when possible. Associate Professor Greenwald.

PY 222 Psychology of Learning 3 crs.
Prq.: PY 200.
An examination of the theoretical and research aspects of the learning process. Theories of learning will be examined in relation to experimental design and the learning situation. Associate Professor Schippers.

PY 223 Laboratory in Experimental Psychology 3 crs.
Prq.: PY 200, PY 222.
Practical experience in laboratory approach to the study of behavior with considerable freedom for student to design his own experiments. Mainly oriented toward issues in learning and motivation: classical and operant conditioning, generalization and discrimination, extinction and transfer, goal-approach and -avoidance, effect of drive on performance. Assistant Professor Drake Chisholm.
DEPARTMENT OF PSYCHOLOGY

PY 224  Child Growth and Development  3 crs.
Prq.: PY 200.
Growth and development of the child from birth to pre-adolescence. Biological, psychological, and social factors as well as moral forces which influence child behavior. Associate Professor Hollis.

PY 226  Adolescent Psychology  3 crs.
Prq.: PY 200.
The major theories related to pre-adolescent and adolescent development. Physical, mental, moral, emotional, personality, and social aspects will be considered. Associate Professor Schippers.

PY 228  Psychology of Mental Retardation  3 crs.
Prq.: PY 200.
Origins (genetic; organic; sensory, maternal, and cultural deprivation), manifestations, diagnostic aids, therapeutic and remedial techniques. Associate Professor Scroggs.

PY 230  Social Psychology  3 crs.
Prq.: PY 200.
The individual in social situations: attitude formation and change, culture and society, language and communication, leadership and group dynamics, personality characteristics and interpersonal relationships, small group behavior. Associate Professor Greenwald and Staff.

PY 231  Psychology of Personality  3 crs.
Prq.: PY 200.
Basic concepts in the field of personality, organized around such topics as motivation, personality structure and dynamics, personality development, assessment, and therapy. Problems and styles of adjustment will be considered. Associate Professor Scroggs and Staff.

PY 300  Abnormal Psychology  3 crs.
Prq.: PY 200 and 231.
A systematic study of behavior pathology. Symptom patterns, etiology, prognosis, and prevention. Understanding and care of mental illness. Associate Professor Scroggs and Staff.

PY 304  Attitude and Personality Measurement  3 crs.
Prq.: PY 231, or PY 315, and MA 110.
Principles of construction of attitude scales and personality assessment techniques, including both projective and inventory-type techniques. Issues and controversies in psychological measurement. Associate Professor Greenwald.

PY 306  Experimental Psychology  3 crs.
Prq.: PY 200.
The shaping of behavior, laboratory conditioning, reinforcement, approach and avoidance of a goal, discrimination and generalization of physical cues, animal learning experiments. Experimental approaches to the study of human behavior. Assistant Professor Chisholm.

PY 308  Experimental Social Psychology  3 crs.
Prq.: PY 230 and MA 110.
Recent research including developments in methodology, theory, and research findings. Situational and individual differences approaches useful in testing theories and hypotheses and in resolving conflicting findings of previous research. Research project required of the student. Associate Professor Greenwald.
PY 310  Clinical Psychology  
Prq.: PY 231 and PY 300. 
Survey of diagnostic and treatment procedures and resources in clinical work with children and adults; professional skills and responsibilities of the clinical psychologist. Professor Eisenthal.

PY 312  Attitude Change Research  
Prq.: PY 230 and MA 110. 
Empirical research in persuasion; communicator credibility, opinion difference, commitment, one-sided (pro) and two-sided (pro and con) arguments, coercion, threat, emotional and rational arguments. Theories of attitude change, including dissonance theory, balance theory, congruity theory, and assimilation and contrast theory. Associate Professor Greenwald.

PY 315  Psychological Theory  
Prq.: At least four courses in psychology. 
Fundamental assumptions underlying the psychological enterprise, and issues which are the subjects of continuing debate in the field—e.g., causality, determinism, methodological approaches, the control of behavior, conceptions of the nature of man. Associate Professor Scroggs.

PY 326  Seminar: Research Methods in the Behavioral Sciences  
Prq.: MA 110 and at least four courses in Psychology.
The strategies of scientific research (hypothesis formation, experimental design, statistical analysis, data interpretation) and the tactics of obtaining reliable information and minimizing artifact (survey methods, various kinds of interviews, individual difference measures, controlled laboratory conditions). Offered only to majors in Psychology or another Behavioral Science. Associate Professor Greenwald.

PY 342  Physiological Psychology  
Prq.: BI 102 and PY 200. 
A general survey of the neural bases of behavior and current issues of physiological psychology. Topics include: instinctive behavior, biopsychological investigation of learning and motivation. Assistant Professor Chisholm.

PY 343  Laboratory in Physiological Psychology  
Prq.: BI 102 and PY 342 and consent of Instructor. 
Skills in the laboratory technique used in bio-psychology are developed. Topics include: animal neurosurgery, electro-physiological stimulation and recordings, and the effects of drugs upon behavior. Assistant Professor Chisholm.

PY 351  Community Psychology and Mental Health  
Prq.: PY 300 and PY 231; or permission of the department.
Examination of principles, literature, and practices of community mental health work and preventive psychiatry. Therapeutic methods in individual, couple, family and group work considered, as well as the role of consultation and the community mental health center. Staff

PY 400  Research Practicum  
Prq.: PY 326. 
Individual or group research project. Primarily for senior majors in Psychology; others by special arrangement. Staff.

PY 402  Directed Studies  
Supervised individual project (reading, discussion, and report) for students who have completed the major portion of their degree requirements. Primarily for senior majors in Psychology. Staff.
DEPARTMENT OF SECONDARY EDUCATION

Professor Stanley Clement, Acting Chairman.
Professor Frederick Meier.
Associate Professors: Arthur Baker, David Englund and Paul Kelley.
Assistant Professors: Robert Fitzgibbons, Burton Goldman, John Jones,
Leo McGuirk, and Raymond ZuWallack.

The Department of Secondary Education strives to provide students with the professional competencies necessary to become effective secondary teachers, including a knowledge of the principles upon which American secondary schools are founded and an ability to use appropriate teaching procedures, materials, and evaluation techniques.

Students preparing to teach in grades 7 through 12 pursue a program leading to the degree of Bachelor of Arts or Bachelor of Science with a minor in Secondary Education. Required courses in the minor, and years usually taken: Sophomore—ED 210, ED 211; Junior—ED 312-326; Senior—ED 490. Successful completion of this sequence enables the student to receive a Secondary Teaching Certificate upon graduation. In order to be admitted to the Teacher Education Program, each student must be approved by the Committee on Admissions and Retention in Teacher Education. Appropriate and desirable experiences are encountered in public schools, where the student is involved in investigating, assisting, tutoring, observing and student teaching.

Through the Teacher Preparation Office, the Department of Secondary Education works closely with all college departments providing secondary majors, and with area school systems that participate in the Teacher Preparation program.

The Department also provides service and elective courses in Philosophy of Education.

ED 210 Principles of Secondary Education

The influence of the school and of society upon each other and upon the student are studied. New educational developments are related to the school and its problems. The students actively study school problems in their setting by completing relevant environmental experiences on location. Problems common to most schools are studied. These include: goals and objectives, history and philosophy, organization, administration, curriculum, law, management, individual differences, discipline, guidance, and evaluation. Students are asked to gain meaningful experiences through observing, assisting, or tutoring activities within the secondary school environment. Professor Meier, Associate Professor Kelley and Assistant Professor Goldman.

ED 211 Educational Psychology

The problems of the adolescent student and how he learns in the secondary school are studied together. Students are helped, in cooperation with a professor in Education, to assimilate and apply this learning theory by obtaining for them tutoring and other relevant experiences in approved schools, hospitals, or other institutions in the region. Assistant Professor ZuWallack.
DEPARTMENT OF SECONDARY EDUCATION

ED 312-326  Methods and Materials in Secondary Education  6 crs.
Preq.: PY 200.
In a team teaching situation, students study the methods and materials involved in teaching and functioning as a member of a secondary school faculty. More specifically, they will study materials and methods appropriate for their own discipline, relevant philosophical concepts, testing and measurements, instructional media, illustrations, effective speech, and unit organization for teaching. Other topics of study may be developed according to students' individual needs. Students will be expected to investigate, assist, tutor and observe in community schools. Faculty of the Departments of Philosophy, Education, Instructional Media, Speech, and the various academic departments will form a cooperating team to conduct the course.

Professional Education Team Members
Associate Professor Englund  Secondary Education Department
Assistant Professor Fitzgibbons  Secondary Education Department
Assistant Professor McGuirk  Secondary Education Department
Professor Rosen  Instructional Media Department

Course Designation and Academic Department Team Members
ED 312 Social Studies  Associate Professors Spence
ED 314 English  and Keay
ED 316 Earth Science  Assistant Professors Wood
ED 317 Geography  and Nerney
ED 319 Physical Science  Associate Professor Boutilier
ED 320 Biology  Mr. Dillman
ED 322 Mathematics  Professor Weygand
ED 324 French  Professor Cirino
ED 326 Speech  Associate Professor Lemos
                      Assistant Professor Shapiro
                      Professor Pitts

ED 380  Contemporary Issues in Education  3 crs.
The identification and analysis of fundamental issues currently facing the American educator. The goal is to understand the source of the problems and to evaluate suggested solutions. Assistant Professor Fitzgibbons.

ED 382  Comparative Education  3 crs.
Representative educational patterns from Asia, Africa, Europe, North and South America and their relationship to social institutions and problems. Associate Professor Englund.

ED 443  Secondary School Curriculum  3 crs.
Purposes of the modern secondary school and the curriculum needed to implement them: historical origins, modern development, and future possibilities. Stress is laid on the manner in which the curriculum is built, behavioral objectives, visits to resource centers, assisting in curriculum construction, and methods of curriculum evaluation. (Not offered in 1973-1974.)

ED 480  Philosophy of Education  3 crs.
An introduction to thinking critically and imaginatively about education from the viewpoint of philosophy. Emphasis is placed on understanding the philosophical presuppositions which underlie educational practices and policies. Associate Professor Englund, Assistant Professor Fitzgibbons.
ED 485 History of Educational Thought 3 crs.
Research and evaluation of the theories of education from which present educational practices, policies, and theories have developed. (Not offered in 1973-1974.)

ED 487 History of American Education 3 crs.
An examination of the development of education in America from colonial times up to the present with a consideration of probable future directions. (Not offered in 1973-1974.)

ED 490 Supervised Teaching in the Public Schools 6 crs.
Students are assigned to appropriate student teaching stations where they work in an approved situation under an experienced supervising teacher. This is a practical experience for one quarter in a public school where student teachers are functioning as professional teachers. A college supervisor visits to assist the student teacher. Seminars may be held to exchange experiences. Students are expected to carry a minimum responsible teaching load equal to 50% of the regular classroom teacher’s assignment. Full time for one quarter. Associate Professor Baker and Staff.

DEPARTMENT OF SOCIOLOGY

Professor Morgan Brown, Chairman
Professor Clay Greene.
Associate Professor Abraham Thomas.
Instructor Jaime Calderon.

Required for a Major in Sociology: SO 202, 303, 306, 400, and 402, plus three to five other courses in Sociology. Additional required course: MA 110. There is no foreign language requirement in sociology.

SO 202 Introduction to Sociology 3 crs.
Social structure, basic human institutions, analysis of social processes, major social forces. Professor Brown and Staff.

SO 204 Sociology of Religion 3 crs.
Comparative study of religious systems and institutions, function and role of religion and the church in society; professional status, history and relations of the clergy. Associate Professor Thomas.

SO 303 The Family 3 crs.
The family as a social institution in terms of its historical and cultural development. Analysis of psychological and social factors in contemporary family life. Professor Brown, Professor Greene.

SO 304 Social Stratification 3 crs.
Historical and contemporary examples of the range of stratification systems. Problems of class and caste conflicts. Trends in class system and social mobility, with special attention given to similarities and differences of modern industrial societies. Professor Greene, Associate Professor Thomas.
SO 305  Sociology of Education  3 crs.
Educative factors in the social process. Some attention will be given to preliterate cultures and the functioning of the dominant institutions. Major emphasis on the relation of stratification to education, and of education to horizontal and vertical mobility. Social class and ethnic backgrounds will be examined for their relationship to the functioning of schools. Recent, well-known empirical findings will be discussed. Professor Brown.

SO 306  Urban Sociology  3 crs.
Prq.: SO 202, or ES 353, or AN 201, or AN 202.
A sociological and ecological analysis of the city in terms of urban institutional and personality patterns, folkways and mores. Ecological processes and structures. The city as center of dominance over a trade area and hinterland. Professor Brown, Professor Greene.

SO 307  Urban Problems  3 crs.
Prq.: Same as SO 306.
Poverty, intergroup conflict, breakdown in education, crime, delinquency and urban riots will be examined. Special emphasis will be on new approaches in education in the city—decentralization, community control, relevant curriculum. For students preparing for urban teaching. Experience in a problem area will be an integral part of the course. Professor Greene.

SO 309  Introduction to Social Welfare  3 crs.
Institutional analysis of social welfare, social agencies. Sociological aspects of social work as a profession. Professor Greene.

SO 310  Indian Cultures and Social Organization  3 crs.
A descriptive and analytical examination of societies of the Indian subcontinent dealing with their cultural histories, economic, social, political and religious institutions. Problems of cultural and social change. Professor Thomas.

SO 312  Urban Minority Relations  3 crs.
Prq.: Same as SO 306.
A study of the relations between ethnic and racial groups in the United States, with particular attention to the Boston Irish, the Boston Italians, and the Negro-Americans. Concentrations will be upon the Negro in America and the problems of identity. Professor Brown.

SO 314  Case Work Methods  3 crs.
Prq.: SO 309.
Case work is based on recognition of internal psychological problems and external social causes of an individual failure to function satisfactorily. Techniques of interviewing. Theoretical study of human behavior. Experience in social work agencies. Professor Greene.

SO 316  Social Problems I: Non-Conforming Behavior  3 crs.
Prq.: SO 202.
Contemporary social problems which are reflected in the behavior of individuals, but whose origins and causes lie outside of individuals. Topics treated will include drugs, dope-addiction, crime, juvenile delinquency, divorce and other family problems, mental illness and other health problems, social class, and selected social issues. Professor Greene and Staff.

SO 318  Social Problems II: Structural Discontinuities and Value Conflicts  3 crs.
Prq.: SO 202, SO 316, or consent of the instructor.
A continuation of Social Problems I. Unemployment, mass poverty, problems of mass communication, world population growth, war, and other major problems involving total societal organizations. Problems will be treated from the standpoint of social change, resulting disorganization, and value conflict. Professor Brown and Staff.
SO 320 The Sociology of Underdevelopment 3 crs.
Prq.: SO 202, or AN 201.
The study of the "Third World," its kinship, economic, religious, political and international roots, present functions and possible future consequences. Associate Professor Thomas.

SO 322 Field Experience Internship in Urban Living 6 crs.
Prq.: SO 202 or AN 201, or AN 202.
A supervised field experience internship in urban living. Open to students enrolled in the Divisions of Behavioral Sciences or Education. Work with low-income families and with social agencies and institutions serving the disadvantaged in Boston, Brockton, Fall River, and New Bedford, Massachusetts. Class meetings with the instructor for five hours one day each week. Professor Brown and Staff.

SO 328 Criminology 3 crs.
Prq.: SO 202 or its equivalent.
This course will be concerned with theories of crime causation, and perspectives on administration, treatment, prevention, and prediction. Consideration will be given to the influence of social class and other factors in criminal behavior. Staff.

SO 400 Seminar: Social Theory 3 crs.
The history of social theory and selected topics in modern social theories, analysis of alternative conceptual approaches and their methodological requirements. For majors in Sociology or Behavioral Sciences. Professor Brown and Staff.

SO 402 Seminar: Research Methods in Sociology 3 crs.
Application of scientific methods to the analysis of social phenomena, methodological orientation in sociology, types of research procedure, nature of sociological variables. For majors in Sociology or Behavioral Sciences. Professor Brown, Mr. Calderon.
DEPARTMENT OF SPEECH AND THEATRE

Associate Professor Robert Barnett, Chairman
Professors: Karin DuBin, Willis Pitts.
Associate Professor: Richard Warye.
Assistant Professors: Lee Dunne, Robert Friedman, Stephen Levine.
Instructors: Susan Miskelly, Joanne Wuschke.

There are three separate and distinct programs available to those students who choose to major in the Speech and Theatre Department. 1) Speech. A course of studies designed to make students aware of oral communication as it occurs in public speaking, small group discussions, interpersonal relationships, and formal debate. 2) Speech Communication Disorders. A series of courses which acquaint the students with the areas of speech and hearing science and offers pre-professional training in speech pathology and audiology. 3) Theatre. A program designed to familiarize students with those subjects related to performance in the theatre and to develop an appreciation for live drama.

Each student must complete not less than 24 and no more than 36 semester hours in his field of concentration. All who choose to major in Speech and Theatre take the following departmental basic requirements: ST 200, 310, 370, 410 and 495. In addition, there are courses which are required within the chosen areas of concentration. In Speech: ST 350, 351, 360, and 460; in Speech Communication Disorders: ST 291, 490, 491, and 499; in Theatre: ST 380, 390, 395 and 430. There is no foreign language requirement for a major in Speech and Theatre.

Eighteen credits are required within the department for a minor in Speech and Theatre. ST 200, 370, and 410 form the basis of the minor and the additional nine credits must be taken in one area of interest.

Students may receive credits in the Speech and Theatre Department for active participation in Debate, Verse Choir and Theatre. A total of no more than six s.h. credits may be earned over a four-year period (no more than one credit per semester may be awarded.)

The Speech and Theatre Department faculty administers an oral speech test to all in-coming freshmen. This test determines which students will enter the speech improvement program. In addition, the College has established minimum voice, articulation, and fluency standards that must be met before a student is allowed to do student teaching. (See ST 001.)

ST 001  Speech Improvement
Clinical therapy for students failing to meet minimal speech qualifications for teacher training. No credit. Hours arranged. Professor Pitts, Assistant Professor Dunne, Mrs. Wuschke.
*ST 110 Debate Practicum 1 cr.
Credit is given for sixty (60) or more hours of participation in inter-collegiate debate and Forensics.

*ST 120 Choral Speaking Practicum 1 cr.
Credit is given for sixty (60) or more hours of participation in Verse Choir.

*ST 130 Theatre Practicum 1 cr.
Credit is given for sixty (60) or more hours of participation in Theatre.

ST 200 Oral Communication 3 crs.
Examination of the practical and theoretical aspects of interpersonal communication. Associate Professor Barnett and Staff.

ST 210 Voice and Diction 3 crs.
Analysis of each student's habits of respiration, phonation, and articulation; exercises designed to correct poor habits. Physics and physiology of the vocal mechanism. Training in perception, differentiation, and production of the standard sounds of good American speech. Assistant Professor Dunne.

ST 220 Communicative Reasoning 3 crs.
Basic theories of rhetorical logic from Aristotle to Blair, Campbell, Whately, through I. A. Richards. Miss Miskelly.

ST 290 Speech Improvement in the Classroom 3 crs.
Voice and hearing mechanism. Voice sounds. Problems and needs of speech-handicapped children. Associate Professor Pitts.

ST 291 Phonetics 3 crs.
Speech sound production. The international Phonetic Alphabet and American English. Associate Professor Pitts.

ST 310 Oral Interpretation 3 crs.

ST 330 Creative Dramatics 3 crs.
Development of the child's creative faculties through the use of dramatic play in laboratory sessions as well as classroom activity. Assistant Professor Dunne.

ST 350 Public Speaking 3 crs.
Intensive study, evaluation and analysis of speech preparation with frequent presentations of various speech types. Miss Miskelly.

ST 351 Persuasion 3 crs.
Prq.: ST 200.
Study of the theory of persuasive speaking with frequent practice. Miss Miskelly.

*From the above one-credit co-curricular activities, ST 110, 120 and 130, and from any and all co-curricular activities in which a student might wish to participate and from which the College grants, or may decide to grant credit in the future, a student may accumulate not more than one (1) credit per semester, nor more than two (2) per year, nor more than six (6) per four year degree program.
ST 360  Group Discussion  3 crs.
Prq.: ST 200.
Principles of interpersonal communication with stress on participation, leadership, and reasoning. Miss Miskelly.

ST 361  Parliamentary Procedure  3 crs.
Principles and practice. Relationship to the conduct of business in clubs, governments and other organizations. Professor DuBin.

ST 370  Play Production I  3 crs.
Reading, selection, analysis, and preparation of scripts for presentation. Theory and practice. Associate Professor Barnett.

ST 380  Stagecraft  3 crs.
Prq.: ST 370*
Theory and practice of technical theatre production with emphasis on principles of set design, construction, and lighting. Costuming, properties, make-up, and sound. Associate Professor Warye.

ST 385  Stage Lighting  3 crs.
Materials and techniques fundamental to historical and contemporary stage lighting; analysis of the principles of design as they relate to contemporary theatre execution. Assistant Professor Levine.

ST 390  Principles of Acting  3 crs.
Prq.: ST 370.
Development of appreciation and basic skills in the fundamentals of acting. Exercises, improvisations, and scenes. Assistant Professor Friedman.

ST 395  Principles of Directing  3 crs.
Prq.: ST 370.
Basic knowledge and techniques for the beginning director. Play analysis, composition, movement, characterization and rehearsal. Assistant Professor Friedman.

ST 400  Creative Techniques for Teaching  3 crs.
Story telling, creative dramatics, role playing, choral speaking, puppets and masks, and other speech arts, and their practical application in teaching various subjects. Associate Professor Barnett and Staff.

ST 420  Children's Theatre  3 crs.
Prq.: ST 370.
Theatre for the child audience. Theories applied by assuming responsibility for the production of a play for children on campus and in area schools. Associate Professor Warye.

ST 430  Theatre History  3 crs.
Trends in dramatic and theatrical developments throughout the world, beginning with ancient Greece and concluding with contemporary drama, with special attention to American theatre. Assistant Professor Levine.

ST 440  Audiology  3 crs.
Prq.: ST 290, ST 291.
Science of hearing: transmission and measurement of sound to the human ear. Anatomy, physiology, and neurology of hearing mechanism. Related pathological conditions. Assistant Professor Dunne.
## DEPARTMENT OF SPEECH AND THEATRE

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ST 450</td>
<td>Communicative Theory</td>
<td>3 crs.</td>
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<tr>
<td></td>
<td>Examination of the communication process: the communicator, message, communicatee and the environment in which a message takes place. Theory and practice. Associate Professor Barnett.</td>
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<tr>
<td>ST 460</td>
<td>Argumentation and Debate</td>
<td>3 crs.</td>
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<td>ST 470</td>
<td>Playwriting</td>
<td>3 crs.</td>
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<tr>
<td></td>
<td>Appreciation of the nature of the play as an art form. Analysis of plays of various types; practice in writing. Professor DuBin.</td>
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<tr>
<td>ST 480</td>
<td>Introduction to Television</td>
<td>3 crs.</td>
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<tr>
<td></td>
<td>Television as a medium of communication in society and in the school. Study of the historical development of broadcasting and the current status of the medium. Active participation in developing skills of performance for use as an educator, civic leader, or professional broadcaster. Associate Professor Warye.</td>
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<tr>
<td>ST 485</td>
<td>Directing for Television</td>
<td>3 crs.</td>
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<tr>
<td></td>
<td>Prq.: ST 480. Principles and skills involved in the production of units or programs for television presentation. Associate Professor Warye.</td>
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<tr>
<td>ST 490</td>
<td>Speech Anatomy and Physiology</td>
<td>3 crs.</td>
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<tr>
<td></td>
<td>Examination of the human hearing and vocal mechanisms involved in the speech act and their relationship to various speech disorders. Professor Pitts.</td>
<td></td>
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<tr>
<td>ST 491</td>
<td>Speech Communication Disorders I</td>
<td>3 crs.</td>
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<tr>
<td>ST 492</td>
<td>Speech Communication Disorders II</td>
<td>3 crs.</td>
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<tr>
<td></td>
<td>Prq.: ST 491 and consent of the instructor. Continuation of Speech Communication Disorders I. Etiology of organic disorders such as voice, aphasia, cerebral palsy, cleft palate, Parkinson's disease, laryngectomy and rehabilitation procedures. Mrs. Wuschke.</td>
<td></td>
</tr>
<tr>
<td>ST 493</td>
<td>Speech Reading and Auditory Training</td>
<td>3 crs.</td>
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<tr>
<td></td>
<td>Prq.: ST 410 or consent of the instructor. Habilitative and rehabilitative procedures for the deaf and hard of hearing with emphasis on auditory training, speech reading and speech conservation. Professor Pitts and Staff.</td>
<td></td>
</tr>
<tr>
<td>ST 495</td>
<td>Speech and Theatre Seminar</td>
<td>3 crs.</td>
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<tr>
<td></td>
<td>Study and application of research methods in the area of speech and theatre, with particular emphasis on the individual student's interests in the discipline. Required of all speech and theatre majors. Associate Professor Warye and Staff.</td>
<td></td>
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<tr>
<td>ST 499</td>
<td>Clinical Practicum</td>
<td>6 crs.</td>
</tr>
<tr>
<td></td>
<td>Prq.: Speech Communication Disorders I and II. Supervised clinical practice in diagnostics and therapy. Professor Pitts, Assistant Professor Dunne, Mrs. Wuschke.</td>
<td></td>
</tr>
</tbody>
</table>
INTERDEPARTMENTAL PROGRAMS

The following interdepartmental programs are offered within the Divisions of Natural Sciences and Mathematics, Social Sciences and Behavioral Sciences.

CHEMISTRY—GEOLOGY MAJOR

A major in Chemistry-Geology is offered jointly by the Departments of Chemical Sciences and Earth Sciences and Geography. This program is designed to prepare students for graduate school and professional employment in geo-chemistry and geology. Careers in these fields may involve petroleum, mineral and groundwater exploration, or research in geochronology, mineralogy, crystallography and oceanography. This major is particularly suited to students interested in chemical or geological oceanography. The program is flexible in that it allows the student to specialize in a variety of areas by suitable choice of electives.

Chemistry-Geology majors are required to take the following courses: CH 141, 142 (or CH 131, 132); ES 181, 192, 372. In addition to the above requirements, majors must elect a minimum of two additional semesters of chemistry, two semesters of physics, and two semesters of mathematics. In addition to these electives the student must elect a minimum of six hours of chemistry, earth sciences, mathematics, or physics which have been approved by the student’s advisor.

The Chemistry-Geology major at Bridgewater State College is recognized by the New England Student Regional Program as an undergraduate four-year degree opportunity for residents of New England. Students who are legal residents of Connecticut, Maine, New Hampshire, Rhode Island, and Vermont and are accepted for study in this major will pay only the instate tuition fee.

PRE-MEDICINE

Although medical schools do not require a major in a particular discipline, they expect applicants to have achieved high academic standing in the fields of biology, chemistry, physics, mathematics, English, and foreign languages. Most students who plan to enter medicine as a profession will find it advisable to major in either biology or chemistry. A student who is interested in medicine should consult both his major advisor and a member of the Pre-medical and Pre-dental Committee early in his freshman year.

PRE-DENTAL

While some dental schools admit applicants after three years of college work, most prefer students with a bachelor’s degree. As in medicine, there is no requirement for a major in a particular discipline. Most students who plan to enter dentistry as a profession will find it advisable to major in either biology or chemistry. Applicants for dental school should meet the requirements of the major in a given department and must also satisfy the requirements in biology, chemistry, physics, and English as set by each dental school. A student who is interested in dentistry should consult both his major advisor and a member of the Pre-medical and Pre-dental Committee early in his freshman year. Pre-medical and Pre-dental Committee: Wilmon Chipman, Kenneth Howe (Chairman), Walter Morin, Kenneth Sumner.
OCEANOGRAPHY

Programs in oceanography are offered as a cooperative effort of all departments within the Division of Natural Sciences and Mathematics. These programs are designed to prepare students for graduate school or professional employment in oceanography. Bridgewater State College is a member of the Marine Sciences Consortium based at the Massachusetts Marine Academy. Summer programs in the Consortium allow the student to participate in course work in specialized areas of oceanography, to participate in research, and to gain experience in actual field techniques on board ship. Participation in this program provides the student the necessary foundation for either further academic work in oceanography or employment in a variety of areas.

Most graduate schools of oceanography require an undergraduate major in biology, chemistry, earth sciences, or physics. All students interested in an oceanography program should major in one of these disciplines. Graduate schools of oceanography expect students to include the following courses in their undergraduate programs: Calculus I and II, Inorganic Chemistry and Qualitative Analysis or General Chemistry, General Physics or elements of Physics, Quantitative Analysis, General Botany, General Zoology, Physical Geology, and Introduction to Oceanography I and II.

These courses, together with one of the majors indicated above, provide a basic foundation for further study in one of the four principal branches of oceanography, i.e.: biological oceanography, chemical oceanography, geological oceanography, and physical oceanography. Additional courses in related areas may be selected by the student with the approval of his major advisor. A student who is interested in oceanography should consult both his major advisor and a member of the Advisory Committee on Oceanography during his freshman year. Advisory Committee on Oceanography: Elizabeth Cirino (Chairman), Robert Boutilier, Henry Daley.

URBAN AFFAIRS

The College offers an interdisciplinary minor concentration in Urban Affairs under the auspices of the Anthropology, Geography, History, Political Science, Psychology, and Sociology Departments. A major purpose of this minor is to provide students with a broader understanding of and sensitivity to the complex problems facing the urban environment through the combined efforts of different disciplines at the college. The program is designed to provide students with an opportunity for direct contact and work in fields such as urban planning, urban government, social welfare, social psychology, and urban education.

This minor is open to all college students, although the greatest number of potential minor candidates will most likely come from the disciplines of Anthropology, Geography, History, Political Science, Psychology, and Sociology. Courses taken to satisfy requirements of a major may not be counted in the minor. Students interested in this program are encouraged to take their General Education electives in the area of minority studies. The minor program consists of two options:
**OPTION A:**

Open primarily to qualified students majoring in Anthropology, Geography, History, Political Science, Psychology and Sociology. Students are required to take four of the following courses, excluding the one in their major:

- So 306 (Urban Sociology)
- Es 353 (Urban Geography)
- Py 230 (Social Psychology)
- An 307 (Urban Dynamics)
- Po 377 (State and Local Government)

12 credits

Internship: This internship is similar to student teaching. Students are placed for a quarter in a planning agency, municipal government office, health department, welfare office or other urban agency. The purpose of this internship is to allow a student to become familiar with the various aspects of his urban interest.

6 credits

Total 18 credits

**OPTION B:**

Required:

- So 306 (Urban Sociology)
- Es 353 (Urban Geography)
- Ph 230 (Social Psychology)
- An 307 (Urban Dynamics)
- Po 377 (State and Local Government)

15 credits

Elective from:

- So 312 (Urban Minority Relations)
- Po 376 (Municipal Government)

3 credits

Total 18 credits

Students interested in this program should contact their Department Chairman for further information.

The following programs require that six hours of the elective history courses be in non-U.S. History

**HISTORY—ANTHROPOLOGY**

This major is offered jointly by the Departments of Anthropology and History with a minor in Secondary Education in Social Studies.

The course requirements are History 111, 112, 221, and 222 and four elective courses in History; Education 210, 211, 312 and student teaching in History or Social Studies; Anthropology 201 and 205 and seven elective courses.

**HISTORY—PSYCHOLOGY**

This major is offered jointly by the Departments of Psychology and History with a minor in Secondary Education in Social Studies.

The course requirements are History 111, 112, 221, and 222 and four elective courses in History; Education 210, 211, 312 and student teaching in History or Social Studies; Psychology 200, 226, 230 and 322 and five elective courses.
INTERDEPARTMENTAL PROGRAMS

HISTORY—SOCIOLOGY

This major is offered jointly by the Departments of Sociology and History with a minor in Secondary Education in Social Studies.

The course requirements are History 111, 112, 221, and 222 and four elective courses in History; Education 210, 211, 312 and student teaching in History or Social Studies; Sociology 202, 303, 306, and 400 and five elective courses.

HISTORY—BEHAVIORAL SCIENCES

This major is offered jointly by the Divisions of Behavioral Sciences and Social Sciences with a minor in Secondary Education in Social Studies.

The course requirements are History 111, 112, 221, and 222 and four elective courses in History; Education 210, 211, 312 and student teaching in History or Social Studies; Anthropology 201 and 205; Sociology 202 and 306; Psychology 200 and 230 and two elective courses in one of the three Departments.
Mr. William E. Aubuchon, Jr., Chairman
Mrs. Sylvia K. Burack, Vice-Chairman
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Mr. John M. Cataldo
Mr. Carlton W. Edmonds, Jr.
Mr. Walter H. Flinn
Mr. Arthur J. Gartland
Mr. A. Earl Kelton
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Director of the Division of Natural Sciences
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     Professional Education.......................... Stanley Luther Clement, Ed.D.
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     and Placement ..................................... Arthur Francis Baker, M.Ed.
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Director of the Division of Social Sciences ...... Jordan Dominic Fiore, Ph.D.
(ranking) Librarian.................................. Owen Thomas P. McGowan, M.S. in L.S.
(assistant) Librarian................................. Tom G. Watson, M.S. in L.S.
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Resident Counselor of Women......................... Genevieve Mary Ash, M.A.

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Head of Male Residences .................. Albert Joseph Petitpas, M.Ed.
Clinical Psychologist.......................... Sherman Eisenthal, Ph.D.
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Assistant Director of the Student Union..... Robert Stanley Sharples, M.Ed.
Assistant Director of the Student Union......... Richard Alan Veno, M.Ed.
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Priscilla L. Chapman, Burnell School
Margaret L. Collins
Earth Sciences and Geography
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Ralph J. Hickey, Biology
David G. Owen, Biology
Linda B. Stafford, Chemistry
Marcia A. Webb, Physics

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MARCIA J. ANDERSON, B.A. (University of Rochester), M.A., Ph.D. (Brandeis University), Assistant Professor of English.

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CHARLES FRANCIS ANGELL, B.A. (Colby College), M.A. (University of Massachusetts), Instructor of English.

STANLEY STEPHAN ANTONIOTTI, B.A. (Marietta College), M.A. (Lehigh University), Instructor of Economics.

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GENEVIEVE MARY ASH, Adj. in Arts (Harvard University), M.A. (Suffolk University), Assistant Professor of Education.

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ROBERT JACKSON BARNETT, A.B. (Juniata College), M.A. (Pennsylvania State University), Associate Professor of Speech and Theatre and Chairman of the Department of Speech and Theatre.

RALPH SAMUEL BATES, A.B., A.M. (University of Rochester), A.M., Ph.D. (Harvard University), Professor of History.

ROBERT JOSEPH BENT, B.S. (Boston College), Ed.M. (Boston State College), M.A. (San Diego State College), Associate Professor of Mathematics.

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RAYMOND LORENZO BLANCHARD, B.S. (Southeastern Massachusetts University), M.Ed. (Bridgewater State College), M.S. (Rensselaer Polytechnic Institute), Associate Professor of Physics.

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BARBARA ANNE CHELLIS,* B.S. (Simmons College), M.A., Ph.D. (Brandeis University), Professor of English.

DAVID ROSS CHENEY, B.A. (Arizona State University), Ph.D. (University of Miami), Assistant Professor of Philosophy and Chairman of the Department of Philosophy.

JOSEPH BIGGI CHICCARELLI, B.S., M.A. (Boston College), Associate Professor of Mathematics, Director of the Division of Continuing Education and Dean of Administration.

WILMON BLACKMAR CHIPMAN, B.A. (Harvard University), A.M. (Dartmouth College), Ph.D. (University of Illinois), Professor of Chemistry and Chairman of the Department of Chemistry.

DRAKE COLIN CHISHOLM, B.A., M.A., Ph.D. (University of Massachusetts), Assistant Professor of Psychology.

DUANE LEE CHRISTENSEN, B.S. (Massachusetts Institute of Technology), B.D. (California Baptist Seminary), Th.D. (Harvard University), Assistant Professor of History.

*Deceased, December 1972.
ELIZABETH FAHEY CIRINO, B.S. (Bridgewater State College), A.M., Ph.D. (Boston University), Professor of Zoology.

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COR A MAY VINING, B.S. (Bridgewater State College), A.M. (Boston University), B.S. (Simmons College), Associate Professor of Library Science. 1958-1972.
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The provisions of this bulletin are not an irrevocable contract between the student and the College. The College reserves the right to change any provision or requirement at any time within the student’s term of residence. The College further reserves the right to ask the student to withdraw for cause at any time.
DIRECTIONS FOR CORRESPONDENCE

The general address for all correspondence is: Bridgewater State College, Bridgewater, Massachusetts 02324, telephone 617-697-6161. In order to avoid delay, correspondents are requested to note the following directions when requesting information and materials from the College.

Requests for:

*Undergraduate catalogues* should be addressed to the Director of Admissions.

*Graduate catalogues* should be addressed to the Office of the Graduate School.

*Continuing Education brochures* should be addressed to the Division of Continuing Education.

*Transcripts*

Students who hold a bachelor’s and/or a master’s degree from this college should write to the Registrar.

Students who have not completed their bachelor’s degree should write to the Registrar for a transcript of courses taken through the Day Session, and to the Director of Continuing Education for a transcript of courses taken through the Division of Continuing Education.

Students who have earned their baccalaureate but who have not completed their master’s degree at Bridgewater State College, should write to the Director of Continuing Education for a transcript of courses taken in the Division of Continuing Education and to the Registrar for transcripts of courses taken in the Day Session.

There is a charge of $1.00 per transcript.

Inquiries concerning:

*Employment, health services, housing, loans, and scholarships,* should be addressed to the Director of Student Services.

*The Summer Session at Bridgewater State College* should be addressed to the Director of Continuing Education.

*The Summer Session at Hyannis* should be addressed to the Director of the Hyannis Summer Session.

*The Graduate School* should be addressed to the Dean of the Graduate School.

*Placement and student teaching* should be addressed to the Director of Teacher Preparation and Placement.

*Continuing Education* should be addressed to the Director of Continuing Education.

*Financial aid* should be addressed to the Financial Aid Officer.

*Alumni Affairs* should be addressed to the Executive Secretary of the Alumni Association.

*Academic employment* should be addressed to the chairman of the appropriate department.

*Non-academic employment* should be addressed to the Assistant to the President.

*Teacher Certification* should be addressed to the Director of Teacher Certification, Department of Education, 182 Tremont Street, Boston, Massachusetts, 02111.

Matters not covered above, and correspondence bearing upon the general interests of the College, should be addressed to the President.