



1998

Bridgewater State College Undergraduate/ Graduate Catalog 1998-1999

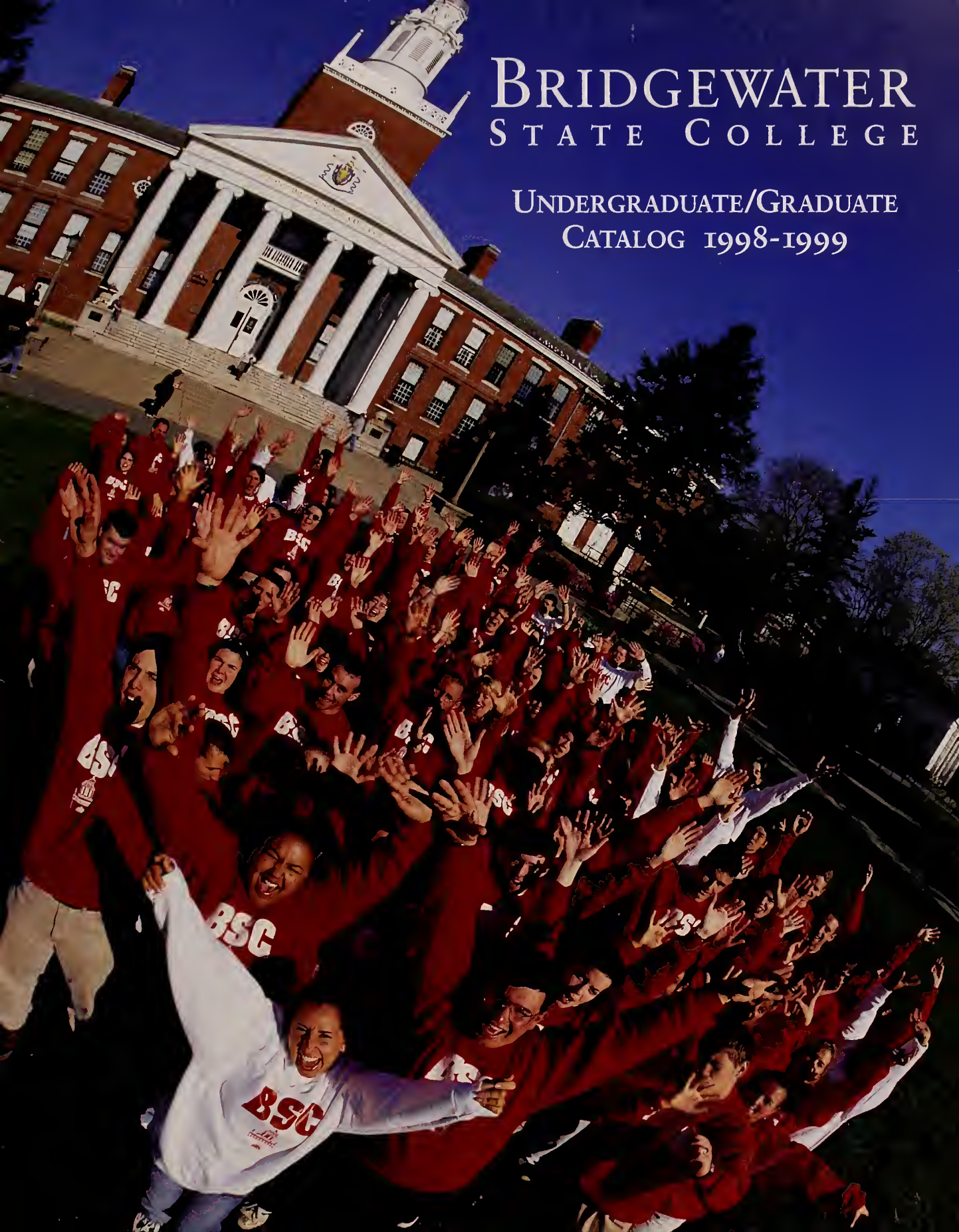
Bridgewater State College

Recommended Citation

Bridgewater State College. (1998). *Bridgewater State College Undergraduate/Graduate Catalog 1998-1999*.
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BRIDGEWATER STATE COLLEGE

UNDERGRADUATE/GRADUATE
CATALOG 1998-1999





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This 1998-1999 Bridgewater State College Catalog outlines your program of study. If your catalog is misplaced, a new copy can be purchased at the bookstore in the Rondileau Campus Center. This catalog can also be referenced on the college's website at www.bridgew.edu.

Bridgewater State College *Undergraduate/Graduate Catalog* *1998-1999*

Accreditations and Certifications

New England Association of Schools
and Colleges, Inc.
American Chemical Society
Council on Social Work Education
Federal Aviation Administration
Interstate Certification Compact
National Athletic Trainers Association
National Council for the Accreditation of
Teacher Education

This catalog is a guide for information only and not a contract. The college reserves the right to change requirements for degrees, academic policies, prerequisites, fees, scheduling, and related matters. Every effort is made to implement such changes in such a way that any new curricular requirements will work no hardship on a student who has entered under an earlier set of requirements.

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Policy on Non-Discrimination and Affirmative Action

As part of the Massachusetts Public Higher Education System, Bridgewater State College is committed to a policy of non-discrimination and affirmative action in its educational programs, activities, and employment practices. It is the policy of the college not to discriminate on the basis of race, sex, sexual orientation, color, national origin, age, religion, or handicap, in fulfillment of the requirements of Executive Orders 11246 and 11375, Titles IV, VI, VII, IX, and X of the Civil Rights Act of 1964 as amended in 1972, and all pertinent laws, regulations, and executive directives of the Commonwealth of Massachusetts and other applicable state and federal statutes. Inquiries concerning the college's compliance with affirmative action programs may be addressed to the Affirmative Action/Minority Affairs office, Bridgewater State College, Bridgewater, MA 02325. Telephone (508) 697-1241, or write to the Office for Civil Rights, Washington, D.C.

CALENDAR

Fall Semester — 1998

September

- 7 (Monday) Labor Day – No classes
- 9 (Wednesday) Classes begin at 8 AM
- 25 (Friday) Fall Convocation

October

- 1 (Thursday) Last day for receiving completed post baccalaureate, master's degree and CAGS applications for November admissions; Last day for graduate students to file request for November Comprehensive Examination; Last day for graduate students who expect to receive their degree in January to file the appropriate degree application form
- 12 (Monday) Columbus Day – No classes
- 27 (Tuesday) End of First Quarter
- 28 (Wednesday) Beginning of Second Quarter

November

- 11 (Wednesday) Veteran's Day – No classes
- 25 (Wednesday) Thanksgiving Recess begins at 4 PM
- 30 (Monday) Classes resume at 8 AM

December

- 16 (Wednesday) First Semester classes end
- 17 (Thursday) ... First Semester examinations begin
- 23 (Wednesday) .. First Semester examinations end

Spring Semester — 1999

January

- 4 (Monday) Last day for receiving completed post baccalaureate, master's degree and CAGS applications for February admissions
- 12-13 (Tues, & Wed.) Registration/Orientation
- 19 (Tuesday) Classes begin at 8 AM
- 29 (Friday) Winter Commencement

Spring Semester — 1999 (Continued)

February

- 1 (Monday) Last day for graduate students to file request for March Comprehensive Examination; Last day for graduate students who expect to receive their degree in May to file the appropriate degree application form
- 15 (Monday) Presidents' Day – No classes
- 17 (Wednesday) Monday schedule of classes (Wednesday classes will not meet)

March

- 5 (Friday) End of Third Quarter; Spring Recess begins at 4 PM
- 22 (Monday) Classes resume at 8 AM; Beginning of Fourth Quarter

April

- 1 (Thursday) Last day for receiving completed post baccalaureate, master's degree and CAGS applications for May admissions
- 19 (Monday) Patriot's Day – No classes
- 20 (Tuesday) Monday schedule of classes (Tuesday classes will not meet)

May

- 7 (Friday) Second Semester classes end
Last day for graduate students who expect to receive their degree in August to file the appropriate degree application form
- 10 (Monday) Reading Day (Day classes only)
- 11 (Tuesday) ... Second Semester examinations begin
- 17 (Monday) Second Semester examinations end
- 22 (Saturday) Spring Commencement

This is Bridgewater State College

History of the College

Bridgewater State College, one of the oldest public colleges in America, is rich in history and tradition. John Quincy Adams, Daniel Webster and Horace Mann were among the early supporters of the school, which was founded to prepare teachers for the public schools of the Commonwealth of Massachusetts. The first class, consisting of twenty-one women and seven men, matriculated in September 1840 and met in the basement of the former Town Hall. In 1846, the school moved to the present quadrangle into the first building in America erected for the preparation of teachers. As Bridgewater State College and the United States grew up together, the school's graduates traveled far beyond state borders, establishing dozens of schools and colleges along the moving frontier, and even as far away as Japan.

In 1921 Bridgewater State College was authorized to award the bachelor of science in education degree, and in 1932 it became Bridgewater State Teacher's College. Graduate courses were first offered in 1937. In 1960 a full-fledged, multipurpose liberal arts curriculum was introduced and the degree of bachelor of arts was first conferred.

Since 1960 the college has developed into a comprehensive institution, so that today its 262 full-time faculty offer an array of twenty-nine liberal arts and professional curricula to some 5,500 full-time undergraduates and 3,000 part-time undergraduate and graduate students. The Graduate School offers twenty-nine Master's, Certificate of Advanced Graduate Studies (CAGS), and Ed.D. programs.

The college's transition to a comprehensive institution is attributable to its geographic location. For the past two decades southeastern Massachusetts has been the only region in the Commonwealth to record population growth. Even more significant perhaps, in a state with the greatest concentration of colleges in the nation, only two comprehensive baccalaureate institutions of public higher education serve this region: Bridgewater State College and the University of Massachusetts Dartmouth. Formalized transfer agreements with the three community colleges in the region (Massasoit, Bristol and Cape Cod), bring large numbers of students to Bridgewater State College in the pursuit of a bachelor's degree. Nearly eighty percent of our students are drawn from southeastern Massachusetts, and a similar percentage of alumni live within a fifty-mile radius of the campus.



Mission of the College

The mission statement of Bridgewater State College was adopted in 1992. It states:

For over a century and a half Bridgewater State College has proudly and with distinction played a unique and leading role in the educational life of southeastern Massachusetts and in the Commonwealth as a whole. As a public regional institution of higher education, it responds creatively to the needs of a diverse population by generating and replenishing resources essential to the intellectual, economic, cultural and civic well-being of the areas which it serves. Through strong undergraduate and graduate programs in the arts, sciences and professions, Bridgewater State College liberally educates its students to think critically, communicate effectively and act responsibly within a context of personal and professional ethics. Essential to this mission is the college's emphasis on teaching, life-long learning and a campus life that nurtures individual development and encourages cultural diversity in a rapidly changing state, nation and world.

Institutional Values

The institutional values of Bridgewater State College are the foundation of our mission statement. The primary focus of this institution is on undergraduate education with an accessible teaching faculty which fosters exemplary academic

Bridgewater State College

standards. Likewise, we promote graduate education that supports the primary mission and focus of the college. We value scholarship and teaching within an environment of collegiality, integrity and professional ethics. We promote individual potential and scholastic achievement by means of a broad spectrum of learning experiences.

We value the uniqueness, worth and dignity of each person. While we recognize that students have responsibility for their own lives, we also believe that a supportive and friendly community life helps students learn and encourages their interaction with faculty and staff. We value a continuing association with our alumni.

We foster a liberal education for all students leading to lifelong personal and professional growth and strongly believe in academic responsibility and freedom, including the freedom to doubt and inquire. We place major emphasis on developing critical thinking and modeling effective citizenship. Consequently, discrimination, harassment and intimidation are unacceptable.

We value cultural diversity and strive to provide access to students of all ages, backgrounds and financial means. We believe that our institution should be an important resource for the entire region and provide a global perspective within a local context.

Goals

Consistent with its mission and values, the goals of Bridgewater State College are to:

- 1) become one of the leading undergraduate regional teaching universities in the United States;
- 2) develop a broad array of high quality graduate programs appropriate to the needs of the people of southeastern Massachusetts;
- 3) increase the representation of racial and ethnic minorities among students, faculty and staff;
- 4) strengthen the institution's position as a national leader in the field of teacher education and become a leader in the development, application and dissemination of technologies related to teaching;
- 5) promote and support professional growth and renewal of faculty, administrators and staff;

- 6) broaden sources of revenue to support the institution's mission;
- 7) continue to maintain and enhance a campus community life that promotes the cognitive and affective development of each individual;
- 8) develop and enhance the institution's role as an intellectual and academic bridge between the region and the global community.

College Profile 1997 - 1998

- LOCATION:** Bridgewater, Massachusetts, approximately 28 miles southeast of Boston in historic Plymouth County
- CHARACTER:** State-supported, four-year, co-educational
- FACULTY:** 262 full-time faculty members of whom 81% hold earned doctorates or other appropriate terminal degrees
- CAMPUS:** 30 academic, residential and service buildings on a 235-acre campus

This is Bridgewater State College

**Headcount Enrollment by School,
Class and Gender
Fall 1997**

	MALE	FEMALE	TOTAL
<i>School of Arts and Sciences</i>			
Freshmen	264	315	579
Sophomores	303	344	647
Juniors	289	402	691
Seniors	343	534	877
Total	1199	1595	2794
<i>School of Education and Allied Studies</i>			
Freshmen	103	359	462
Sophomores	116	412	528
Juniors	111	378	489
Seniors	159	416	575
Total	489	1565	2054
<i>School of Management and Aviation Science</i>			
Freshmen	172	87	259
Sophomores	127	110	237
Juniors	167	125	292
Seniors	250	190	440
Total	716	512	1228
<i>Matriculated Undergraduate Undeclared</i>			
	288	340	628
<i>Graduate School</i>			
Post-Bachelor Certificates	96	258	354
MA	18	60	78
MS	15	16	31
MAT	8	22	30
MEd	72	374	446
MPA	8	7	15
CAGS	24	55	79
Total	241	792	1033
<i>Certificate Programs</i>			
Undergraduate	7	13	20
Graduate	4	1	5
Total	11	14	25
<i>Non-Matriculated</i>			
Undergraduate	249	391	640
Graduate	143	381	524
Total	392	772	1164
Total Headcount for Fall 1997	3336	5590	8926

**Headcount Enrollment
By Residence
Fall 1997**

California	7
Connecticut	41
Florida	7
Georgia	1
Hawaii	1
Iowa	1
Louisiana	1
Massachusetts	8585
Maryland	4
Maine	19
Michigan	1
New Hampshire	24
New Jersey	20
New York	21
Pennsylvania	1
Rhode Island	59
Virginia	1
Vermont	7
Wyoming	1
Total - US	8802
International Student Enrollment	
Afghanistan	1
Bangladesh	1
Cape Verde	2
China	2
Denmark	1
Ecuador	1
France	2
Greece	2
Hong Kong	1
Ireland	1
Israel	2
Japan	74
Kenya	1
Korea	1
Lebanon	2
Pakistan	3
Poland	1
Russia	2
Sweden	5
Thailand	2
Turkey	1
United Kingdom	13
Zaire	1
Total - International	124
Total Headcount	8926

Bridgewater State College

**Undergraduate Majors
Fall 1997**

Undergraduate Studies

Baccalaureate Degree

Anthropology	57
Cultural Anthropology	44
Public Archeology	13
Art	211
Art	31
Crafts	15
Fine Arts	116
Graphic Design	49
Aviation Science	171
Aviation Management	46
Flight Training	125
Biology	220
Biology	162
Medical Biology	32
Cell/Molecular Biology	5
Environmental Biology	21
Chemistry	60
Chemistry	47
Biochemistry	11
Professional Chemistry	2
Chemistry-Geology	14
Communication Studies and Theatre Arts	403
Speech Communication	308
Communication Disorders	18
Theatre Arts	45
Teacher Certification in Theatre, Dance, Speech	32
Computer Science	216
Early Childhood Education	380
Earth Science	48
Earth Science	33
Geology	15
Economics	42
Elementary Education	699
English	291
English	249
Writing	42
French	1
Geography	68
Geography	38
Environmental Geography	22
Geo-Technology	4
Regional and Economic Planning	4
History	234
History	226
Military History	8

Management Science	1078
General Management	406
Accounting	229
Finance and Accounting	1
Environmental and Energy	35
Finance	129
Global Management	7
Information Systems Management	99
Marketing	164
Transportation	8
Mathematics	95
Music	57
Philosophy	19
Physical Education	698
Physical Education	171
Athletic Training	122
Coaching	33
Exercise Science	159
Motor Development	103
Recreation	31
PE Cert N-9	24
PE Cert 5-12	55
Physics	12
Physics	11
Computer Electronics	1
Political Science	135
Political Science	98
International Affairs	12
Legal Studies	24
American Politics	1
Psychology	865
Psychology	817
Industrial-Personnel	25
Medical Psychology	23
Social Work	225
Sociology	400
Sociology	201
Criminology	195
Third World Studies	4
Spanish	54
Special Education and Communication Disorders	351
Special Education	189
Communication Disorders	162
Undeclared	628

Note: Includes 1029 undergraduate students who declare a double major

This is Bridgewater State College

Graduate Studies

Post-Baccalaureate Certification Programs

Counseling	7
Early Childhood Education	24
Elementary Education	112
Health	12
Library Media	0
Middle School/High School	111
Physical Education	13
Special Education	76
Total - Post-Baccalaureate Certification	355

Master's Degrees

Biology	8
Chemistry	1
Computer Science	18
Counseling	139
Creative Arts	5
Early Childhood Education	24
Educational Leadership	33
Elementary Education	77
English	24
Health Education	2
Health Promotion	23
History	12
Library Media	28
Mathematics	4
Physical Education	11
Psychology	44
Public Administration	15
Reading	39
School Librarian	2
Social Studies	4
Special Education	81
Speech Communication	6
Total - Master's	600

Certificate of Advanced Graduate Study

Education	77
Counseling	2
Total - CAGS	79

Certificate Programs

Undergraduate Certificate Programs

Accounting	7
Computer Science	1
Paralegal Studies	9
Marketing	2
Public Sector Management	1
Total - Undergraduate Certificate Programs	20

Graduate Certificate Programs

Accounting	2
Operations Management	1
Information Systems	1
Geotechnology	1
Total - Graduate Certificate Programs	5

Non-Matriculated

Undergraduate	640
Graduate	524

NOTE: Data above reflect 1029 undergraduate students pursuing double majors.

Six-year graduation rate (1990 cohort) 52%

• Tuition and Fees (1998-1999 academic year):

Full-time undergraduate students who are Massachusetts residents pay approximately \$1,150.00 per year in tuition and approximately \$2,383.40 in required fees. Students residing on campus are charged between \$2,360.00 and \$2,570.00 per year, depending on the facility occupied. Board for resident students is approximately \$1,942.00 per year. Please note that all figures are subject to change. For complete information on tuition and fees for all students, see the section of this catalog entitled *Tuition and Fees*.

Note: Students will incur all costs of collection if it is necessary to place their accounts with a collection agency. BSC is not responsible for any interest charge incurred on Visa, MasterCard, Discover or College Card accounts should a student withdraw from a course or if a class is canceled by the college.

All future payments to the college must be made by bank check, certified bank check, or money order. No personal checks will be honored.

Bridgewater State College

• Academic Programs

Undergraduate Majors: Twenty-seven undergraduate majors are currently offered. For more detailed information, see requirements listed in the appropriate department of this catalog.

ANTHROPOLOGY

(one may concentrate in):

- Cultural Anthropology
- Public Archaeology

ART

(one may concentrate in):

- Graphic Design
- Crafts
- Fine Arts

AVIATION SCIENCE

(one may concentrate in):

- Aviation Management
- Flight Training

BIOLOGY

(one may concentrate in):

- Biomedical
- Cell/Molecular
- Environmental
- General

BUSINESS - see Management

CHEMISTRY

(one may concentrate in):

- Biochemistry
- Professional Chemistry

CHEMISTRY-GEOLOGY

COMMUNICATION ARTS & SCIENCES

(one may concentrate in):

- Communication Studies
- Theatre Arts
- Teacher Certification in Theatre, Dance, and Speech

COMPUTER SCIENCE

EARLY CHILDHOOD EDUCATION

EARTH SCIENCES

(one may concentrate in):

- Environmental Geoscience
- Geology

ECONOMICS

ELEMENTARY EDUCATION

ENGLISH

(one may concentrate in):

- Writing

GEOGRAPHY

(one may concentrate in):

- Environmental Geography
- Geotechnology
- Regional and Economic Planning

HISTORY

(one may concentrate in):

- Military History

MANAGEMENT

(one may concentrate in):

- General Management
- Accounting
- Energy and Environmental Resources Management
- Finance
- Global Management
- Information Systems Management
- Marketing
- Transportation

MATHEMATICS

MUSIC

PHILOSOPHY

(one may concentrate in):

- Applied Ethics

PHYSICAL EDUCATION

(one may concentrate in):

- Athletic Training
- Coaching
- Exercise Science/Health Fitness
- Motor Development Therapy/Adapted Physical Education
- Recreation
- Teacher Certification in Physical Education (Pre-K-9)
- Teacher Certification in Physical Education (5-12)

PHYSICS

(one may concentrate in):

- Computer Electronics

POLITICAL SCIENCE

(one may concentrate in):

- American Politics
- International Affairs
- Legal Studies

PSYCHOLOGY

(one may concentrate in):

- Industrial Personnel Psychology
- Medical Psychology

SOCIAL WORK

SOCIOLOGY

(one may concentrate in):

- Criminology
- Third World Studies

SPANISH

SPECIAL EDUCATION

(one may concentrate in):

- Communication Disorders

• Graduate Programs:

Graduate degrees are offered in 12 fields. Graduate concentrations are offered in 25 areas. For complete information see the *Graduate School* section of this catalog.

Post Baccalaureate Certification

- Early Childhood Education
- Elementary Education
- Health
- Physical Education
- Secondary Education (Middle School/High School)
- Special Education

*This is Bridgewater State College***Master of Arts (M.A.)**

English
Psychology

Master of Arts in Teaching (M.A.T.)

Biology
Chemistry
Creative Arts
Earth Sciences
English
Health Education
History
Mathematics
Physical Education
Physical Sciences
Physics
Social Studies
Speech Communication and Theatre Arts

Master of Education (M.Ed.)

Counseling
Early Childhood Education
Educational Leadership
Elementary Education
Health Promotion
Instructional Technology
Library Media Studies
Reading
Special Education

Master of Public Administration (M.P.A.)

Financial and Personnel Administration
Municipal and Regional Development and Management
Public Safety Administration
Nonprofit and Human Services Administration

Master of Science (M.S.)

Computer Science
Physical Education

Certificate of Advanced Graduate Study (C.A.G.S.)

Education

Doctor of Education (Ed.D.)

Educational Leadership
*(Collaborative program with the University of
Massachusetts - Lowell)*

Certificate Programs:

Certificate Programs, listed below, are offered to high school graduates who are not matriculated in a degree program. For program requirements, and additional information, see the *Course Offering Brochure* published each semester.

Accounting
Computer Science
CPA Exam Preparation
Finance
Information Systems Management
Marketing Management
Operations Management
Public Affairs
Public Sector Management

Graduate Certificate Programs are offered in:

Coaching
Geotechnology

• The Campus

Visitors to the Bridgewater campus frequently comment on its scenic beauty. The many red brick buildings give the campus a distinctively colonial flavor, and spacious green lawns complemented by tree-lined paths are among the college's most attractive physical features.

The 30 academic and residential campus buildings include the following:

- **Boyden Hall** was constructed in 1926 and has since been renovated and reconstructed. This handsome building houses administrative offices and classrooms. The building is named for Albert Gardner Boyden (Principal 1860-1906) and his son Arthur Clarke Boyden (Principal 1906-1931, President 1931-1932). A bronze tablet inside the building is inscribed with these words: *"They gave their hearts, their minds, and their lives to this school."*
- The **Clement C. Maxwell Library** is a modern four-story building with the capacity to house 500,000 books and accommodates 2,500 people. It is named for Dr. Clement C. Maxwell, president from 1952 to 1962, who believed that a library "is the heart of the college." In addition to classrooms and seminar rooms, the library has a small auditorium, a media center and many individual study areas. An outstanding feature of the Maxwell Library is its constantly changing exhibits, reflecting many areas of contemporary and historical interest. Periodic lectures, musical programs and art exhibits are scheduled in the Library Heritage Room.

Bridgewater State College

- The **Art Center** is the oldest existing campus structure, built in 1906 as a gymnasium. Through the years it has also served as a library and office building. Today, following extensive renovation, it houses art facilities, including studios for painting and sculpture and facilities for weaving, silk screening, ceramics, and metal work.
- Opened in 1926 as the Martha Burnell Campus Laboratory School, the present **Lee F. Harrington Hall** became the Grove Street Academic Building in 1979 when a new Burnell Campus School was constructed on the east campus. The building houses classrooms and several administrative offices. In 1987 it was renamed Lee F. Harrington Hall in honor of a former academic dean at the college who went on to become president of Massachusetts Maritime Academy. It has remained a classroom building with a small number of administrative offices.
- The **John J. Kelly Gymnasium** was built in 1957. It houses athletic and recreational facilities, including a large and small gym, an olympic-size swimming pool, a weight room, faculty offices, and classrooms. The Human Performance Laboratory, where extensive cardiovascular research is carried on, is also located in this building.
- The **Marshall Conant Science Building** was opened in 1964, and is named for the school's second principal. The science building houses classrooms, laboratories, a lecture hall, and a host of modern equipment, including a Zeiss Electron Microscope and aviation flight simulators.
- The **Martha Burnell Campus School** is the college's one-story campus school wing housing 13 classrooms plus a music room, art room, gymnasium, solar greenhouse, cafeteria, and library. Approximately 285 students in grades K-6 attend the campus school. Adjoining this is the three-story **Walter and Marie Hart Hall**, where college classrooms and faculty offices for several academic departments are located.
- The **Adrian Rondileau Campus Center** is the "living room" of the campus, a multi-million dollar structure that features a three-story main building with offices for student organizations, a rathskeller, television studio, radio station, ballroom, music lounge, study areas, dining room, plus other facilities, and adjoining complexes of a 1,450-seat auditorium (with theatre production facilities that surpass many professional theaters) and a 900-seat cafeteria. The campus center contributes to the educational, cultural, and social experiences of students by providing them with an opportunity to participate in such diverse activities as minicourses, concerts, drama work shops, movies, lectures, and other programs. The campus center is named for Dr. Adrian Rondileau, president from 1962-1986 and 1988-1989.
- **Tillinghast Hall** was built in 1916 and was formerly a residence hall. Today the Financial Aid Office, the Counseling Center, Health Services, and faculty offices are located there, as well as a large dining hall for resident students.
- The **Davis Alumni Center**, the first privately funded building on the Bridgewater State College campus, is a hub of activity for students, faculty, staff, the entire Bridgewater community, and alumni. The center is home to the Office of Institutional Advancement, the Office of Alumni Relations and the Office of Development, and serves as a welcoming facility hosting a diversity of events. Students, alumni, and friends may reserve the center for workshops, meetings, and receptions — not uncommon activities for the center on any given day or night. A modern and attractive facility, the Davis Alumni Center provides a warm environment for alumni to return "home."
- The **John Joseph Moakley Center for Technological Applications** officially opened its doors on September 9, 1995. The center was constructed with a ten million dollar federal grant, the largest federal grant ever awarded to any state college in America. Ground was broken in November, 1992 and, upon vote of the college's Board of Trustees, was named in honor of U.S. Congressman John Joseph Moakley, who was instrumental in winning passage of the legislation to build the center at Bridgewater. Three stories in height, 50,000 square feet in area, the Moakley Center is one of the nation's most advanced facilities for computing and telecommunications technologies. Inside the building are a 180-seat amphitheater, a state-of-the-art television studio and teleconference room, and on each floor computer labs and electronic classrooms. There are three main missions of the Moakley Center: first, to use computing and telecommunications technologies to improve student learning in all programs at the college; second, to partner with regional school districts to find ways to use technology to improve teaching and learning at all levels; and third, to use the center's resources to assist economic development in the region and the state.

This is Bridgewater State College

- The **Samuel P. Gates House**, which is now the Admissions Center, was a gift to the college from Samuel P. Gates, a graduate of the class of 1857.
- The **Edward C. Swenson Athletic Fields** are used by a variety of student athletic teams. The football field is surrounded by a running track and there are also fields for baseball, softball, and soccer. The **Dr. Henry Rosen Memorial Tennis Courts** are located on upper campus.
- The **Catholic Center** was built in 1965 by the Archdiocese of Boston. The **Christian Fellowship House** is located adjacent to the college.
- The **Greenhouse and Stearns/McNamara Memorial Garden** are located beside Pope Hall, a student resident hall. The greenhouse was built in 1911 and the memorial garden is a living laboratory of botanical studies.
- Seven **residence halls** and one **student apartment complex** comprise the residential living accommodations at Bridgewater.

The Undergraduate Academic Experience

Introduction

Small classes, a superb faculty, the extensive resources of the Maxwell Library and the John Joseph Moakley Center for Technological Applications, modern equipment and facilities, and a supportive network of advisers and counselors are the key elements of the academic environment at Bridgewater State College.

Combined with these are a wide variety of cultural, social, athletic, and recreational activities which complement the learning process and add different dimensions to the total academic experience.

The college has a commitment to the success of its students. The faculty and staff strive to help each student achieve his or her full potential. The college's long tradition of academic excellence is built upon a foundation of challenging studies, a stimulating atmosphere, and a spirit of community and partnership. The rewards of success are both personal and professional; the friendships one makes and the opportunities for growth discovered can last a lifetime.

Recognizing that a narrow focus of learning is a serious threat to a student's economic and intellectual future, Bridgewater expects all students to pursue common patterns of study in addition to a major field of study.

Advancing technology, moving at breathtaking speed, adds infinite amounts of new information. The ability to assimilate complex ideas from a variety of sources requires fundamental knowledge in different areas of history, science, the arts, literature, language, and philosophy as well as specialized, in-depth skill in one major area. A college education should provide a person with broad information of lasting value no matter what vocation that man or woman pursues. Since studies reveal that today most people change careers as many as five times during their working lives, the importance of this foundation is obvious.

The liberal arts are the core of the Bridgewater experience. Every student, no matter what major field is selected, completes what are called the General Education Requirements (GERs). These are areas of knowledge and under-

standing that are of general significance. This exposure to broad fields of learning is a foundation for specific studies in a student's major field. Usually, most Bridgewater students complete the GERs during the first two years of college and spend the last two years in their major field of study. An important part of this emphasis—in the GER courses and in courses in the major field—involves writing and improving writing skills.

Our chief instrument of communication over time and space is language. The ability to express our ideas and react to the ideas of others is rooted in language skills. Technology has accelerated dramatically the need for people who can communicate quickly, clearly, and effectively.

No matter what his or her specialty may be, today the person who can write with confidence and skill has far more opportunity to be useful and successful than those who cannot. In survey after survey, business executives rank proficiency in communication as the most important skill an employee can possess.

We believe firmly in our obligation to prepare students for the world they will encounter and the demands and expectations they will confront.

The college has a rich and varied array of majors, minors, and program options. For the undergraduate student, there are more than 100 such possibilities to help prepare for a career.

The academic experience available to students at Bridgewater State College may be summed up in a few words:

Challenging . . . Comprehensive . . . Flexible . . . Outstanding . . . Opportunity.

The Faculty

Bridgewater State College has an outstanding faculty of men and women who take their responsibility for teaching seriously. Because most classes are small (the average class size is less than 30 students), there is an opportunity for

The Undergraduate Academic Experience

faculty and students to work closely. Many students assist faculty in research projects outside the classroom as well. Bridgewater State College professors are recognized for their expertise. 81% hold earned doctorates and many faculty members serve as consultants and advisers to corporations, banks, health organizations, school systems, and government agencies. Others are leaders in professional societies, conducting pioneering research in their respective fields.

Learning Resources

Clement C. Maxwell Library

The library now has approximately 500,000 volumes and subscribes to over 1,500 periodicals and newspapers. These are supplemented by microfilm and microfiche holdings, including ERIC, a nationwide pooling of information on education and allied social sciences, and HRAF (Human Relations Area Files), a collection of primary source materials on selected cultures and societies representing all major areas of the world.

The Library has made several recent initiatives in the area of full text networked information resources. For example, the full text of 1,000 journals of academic interest are available on the Maxwell Library Information Network. The data base is also available via the World Wide Web on workstations to the campus network giving campus-wide access. Finally, the database may be reached via "telnet" giving off-campus users full text access from home and dial up modems.

In addition to this, the Library participates in Project IDEAL from Academic Press. IDEAL provides the full text of more than 175 high-quality scholarly journals from Academic Press in image format using the World Wide Web. Images include all graphics, tables and charts as well as full text of the articles contained in the print version. Availability begins with 1996 volumes.

The library collection includes maps and government documents (United States, Massachusetts, and Canada). In addition, a wide selection of CD-ROM databases are available to the college community. Informational brochures, bibliographies, library handbooks and other handouts can be obtained from the library. Professional assistance in the use of library resources is also provided. The library has an on-line catalog and an automated circulation system. Interlibrary loan services are provided to faculty, students, and staff.

Special collections include an extensive children's collection; the Theodore Roosevelt and Horatio Alger collections (both

donated by the late Dr. Jordan Fiore, professor of history); a collection of books by Bridgewater authors; a Charles Dickens' collection; a collection of early American textbooks; and an extensive collection of Lincolniana.

The library has a 20,000 volume "Library of American Civilization" and a 6,000 volume "Library of English Literature," both on ultramicrofiche, and is a depository for Canadian government documents.

A curriculum center for teachers in training and in the field offers a large sampling of textbooks (K-12), teaching kits, standardized tests and allied materials. There is also an extensive collection of young adults' and children's books.

CART

The Center for the Advancement of Research and Teaching (CART) was established to improve the availability of peer group and institutional support for faculty and librarians to enhance their teaching performance and/or research and scholarly activity. Located on the second floor of the Moakley Center, CART has materials, periodicals, and computer equipment available to advance its purpose.

Departmental Resources

The college has extensive computer facilities for instructional purposes (open seven days a week, from early morning to late at night), and resources that range from a Zeiss Electron Microscope in the Department of Biological Sciences and an astronomy observatory in the Department of Earth Sciences and Geography to a writing laboratory offered by the Department of English.

Facilities for weaving, ceramics, sculpture, and painting are available in the Department of Art, and flight simulators are provided in the Department of Aviation Science. These and many other modern resources support the educational mission of the college and insure that Bridgewater students can learn and apply contemporary knowledge and skills.

Prospective students and their families interested in visiting the college and viewing learning resources are encouraged to contact the Office of Admissions for dates of campus visitations.

Orientation for New Students

The mission of Bridgewater's orientation program is to introduce new students and their families to the Bridgewater community. Through collaborative efforts between the divisions of Academic Affairs and Student Affairs, orientation

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provides programs that are conducive to the academic and social success of new students. The goals of orientation are to develop and coordinate programs that promote academic success, promote personal and social development, and to provide families and their students with information about services, support systems, and issues facing college students.

Orientation is divided into two different program formats. The initial program in June is a comprehensive two-day introduction to the college. The main emphasis of the June program involves placement testing, academic advising, and registration for fall classes. Students also have an opportunity to meet with faculty and staff and learn about the many resources that are available here at the college. In addition, there is also a one day concurrent parent program providing parents with information about services, support systems and resources for their students.

The second format involves a two-day program prior to the opening of classes in the fall. At this time, students are given the opportunity to meet new friends, learn the traditions of Bridgewater and receive assistance with the transition to college. Students will have the opportunity to sign up for workshops, meet with faculty and staff, and participate in small group experiences that are designed to foster relationships and provide them with information to assist them with their first year educational experience.

The Academic Advising Center

Several years ago Bridgewater State College embarked on a bold new program to help freshmen students adjust to the college environment. The program, which has since drawn considerable comment in professional journals and interest from other schools, is based on our belief that the transition from high school is a complex one, demanding as much individual attention as possible.

Today the Haughey Academic Advising Center is solidly established, occupying a suite of offices in the Maxwell Library. Volunteers from the full-time faculty, plus administrators experienced in helping freshmen, staff the center. There is always a professional on hand to deal with problems on an "immediate-need-basis".

The center is a home base for all freshmen throughout their first year of college and for all students who have yet to declare their major. During orientation (see Orientation for New Students) freshmen are introduced to the center's staff and are made familiar with the resources there. Once the year begins, every freshman will make several visits to the

center, where the staff will review his or her progress on an individual basis and suggest special help if necessary. All freshmen students find these conversations beneficial since the staff is able to answer questions that arise during the freshmen year. During the interviews, each student's record is reviewed, discussed, and recommendations for future course selection are shared by the student and the staff.

In cases where a student may be helped by participating in the college's "Enrichment Program" referrals are made by the center's staff. Located in the center are the Reading Laboratory, Mathematics Laboratory, the Writing Center and the Learning Disabilities specialist's office.

Academic advising is an important part of the college's program. Each student is assigned an academic adviser who is a member of the college faculty or professional staff who meets frequently with the student to discuss program planning. If there are any problems or concerns, the adviser can help the student solve them.

Enrichment Program

An "Enrichment Program" is available to help strengthen those skills most essential to effective learning both in college and throughout life.

The program is based on the college's commitment to provide students with every opportunity to build upon strengths they have while correcting any deficiencies. This assistance is provided through specialized courses in English, mathematics, and reading, and through resources such as the Reading Laboratory, the Writing Center, and the Mathematics Laboratory. Tutorial assistance is also provided.

Students needing assistance in any of these areas may be referred by the college faculty or staff. A student may also request special help which the college may provide.

Courses—Students may enroll in the following courses through regular registration procedures. Please see the *Introductory College Skills* section of this catalog for complete descriptions of these courses.

***FS 100 Introductory College Skills: Intrusive Advising** — A specialized learning/advising program for freshmen offered by the Academic Advising Center and conducted in a small group setting. Students who wish further information about this course should contact the Academic Advising Center.

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***FS 101 Introductory College Skills: Writing** — The course will consist of an intensive review of basic communication skills, chiefly those of reading and writing. Students who wish further information about this course should consult with the chairperson of the English Department or the Academic Advising Center.

***FS 102 Introductory College Skills: Mathematics** — Fundamental principles of algebra and geometry. Students who wish further information about this course should consult with the chairperson of the Department of Mathematics and Computer Science or, the Mathematics Laboratory director or the director of the Academic Advising Center.

**The credit earned in these particular courses may not be used to satisfy General Education Requirements, nor may it be applied toward the minimum number of credits required for graduation in any major.*

Laboratories — Students may enroll in the following laboratory programs by consulting with the directors of the program.

Mathematics Laboratory — The Mathematics Laboratory provides individualized instruction in a laboratory setting with peer tutoring and a variety of resources. Student participation in the Mathematics Laboratory may be voluntary or by referral.

Reading Laboratory — The college Reading Laboratory is available to all students who wish to utilize the services of the laboratory for the development of their own skills. Students interested in the services of the laboratory may contact the college Reading Laboratory, Maxwell Library.

Writing Laboratory — The Writing Center at Bridgewater State College offers the student an opportunity for individualized instruction in writing. Student participation at the Writing Center may be voluntary or by referral to the director of the Writing Center.

Honors Program

The Honors Program at Bridgewater encourages gifted and highly motivated students to reach their highest potential through critical thinking, scholarship, and research. Small classes and close student-faculty relations provide for the vigorous and thorough exchange of ideas, while the program as a whole attempts to create an atmosphere fostering intellectual, artistic, and academic achievement.

The program does **not** require students to take on additional

coursework beyond the 120 credit hours necessary for graduation; instead, students earn honors credits by taking honors sections of regular courses and/or honors colloquia during their freshman and sophomore years, by completing honors work in certain 300 or 400 level courses during their junior and senior years, and by researching and writing an honors thesis in their senior year.

For all honors work completed with a grade of A or B, students receive honors credit on their transcripts, and those who complete the program receive an honors degree—a goal worth serious effort at a time of strong competition for career and graduate opportunities. For further details on the program consult the “Honors Program” section of this catalog under *Undergraduate Academic Programs*.

Students in all majors are eligible to graduate with honors (*cum laude*, *magna cum laude*, *summa cum laude*) if their grades meet the requirements stipulated for each category; see the “Graduation with Honors” section of this catalog under *Undergraduate Academic Policies* for details.

The Dean’s List is published by the college at the end of each academic semester.

Internships

Many academic departments at Bridgewater offer students the opportunity for internships. These are usually off-campus in businesses, agencies, schools, hospitals, or other professional settings where students can work side-by-side with experienced professionals, earning academic credit and gaining valuable training and career background.

Many students have found internships extremely valuable for their professional development. The opportunity to gain extensive, practical experience can often help enhance employment prospects after graduation.

Internships are generally available to students in their junior or senior year. This supervised practical experience is explained in detail in the “Internship” section of this catalog under *Undergraduate Academic Programs*.

Exchange and Study Abroad Programs

Bridgewater currently has formal student exchange agreements with Acadia University (Nova Scotia, Canada); and Manchester Metropolitan University, Crewe & Alsager Campus, in England.

In addition, students have the opportunity to study in

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Canada through the Quebec/New England Exchange at over a dozen institutions, including Bishop's University, Concordia University, the University of Laval, McGill University, the University of Montreal and the University of Sherbrooke. The Nova Scotia/New England Exchange provides exchange opportunities at thirteen institutions, including Atlantic School of Theology, University College of Cape Breton, Dalhousie University, University of King's College, Nova Scotia College of Art and Design, Nova Scotia Teachers College, and St. Francis Xavier College.

A special three-week, three-credit summer Bridgewater-at-Oxford Program focusing on Art, English literature, political science and law, and history provides students with the opportunity to participate in the distinctive features of the Oxford educational experience. In addition to lectures and course work, the program includes tours to places of interest in the Oxford area.

Students are encouraged to explore these exchange programs and other study abroad programs, especially for their sophomore and junior years. Informational brochures and directories regarding study, work and travel abroad opportunities are available in the International Programs Office, Room 106, Boyden Hall.

Directed Study

The college permits students to pursue certain of their interests through Directed Study. Such an undertaking involves independent thinking, hard work, and creativity along with the guidance and help of a faculty member. The end result should be a paper or project accepted by the faculty member working with the student.

For more information please see the "Directed Study" section of this catalog under *Undergraduate Academic Programs*.

Cultural, Social, Athletic, & Recreational Activities

Introduction

In addition to classroom instruction, Bridgewater State College offers students a full social, cultural, athletic, recreational, and religious life. Art exhibits, lectures, concerts, movies, plays, workshops, and sports events make for an active campus schedule.

Through programs sponsored by the Student Activities Office, the Student Government Association, the Program Committee, the Bridgewater State College Foundation, and other organizations, members of the college community have opportunities to attend events featuring significant public figures and internationally acclaimed performing artists. Some of the guests who have appeared at the college include political activists James and Sarah Brady, former Vice President Dan Quayle, Robert Kennedy, Jr., Dr. Ruth Westheimer, Yolanda King, the Vienna Boys' Choir, the Hartford Ballet, the Canadian Brass, the New York City Opera Company, Bobby McFerrin, Victor Borge, Magic Johnson, Neil Sedaka, and the Julliard String Quartet.

The Art building and Maxwell Library feature galleries where exhibits are displayed, and the Rondileau Campus Center offers special programs such as performances by the college Chorale Society and the Bridgewater State College Dance Company. For students who enjoy the theater, Bridgewater has much to offer. Major productions are presented by students in the theater department throughout the year and professional theater companies perform at the college frequently.

Bridgewater has a strong athletic tradition, and currently there are 22 varsity sports and a full range of intramural athletic programs. Forty percent of the student body participates in the intramural program and many other enthusiastic supporters can be found on the sidelines.

Community members keep abreast of events and programs through a variety of campus media. The student newspaper, *The Comment*, and the official college newsletter, *Bridgewater Today*, focus on news and feature stories highlighting campus life and individual achievements, and the *Commuter Connection Newsletter* provides useful information for the commuter

population. The campus radio station, WBIM, provides coverage of events plus a full range of musical and special interest programming. The college has its own Internet homepage at www.bridgew.edu, and resident students have access to a cable television local access channel offering college news and information. Additionally, the Office of Public Affairs maintains a Campus Events Line (508-697-1768), a weekly recording of campus events.

Student Activities Office

The Student Activities Office works closely with all student organizations, and provides educational, recreational, and social activities for the campus community. Students are encouraged to participate in campus organizations in order to truly take advantage of all that Bridgewater has to offer. These organizations include:

The Leadership Institute: The Leadership Institute assists students in becoming effective leaders in organizations while at Bridgewater and after graduation. The institute encourages personal growth and development through active participation in discussion, exercises, and workshops. Experts from within and without the college teach in the institute's curriculum. The institute meets during each fall semester for six weeks.

Commuter Service Center/Commuter Student Association:

A large number of Bridgewater students commute daily to the campus. Among the other services offered specifically for commuting students is the **Commuter Service Center**, located in Room 007 in the Rondileau Campus Center. The Center serves as a resource area for information particularly relevant to commuter students, including calendars of events, carpooling information, and area transit schedules. Additionally, the **Commuter Association** provides a forum for the discussion of commuter student issues. Members of the association are represented on various college committees and groups.

Student Organizations

Students are encouraged to participate in campus organizations in order to truly take advantage of all that Bridgewater

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has to offer. A list of organizations and contact names can be obtained through the Student Activities Office. Additionally, an Activities Fair is held at the beginning of each semester in order to offer students an opportunity to learn more about campus organizations.

Also available in the Student Activities Office is a meeting schedule for each club or organization.

Any questions and/or suggestions can be referred to the Student Activities Office at (508) 697-1273 or by visiting Room 109 in the Rondileau Campus Center.

Academic Clubs and Organizations

A number of organizations have been formed to support the academic pursuits of students.

Alpha Eta Rho Professional Aviation Society
American Marketing Association
Athletic Training Club
Aviation Club
Computer Science Club
Earth, Science and Geography Club
Health, Physical Education, Recreation and Dance Club (HPERD)
History Club
Media Production Club
National Student Speech, Language & Hearing Association (NSSLHA)
Philosophy Club
Physics Club
Political Science Club
Psychology Club
Public Relations Association

Greek Organizations:

There are many fraternities and sororities on campus. These organizations are social and service groups. They are an integral part of the campus community. They include:

National Fraternities

Kappa Delta Phi
Sigma Chi
Sigma Pi
Sigma Tau Gamma
Theta Chi

National Sororities

Gamma Phi Beta
Phi Sigma Sigma
Theta Phi Alpha

Independent Co-educational Fraternities

Phi Pi Delta
Tau Alpha Kappa

Fraternity/Sorority Governing Bodies

Interfraternity Council (IFC)
National Panhellenic Council (NPC)
Co-educational Fraternity Council (CFC)
Greek Advisory Board

Special Interest Organizations:

Special interest clubs and organizations serve the needs of various campus populations and enhance campus cultural education. Others serve by helping groups within the college community.

Adventure Role Playing Club
African American Society
Amnesty International
AWARE (Gay and Lesbian issues)
Canada Club
Cape Verdean Student Association
Christian Fellowship
Circle K
Classes of 99, 00, 01, 02
College Democrats
Commuter Association
Crimson Ambassadors
Habitat for Humanity
Hacky Sack Club
International Club
Jewish Student Organization
La Sociedad de Latina
Outing Club
Program Committee
Student Council for Exceptional Children
Students Unified for Nature (SUN)
Women's Center

Music, Communications Media, Drama, Debate:

If your interests lie in any of these areas, a number of organizations may be for you:

BSC Dance Company
Choral Society
The Comment - Student Newspaper
Ensemble Theater
WBIM College Radio Station
Yearbook
Forensic Debate Team

Cultural, Social, Athletic, & Recreational Activities

Departmental Honor Societies:

Several departments invite academically talented students to join nationally recognized honor societies:

Kappa Delta Pi (Education)
Omicron Delta Epsilon (Economics)
Phi Alpha, Beta Chi Chapter (Social Work)
Phi Alpha Theta (History)
Pi Mu Epsilon (Mathematics)
Pi Sigma Alpha, Pi Upsilon Chapter (Political Science)
Psi Chi (Psychology)
Sigma Gamma Epsilon, Zeta Iota Chapter (Earth Science and Geography)

Religious Life

The campus provides opportunities for formal religious study as well as individual participation in worship, bible study, and purposeful community service. The Catholic Center and Christian Fellowship contribute to our understanding and appreciation of various religious perspectives.

Varsity Athletics

Bridgewater State College currently fields 22 intercollegiate varsity sports teams. The college is a member of the National Collegiate Athletic Association (NCAA) Division III, the Eastern Collegiate Athletic Conference (ECAC), and the Massachusetts State College Athletic Conference (MASCAC).

Varsity sports include:

Baseball (men's)
Basketball (men's and women's)
Cheerleading (co-ed)
Cross-Country (men's and women's)
Field Hockey (women's)
Football (men's)
Lacrosse (women's)
Soccer (men's and women's)
Softball (women's)
Swimming and Diving (men's and women's)
Tennis (men's and women's)
Indoor and Outdoor Track and Field (men's and women's)
Volleyball (women's)
Wrestling (men's)

Please see "Intercollegiate Athletic Eligibility" section under *Undergraduate Academic Policies* for specific information on the requirements intercollegiate athletes must meet.

Intramural Recreation Program

The intramural recreation program consistently attracts a large number of participants. Active leagues made up of resident and commuter students, faculty and staff, fraternity and sorority members, and representatives of a variety of other student groups compete each semester.

The intramural program includes the following sports:

Basketball (men's and women's)
Flag Football (co-ed)
Indoor Soccer (co-ed)
Softball (co-ed)
Street Hockey (men's)
Volleyball (co-ed)
Beach Volleyball (co-ed)

For those interested in leisure activities, the department offers an annual golf tournament, aerobics, ski trips, swimming, weight-conditioning, self-defense, gymnastics and other special events for college community members.

The Recreation Council, comprised of students and advisers makes policies for the intramural program. New representatives are appointed each year. Almost all activities are free. Some activities require minimal dues or fees. Contact the intramural recreation director at the Kelly Gymnasium for information.

Club Sports Program

Club sports provide opportunities for students who desire a competitive experience, but who do not have the time to become involved in varsity athletics. Club programs include:

Rugby (men's and women's)
Water Polo (co-ed)
Karate (co-ed)
Men's Lacrosse
Ultimate Frisbee (co-ed)

Contact the sport club adviser at the Kelly Gymnasium for information.

Services to Students

Introduction

Throughout a college career, a student is faced with numerous options and decisions involving housing, finances, health, work, academic programs, post-undergraduate study, and career goals.

The Office of Student Affairs provides assistance to students in areas such as career counseling, off and on-campus housing, health services, personal counseling, social activities, advocacy for persons with disabilities, veterans programming, athletics, and study abroad. A central responsibility of every staff member is to be available to provide supportive services and relevant information.

In this section we introduce you to the key services which are available to Bridgewater State College students.

Campus Child Care Center

The Children's Center provides students, faculty, and staff with high quality, affordable child care. It also serves as a model preschool program which is used as a training site and research facility by a variety of disciplines that incorporate child development and early childhood education.

The center is licensed by the State Office of Child Care Services for thirty children ages two years and nine months through five years, with limited spaces available for children ages six to eight. The Children's Center is open Monday through Friday from 7:30 AM until 5:30 PM from the beginning of the fall semester in September until the end of summer session II in August. It offers nine different enrollment plans ranging from two half-days to five full days. Enrollment priority is given to BSC students, for whom discount rates have been established. Tuition may be taken from financial aid or paid on a monthly or semester basis.

The Children's Center is accredited by the National Association for the Education of Young Children (NAEYC). The Academy awards accreditation to outstanding preschools which meet their criteria for High Quality Early Childhood Programs. Every three years, in order to maintain accreditation, the center voluntarily undergoes a comprehensive self-study and invites external review to verify its continued

compliance with NAEYC standards. For more information, please call (508) 697-1233.

Career Services

The Career Services Office helps students and alumni engage in self assessment, to obtain occupational information, to explore the full range of employment opportunities and/or graduate study, and to present themselves effectively as job candidates in today's workplace.

A variety of services are available including career counseling, internships, volunteer and full-time job listings, a placement credential file service, interest/personality testing, and assistance with job search strategies, writing resumes and interviewing. An extensive career library consisting of books, directories, videos and software is available to assist users in learning more about career fields and majors, and for locating job leads for full-time employment. In addition, the office provides FOCUS II, a computerized career guidance system, an alumni career advisory network, an annual job fair, JobTrak (a computerized job listing service) and a variety of career panels and speakers throughout the year.

The office is located on the ground floor of the Rondileau Campus Center and is open Monday-Friday 9AM to 5 PM. Summer hours may vary slightly. During the academic year the office is also open one evening a week until 7:30 PM. Check out the web site on the BSC homepage at www.bridgew.edu/depts/carplan

Counseling Center

The Counseling Center promotes the psychological health and community development of BSC students. New experiences and relationships can cultivate as well as challenge an individual's growth and development. For some, these experiences can be confusing and cause conflict. Students utilize counseling services for a variety of reasons ranging from major crises to simple dilemmas. Some specific reasons include: depression, shyness, or self-doubt; feelings of homesickness, stress, or anxiety; concerns about relationships; questions about sexuality, sexual identity, or

pregnancy; problems with eating, or alcohol or other drugs; problems with rape, assault, or harassment; concern for one's personal safety; and dissatisfaction with one's academic performance. The Counseling Center provides academic and psychological support to meet the special needs of students with psychiatric disabilities.

The staff of the Counseling Center offers short-term individual and couples counseling, group counseling, as well as consultation, assessments, and referrals. The center also offers workshops and presentations for students, organizations, and other groups on topics such as relationships, stress reduction, sexuality, gender, substance abuse, sexual assault prevention, and eating concerns.

The Counseling Center Outreach Program sponsors campus-wide prevention programs available to all students and student organizations. These include:

The **BSC Safe Zone** program – a sticker campaign that conveys a message of support to lesbians, gays, and bisexuals who are part of the college community. Any persons who choose to display the Safe Zone symbol acknowledge their role as allies to these individuals. An ally is committed to being non-judgmental, understanding, trustworthy, and supportive should anyone need help, advice, or just someone with whom to talk regarding issues of sexual orientation.

The **Mentors in Violence Prevention Program (MVP)** – consisting of two programs for male and female students to increase their awareness about rape and reduce men's sexual violence against women. MVP is a structured preventive education program to help students on campus better understand what comprises sexual violence and rape as well as to educate them as to what individuals can do to reduce the likelihood that it will occur. Specifically, MVP challenges students to use their heightened awareness to actively intervene and confront recognized instances of men's violence against women.

The Counseling Center is located in Room 024 of Tillinghast Hall and is open Monday through Friday from 8:30 AM to 4:30 PM. Evening hours are available by appointment. All services are confidential and free of charge. For more information, please call (508) 697-1331, TDD (508) 697-6116.

Dining Services

A variety of food service areas are located throughout the campus for the convenience of both day and evening students. Students may purchase meal plan tickets which

may be used in Tillinghast Hall, Shea/Durgin Hall and early in the evening at the Rondileau Campus Center Rathskeller and the Commuter Cafeteria. In addition, students may purchase discount points for use in the Commuter Cafeteria and other food service areas. Food may also be purchased on a cash basis in any of the campus food service areas during regular operating hours. Requests for special dietary needs can be accommodated. For information about services and the hours of operation, please contact the food services office in Tillinghast Hall.

- Shea/Durgin and Flynn Dining Commons - These dining halls offer a traditional board dining program.
- Campus Center Commuter Cafeteria - The cafeteria offers a wide variety of entrees, fast foods, homemade pizza, soup and salad bars, deli sandwiches, ice cream, and homemade pastries.
- Bridgewater Dining Room - The dining room is a sit-down style restaurant in the Rondileau Campus Center that offers an elaborate salad bar, and a traditional menu.
- The Rathskeller, located in the Rondileau Campus Center, offers a variety of sandwiches, appetizers, and pizza to over-21 students during the evening hours.

Declining Points Credit Card Program

This dining program is designed to save students money and reduce the need for carrying cash. This program works as follows: Money is deposited in a student's account; a student's ID is encoded with this deposit. Each time a student purchases a meal, beverage, snack, etc., the cost is debited from their account. The student's account balance will appear on the card reading terminal after each purchase. Students may use this debit card in all dining facilities on the campus, including the Bridgewater Dining Room, the Rathskeller and the Dunkin' Donuts on Burrill Avenue.

Disability Services

In compliance with section 504 of the Federal Rehabilitation Act of 1973, and the Americans with Disabilities Act, Bridgewater State College is committed to making its facilities, services and programs accessible to all students.

Through the use of reasonable accommodations, Disability Services assists students who are physically challenged, mentally challenged, or learning disabled to obtain the services they need to access a quality education. This is done in the following ways: assisting with course registration procedures and accessibility to classrooms; locating readers, notetakers, interpreters, adaptive computing, accessible housing and transportation; assisting in acquiring reasonable

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accommodations from college faculty and staff; and providing information about the laws, regulations and rights as they pertain to students with disabilities.

All students with disabilities who seek services or accommodations must provide proper current documentation of their disabilities and discuss their learning requirements with the staff and their instructors well in advance of the academic year so that appropriate assistance and consideration may be given. Disability Services will assist in all reasonably possible ways to provide access to opportunities for a quality educational experience. Students are urged to visit the office, located in Room 106, Boyden Hall, if they have any questions, need assistance, or have suggestions. Appointments may be scheduled by calling (508) 697-1276 or (508) 697-1384 TTD.

Student support groups provide peer support for students with disabilities and assist with campus-wide educational activities designed to inform and challenge attitudes.

Health Services

The Office of Health Services is the medical care center of the college. Any fee-paying student, whether undergraduate or graduate, full – or part-time, is eligible to use Health Services at no additional cost (not including the cost of prescriptions and laboratory tests not performed by Health Services; these costs must be borne by the student).

The office provides a broad range of specialty clinics and medical services, including routine laboratory procedures. Treatment may be received on a walk-in basis or by appointment. A physician, nurse practitioner and registered nurses are on duty during scheduled hours.

By state law, all full-time undergraduate students are required to have a record of a completed physical examination, with immunizations indicated, on file at the Office of Health Services prior to the start of classes. Full-time graduate students are required to have a record of immunizations on file. Medical record forms may be obtained from the Office of Health Services.

In addition, each institution of higher education is required to ensure that all students enrolled at least 75% of full-time are enrolled in a qualifying student health insurance plan offered by the institution or another health insurance program with comparable coverage. Participation in an uncompensated care pool program may not be used as the basis for requesting an insurance waiver.

Further, all international students participating in the Manchester Metropolitan University and Quebec and Nova Scotia/New England exchange programs and other students and faculty who are at Bridgewater under J-1 visas must have:

1. Medical benefits of \$50,000 per accident or illness
2. \$7,500 of "repatriation" coverage
3. \$10,000 for "evacuation" coverage to send students/faculty to hospitals in their home country
4. Deductibles that do not exceed \$500

Failure to comply with the preceding health insurance stipulations will result in cancellation of your classes and you will no longer be enrolled as a student at Bridgewater State College.

The college insurance plan provides 24-hour coverage anywhere in the world during the enrollment period. Undergraduates carrying a minimum of nine credits are eligible to enroll. Graduate students must carry seven credits. When an insured enters the armed forces, the unearned pro rata premium will be refunded to the insured. Refunds for any other reason are not available.

The spouse and/or child(ren) of an insured student may purchase insurance by completing the dependent enrollment form.

Peer Education Drug Prevention Program

Entering its 8th year, McADOC (Media Campaign Addressing Drugs on Campus) is the Bridgewater State College peer education program focused on alcohol and other drugs. The peer educators are selected through an application and interview process. The McADOC peer educators comprise two groups; the production team and the promotion team.

Each semester, the peer educators on the production team create specialized 30-second video public service announcements. The students script, film and edit the PSAs with guidance from the staff. The PSAs are shown on campus at various events and on the BSC cable station. The peer educators on the promotion team create ongoing campus-wide educational campaigns. They sponsor various events including Alcohol Awareness Week, the Great American Smokeout, Sexual Responsibility Awareness Week and Safe Holiday Break Weeks. The peers also conduct alcohol and drug education presentations in the residence halls.

For more information about how you can get involved as a McADOC peer educator, contact Ann M. Doyle, Outreach Education Coordinator, Alcohol/Drug Program, at (508) 697-1252, extension 2743.

AIDS TASK FORCE

The AIDS TASK FORCE was formed in 1989 for the purpose of coordinating AIDS education on campus and recommending and administering guidelines and policies for Bridgewater State College. The committee is chaired by a health services staff member and is comprised of representatives from the faculty, administration, and the student body.

The goals of the Task Force are to communicate accurate, up-to-date information about HIV/AIDS prevention to students, faculty and staff. Educational programs, including a Candlelight Walk for World AIDS Day and an AIDS Awareness Week in the spring are just a few of the activities we do to broaden awareness about HIV disease. Videos, speakers, theater productions, and small group discussions foster understanding and compassion for those affected by HIV/AIDS.

The Task Force is open to any person who is interested in AIDS Awareness programs.

International and Exchange Programs Office

Prospective foreign students are encouraged to contact the college Office of Admissions and the Graduate School (see *Undergraduate Admissions* and *Graduate School* sections of this catalog) to begin the application process. The Office of International Programs in Boyden Hall is responsible for the on-going orientation of international students and for providing information relative to immigration, insurance, housing, academic support services, employment and other matters. English as a Second Language instruction is provided by the Department of Foreign Languages (see *Department of Foreign Languages* section of this catalog for more information).

Students interested in studying or traveling abroad are encouraged to investigate the opportunities available through the International Programs Office. Student educational exchange programs have been established between Bridgewater and a number of colleges and universities in Canada and with Manchester Metropolitan University, Crewe & Alsager campus in England. The college also sponsors a three-week summer study program at Oxford University. In addition, students may spend up to one year studying at another college or university in the United States through the National Student Exchange.

Students may also wish to utilize the growing resource library in the Career Services Office in the Rondileau Campus Center, where a number of informational brochures on working and traveling abroad are available.

Multicultural Affairs

The Office of Multicultural Affairs (OMA) provides a student-centered approach to services for minority students. It is also responsible for providing advising, leadership, and training for three ethnic organizations and directing the *Leadership, Education, and Academic Development (L.E.A.D.) Program* – a collaborative between Bridgewater State College, Brockton High School, and MY TURN, Inc. The OMA supports and promotes an appreciation of racial and ethnic diversity among all members of the campus community.

The OMA provides an administrative umbrella for three ethnic organizations: the *African-American Society*; *La Sociedad de Latina*; and the *Cape Verdean Student Association*. These organizations allow for specific cultural expressions, the opportunity to learn about others, as well as contribute to the diversity of Bridgewater State College. Even though these organizations focus on specific cultures and ethnic groups, membership is open to any student at BSC.

The *African-American Society*, informally known as “*Afro-Am*,” is the oldest ethnically-based student club at Bridgewater State College. Founded on April 8, 1970, the purpose of *Afro-Am*, as defined by its constitution, is to:

- Promote black consciousness and black identity among all black people, especially at Bridgewater State College.
- Develop, maintain, and ensure the appropriate links with neighboring black communities.
- Establish and execute, in cooperation with members of their communities, community self-help projects,
- To maintain, where necessary, contact with any organization working toward the social, cultural, economic, and political improvement of black people.

The *African-American Society* was the 1996 recipient of the *Dean's Prize Award* and the 1997 recipient of the *Organization of the Year Award*, presented at the *1st Annual Student Activities Awards Program*.

La Sociedad de Latina, formerly known as the *Club Latino*, was founded in 1993, with the purpose of promoting unity and cultural awareness, and to recognize all Hispanic heritage. *La Sociedad de Latina* was the recipient of the *Most Improved Organization Award* at the *1st Annual Student Activities Awards Program*.

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The *Cape Verdean Student Association* was also recognized by Student Activities and the Student Government Association at the *1st Annual Student Activities Awards Program*, receiving the *Best New Organization Award*. The purpose of the *Cape Verdean Student Association* is to unite all Cape Verdean students at Bridgewater State College and to educate all other students, faculty, and staff about Cape Verdean culture and heritage.

The L.E.A.D. Program is designed to encourage high school students who may not be planning to attend college, but have the potential to do so. The program provides these students with focused support; academic advising; social, cultural, and collegiate experiences; career counseling; leadership training; and mentoring by a Bridgewater State College student.

The OMA coordinates and sponsors cultural and social activities throughout the year that promote an appreciation of racial and ethnic diversity, e.g. Latino Heritage Month; Native American Heritage Month; Annual Kwanzaa Celebration; Black History Month; and Asian Pacific American Month.

Transportation

The Bridgewater State College Transit Department provides campus-wide bus service, Monday through Friday from 7 AM to 8 PM. The department also provides three daily runs to Brockton (K-Mart plaza).

In addition, the department offers transportation for athletic trips, special trips for student groups, and alumni trips. There is a driver fee for these trips. All special transportation services are arranged through the transportation coordinator at extension 2094.

The Campus Police Department offers a safety escort service: Two safety escort vans provide safe on-call transportation during the late evening and early morning hours.

Old Colony commuter rail service is available between the campus (Lower Great Hill parking lot) and Boston. Fares and schedules are available on the Internet at www.mbta.com.

Commuting students are also encouraged to utilize the "ride board" in the Commuter Service Center for ride sharing with other students.

Veterans' Affairs

The Veterans' Affairs Office provides information on current Veterans Educational Assistance programs, counseling, educational guidance, and assistance in obtaining work-study placements. The office is also responsible for maintaining veterans' benefit records and for submitting necessary documentation for initial enrollment and continuing eligibility benefits.

Students who may be eligible for educational benefits include students who are enrolled in day or evening classes, either full- or part-time and are veterans of World War II, Korean, Vietnam and post-Vietnam eras; men and women in the Reserves or National Guard; husbands, wives, widows, widowers and children of veterans whose death or permanent and total disabilities were service-connected; service-connected disabled veterans, dependents of servicemen missing in action or prisoners of war for more than 90 days.

For information concerning the Veterans' Educational Assistance programs, the National Guard and selective reserve programs, or the state tuition waiver program, please contact the Veterans' Affairs Office, Financial Aid Office, Tillinghast Hall, or call or visit between the hours of 8:30 AM and 5 PM, Monday through Friday. Telephone (508) 697-1341.

College Events & Special Programs

Introduction

What are the special characteristics of campus life that truly distinguish Bridgewater State College? There are literally hundreds of interesting programs, projects, and events at the college throughout each year. This section presents a brief overview of some of these, which together impart a sense of a vibrant campus, an active student body and faculty, and Bridgewater's twin commitment to academic excellence and public service.

On the following pages we are pleased to share with you these selected samples of academic, cultural, and social activities and programs, for they reflect the continuing traditions of which we are most proud.

Special note: The following selected events, projects, and programs are presented in alphabetical order. These are intended to be a representative sampling of the many different activities and programs which are sponsored each year by the students, faculty, staff, and alumni of the college.

Alumni Weekend

An annual event of the Bridgewater Alumni Association, Alumni Weekend brings together graduates of all ages and majors to celebrate returning to Bridgewater State College. The weekend, which is centered around nostalgia and tradition, features class reunions, the Alumni Association's annual meeting, the presentation of major awards, a Daisy Chain Parade, and more.

Archaeological Excavations

The Department of Sociology and Anthropology conducts a vigorous archaeology program with field excavations of prehistoric and historic sites throughout New England. Excavations are currently in progress in eastern Massachusetts. Both undergraduate and graduate students participate in this field work.

Award Programs

The college publicly recognizes the academic and co-

curricular achievements of undergraduate students through a variety of programs held throughout the year. All students who make the dean's list receive a letter of commendation and freshmen students are invited to the Awards in Excellence Program. Other students recognized at that program include the McNair Scholars, the Presidential Scholars and the recipients of the Who's Who Among Students in American Universities and Colleges designation.

At the college Honor's Day and Alumni Association Student Recognition Program, undergraduate students are presented with awards and scholarships sponsored by academic and administrative departments, student and community organizations, alumni, and friends of the college.

Student leadership, involvement and achievement in campus and community organizations is recognized through such activities as the Leadership Institute, the Residential Life and Housing Honorary, and the Athletic Banquet.

Canadian Studies

Bridgewater State College has one of the oldest Canadian Studies programs in the northeast. The program is interdisciplinary in nature involving the academic Departments of History, Music, Management, English, Sociology, Political Science, Art, Economics, and Earth Science. The college has a reciprocal relationship with Canadian universities in the provinces of Nova Scotia and Quebec. The government of Canada has recognized Bridgewater as an official depository of Canadian government documents because of the college's role in Canadian Studies.

Children's Physical Developmental Clinic

The Children's Physical Developmental Clinic is a unique program for students which fosters professional development and community service. The clinic, which is the only one of its kind in New England, seeks to improve the physical and motor development as well as the self-esteem of 75 children with disabilities from 42 communities in Massachusetts and Rhode Island.

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The clinic is the largest student group on campus with over 120 student clinicians representing 12 majors. The clinic program affords students the opportunity to transfer the theory of their major area of study to a practical setting. The experience also enables students to learn more about the techniques and strategies of working with children diagnosed with various disabilities.

In 1985, the clinic was the recipient of the Commonwealth's highest award for public service, the "Manuel Carballo Governor's Award for Excellence in Public Service".

Children's Theatre

The Children's Theatre at Bridgewater State College began in 1969 and since that time, has been seen and enjoyed by more than 150,000 area children. Its mission is to provide a positive and fun learning experience for children attending a live performance. Since its inception, the Children's Theatre has produced over thirty shows in as many years. The BSC Children's Theatre provides the best in children's theatre, using its own talented student actors and occasionally sponsoring professional touring companies. Since 1995 the Children's theatre has undertaken to adapt the works of prominent children's authors and to create original scripts. As a result, in the past few years, musical plays based on the works of Lewis Carroll, Mary Mapes Dodge, L. Frank Baum, Louisa May Alcott and Rudyard Kipling have been created. These fun and colorful productions based on children's classics will take children on an amazing journey and introduce them to many characters they have never met before. That is why "the BSC Children's Theater is where the library comes to life."

Commencement

Commencement marks the culmination of the academic experience — a colorful event mixing happiness with nostalgia. At commencement each year honors are announced, diplomas presented, and proud family members share in the happiness of the graduates. Two commencement ceremonies are held, one in the spring and the second in the winter for students who complete their course work during the previous summer or fall sessions.

Convocation

Early in the fall, faculty, staff and members of the senior class convene to celebrate the formal opening of the academic year. It is customary to invite an outstanding graduate of the college to deliver the convocation address.

Family Day

Family Day is held in the fall each year, for the parents and families of undergraduate students. Activities are planned to give parents and other family members an opportunity to meet with members of the staff, attend information seminars and panel discussions, enjoy exhibits and performances and tour the campus. Families will receive mailings during the summer detailing the activities for Family Day. For more information call (508) 697-1273.

Hall of Black Achievement

The Hall of Black Achievement (HOBA), a project of Bridgewater State College, sponsors an annual heritage celebration in February. Each year two historic figures are inducted in the hall in recognition of their significant achievements and contributions. Additionally, a living individual is invited to accept the Mary Hudson Onley Award in honor of its namesake, the first black graduate of Bridgewater State College. Awards are also presented to selected Massachusetts state college student achievers at the annual celebration.

The Hall of Black Achievement maintains an exhibit of portraits of historical figures inducted into the Hall and works with the Bridgewater State College community to celebrate the contributions of persons of color to our society.

Homecoming

As the programming highlight of each fall, Homecoming Weekend provides a major series of events open to the college community. Alumni and parents join with current students at the homecoming football game and other activities. The Athletic Hall of Fame, reunions, dinners, and other special events highlight the weekend festivities. All student organizations are invited to participate by building floats for the annual parade through the town of Bridgewater. The weekend offers a wide variety of programs designed to promote interaction between students, administrators, faculty, and alumni.

Dr. Martin Luther King, Jr. Birthday Celebration

Each year since 1988, the college has observed the birthday of Dr. Martin Luther King, Jr. with a breakfast and a program. The program involves speakers from the campus and the community who address themes to Dr. King's message of racial harmony, diversity and progress for people of all colors and backgrounds.

*College Events & Special Programs***Minority/Bilingual Student Awareness Day**

To introduce minority and bilingual students to the college experience, to encourage them to choose higher education, and to acquaint minority and bilingual students with educational opportunities at Bridgewater State College, the Office of Affirmative Action/Minority Affairs in cooperation with the Office of Admissions hosts a "Minority/Bilingual Student Awareness Day" each year. Minority and bilingual students from throughout southeastern Massachusetts are invited to spend a day on campus meeting with students and faculty and participating in special information sessions to learn more about Bridgewater. The fourteenth consecutive annual Student Awareness Day was held in 1997.

Residence Life & Housing

Residence Life

Since 30 percent of our students live on the campus, Bridgewater State College has a commitment to make residence halls much more than just a place to live while going to school. Getting a college education here includes not only classroom learning, but also becoming part of a community. Residence halls at Bridgewater may be single gender or co-educational halls and offer singles, doubles, triples, quadruples, suites and apartments. No family housing units are available. Approximately 1,000 undergraduate students live on campus. The seven residence halls and one student apartment complex comprise the on-campus housing facilities:

- **Shea Hall** is named for former dean of students, Dr. Ellen M. Shea, and **Durgin Hall** is named for former professor Dr. George Durgin. Each accommodates 325 male and female students. The residence hall also has a dining hall for resident students.
- **Scott Hall** is named for former President Zenos Scott, and houses 145 male residents.
- **Woodward Hall**, named for Eliza Bond Woodward, class of 1857, who was the first female member of the school's faculty (1857-1887), accommodates 240 women.
- **Pope Hall**, named for former dean of women, S. Elizabeth Pope, houses 160 women.
- **The Great Hill Student Apartments**, located near Shea/Durgin Hall, house 200 male and female students. Each apartment has four single rooms and one double/triple room, a common living area, and complete kitchen facilities.
- **DiNardo Hall** is named for Dr. V. James DiNardo, former executive vice president of the college and **Miles Hall** is named for Attorney Frankland W. L. Miles, former chairman of the board of trustees of the Massachusetts State College Building Authority. Each hall houses approximately 200 male and female students in two-bedroom suites with a shared common living room.

At present, applications for residence hall placement exceed the openings generally available, and assignments are based on the total evaluation of the candidate, including the distance from one's permanent place of residence and academic standing. Students who are not immediately granted residence are placed on a waiting list. Further placements are made from this list as space becomes available. A certain number of spaces each year are reserved for freshmen and transfer students. Admission to housing is granted through the Office of Admissions as part of the admissions decision.

Each applicant must pay a room reservation deposit following notification of acceptance to a residence hall and sign an occupancy agreement. This deposit will be credited to the student's account at the end of the spring semester if the student remains in housing for the full academic year. The deposit is refundable, only if the college refuses occupancy or if the student notifies RLH prior to July 1st that they will not require on-campus housing.

Students who are assigned to residences are required to pay a \$50.00 "Residence Hall Security Deposit". Damages specifically attributed to an individual student or an identifiable group of students are billed at the time of the assessment of damages, not deducted from the security deposit.

Off-Campus Housing

It should be noted that in many instances, the college is not able to house every student who wishes to live on campus. Therefore, some students elect to live off-campus. Accommodations off-campus include apartments, houses, or rooms within private homes close to the college, thus allowing students to make full use of campus facilities including dining halls (off-campus students may purchase the same meal plan as resident students), the library, gymnasium, and the campus center.

The Office of Residence Life and Housing maintains a list of available off-campus housing and assists students seeking such accommodations. This list is also available in the Office of Student Affairs and the Commuter Service Center.

Undergraduate Admissions

For information about admission to graduate programs, please consult the *Graduate School* section of this catalog.

Bridgewater State College seeks to admit students who give evidence of intellectual capacity, motivation, character, and who have a record of scholastic achievement. An effort is made to attract candidates of diverse academic, economic, racial, religious, and geographic backgrounds. The admission requirements and procedures are designed to assist the college to select a freshman class from those applicants who can benefit from the educational opportunities at Bridgewater State College.

Bridgewater State College does not discriminate on the basis of race, sex, sexual orientation, color, religion, age, or national or ethnic origin. In addition, no otherwise qualified handicapped applicant shall, solely by reason of handicap, be excluded from admission.

Freshman Admissions Requirements

Application Form

Each candidate should submit the Bridgewater State College application. The form, aside from collecting biographical data, allows the candidate to provide additional information concerning their academic and extra-curricular interests. The college will also accept the Common Application as well as electronically formatted applications such as EXPAN and College Link. In September, 1998 the application will also be available on the college's web site, <http://www.bridgew.edu>

High School Record

The primary emphasis in evaluating a candidate for admission is placed on the overall performance of the applicant in secondary school. The strength of the applicant's curriculum, grades, weighted grade point average, and class rank as well as the level of competition in the applicant's high school are taken into consideration.

Candidates for admission should complete a secondary school course of study, or equivalent preparation, which is compatible with the goals and objectives of the college. The secondary program should include the following college

preparatory subjects:

English (a)	4 units
Mathematics (b)	3 units
Science (c)	3 units
History/Social Science (d)	2 units
Foreign Language (e)	2 units
Elective Units (f)	2 units
Related Courses (g)	4 units

- These must be college preparatory courses in composition and literature which include the development of reading, writing and comprehension skills.
- These should be college preparatory courses in such subjects as algebra, geometry, trigonometry, elementary functions and mathematical analysis. A fourth year of mathematics, usually calculus, is strongly recommended for students who plan to enter fields such as computer science, management science, mathematics, pre-engineering or the sciences.
- At least two of these college preparatory courses should include laboratory work.
- This requirement should include one year of United States history and government.
- Students are encouraged to elect a third year of foreign language study.
- Students should choose from additional college preparatory courses in English, mathematics, computer science, foreign language, natural and physical science, visual and performing arts, and humanities.
- Students are encouraged to elect courses that are consistent with their personal, educational and career goals. These courses may include, but are certainly not limited to, such offerings as computer science, business, communications, psychology and sociology.

Students graduating from vocational-technical high schools may substitute vocational-technical vocabulary coursework for the foreign language requirement even if foreign language courses are offered in their high schools. Two vocational-technical courses may be used to fulfill the two required electives.

Bridgewater State College supports the efforts of secondary school officials and governing bodies to have their schools

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achieve regional accredited status to provide a reliable assurance of the quality of educational preparation of its applicants for admission. The college is also careful to consider the characteristics of each candidate's school and community and sets no limit on the number of applicants admitted from an individual secondary school.

Standardized Test Scores

Candidates for admission to the freshman class must submit the results of the Scholastic Assessment Test (SAT I) or the ACT. (The only exceptions are footnoted below)

For evaluation according to the provisions of Chapter 344, students with learning disabilities are expected to submit verification from their guidance office. In most cases, a copy of the student's current Individualized Educational Plan (IEP) is the appropriate verifying document. More specific documentation may be required for academic advising and special services when students enroll.

***Chapter 344, Section 19 of the 1983 Acts and Resolves of the Commonwealth of Massachusetts states that: "No resident of the Commonwealth who has been diagnosed as being developmentally disabled, including but not limited to, having dyslexia or other specific language disabilities, by any evaluation procedure prescribed by chapter seventy-one B, or equivalent testing, shall be required to take any standardized college entrance aptitude test to gain admittance to any public institution of higher education in the Commonwealth. Admission shall be determined by all other relevant factors excluding standardized achievement testing."*

****Candidates who graduated from high school three or more years prior to their planned entrance date are exempt from the standardized testing requirement.*

Students should fulfill the standardization testing requirements no later than January of their senior year. Candidates submitting scores taken during their junior year should have those score reports forwarded directly from the Educational Testing Program (SAT I) or the American College Testing Program (ACT) during the academic year in which application is made to the college.

Extracurricular Record

Since Bridgewater seeks students who will contribute to the college in a variety of ways, other factors are considered in the admissions decision. These include demonstrated leadership, participation in extracurricular activities, motivation, maturity, and special aptitudes and talents. Because of this, letters of recommendation, and any addi-

tional supporting information a candidate wishes to submit, are welcomed and encouraged.

Interviews are not required. Throughout the year, the office encourages students to attend one of the many group information sessions we offer.

Students who fall into one of the following groups may receive special consideration for admission.

1. Candidates who have demonstrated to the Committee on Admissions non-quantitative factor(s) such as special aptitude, talent, initiative and creativity.
2. Students out of high school for three years or more. These students are best evaluated by certain non-quantitative criteria such as maturity and motivation.
3. Students whose special needs have been identified by means of assessments prescribed in Chapter 766. This group is exempt from The Standardized Testing Requirements.
4. Educationally disadvantaged students. Typically these students include those from multicultural backgrounds and/or with a primary language other than English, minorities, economically disadvantaged, from rural districts with limited course offerings, or from large urban school districts which are experiencing a net out migration of students. For these students, non-quantitative factors are especially important in evaluations.
5. Students transferring to Bridgewater State College with an associate's degree from a Massachusetts community college.
6. Students transferring to Bridgewater State College with at least 12 semester hours of advanced standing and a grade point average of at least 2.5 on a four point scale or students with 24 semester hours of transferable college credits and a 2.0 grade point average.

Note: These eligibility requirements refer only to eligibility for admission to Bridgewater State College and do not guarantee admission.

Additional information concerning admission procedures, application fees, interviews, standardized testing requirements for admission, notification date, and deferred enrollment may be found in the Admission Information booklet. Copies may be obtained from the Admissions Office, Bridgewater State College, Bridgewater, MA 02325.

Undergraduate Admissions

Decision and Notification Dates

Early Action Program

Freshman candidates may apply under the Early Action Program. Candidates need to have fulfilled the standardized testing requirements on or before the November test date and will need to have their application complete and transcripts on file in the Office of Admissions by November 16.

Early Action applicants are notified of the college's decision on their applications by mid-December. The college either (1) offers admission, (2) denies admission, or (3) defers admission and reviews the application again during the Regular Decision Program in the spring. A student offered admission under the Early Action Program has until the May 1st candidates reply date to respond to the college's offer.

Regular Decision

Freshman applicants for the fall semester must submit their completed application by March 1. Candidates are notified of the Admissions Committee's decision by April 15.

A limited number of freshmen candidates are accepted for the spring semester each year. The application deadline is December 1 and decisions are mailed by January 5.

Transfer Admissions

Bridgewater State College, with its strong emphasis on transfer student programs, welcomes qualified transfer students and encourages those students to apply.

Transfer applicants will be evaluated on the basis of their previous college work and must supply a transcript from each college attended. Transfer applicants with less than 12 semester hours of transferable credit must, in addition, submit to the college a high school transcript and the standardized testing results.

Transfer applications should be filed by April 1 for September admission or by December 1 for January admission. Whenever possible, degree credit will be granted for course work completed at other accredited institutions of higher education. A grade of C- is necessary in a course for the transfer of credit. Candidates may be required to submit a catalog from the previous college(s). 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. However, a student who has completed the general education requirements of another Massachusetts state college prior to transferring, will not be obligated to meet additional or different general education requirements at Bridgewater State College. At

least one-half of the required courses in the major field (and in the minor field) must be completed at this college.

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

Most transfer students complete at least two academic years at the college, however, if all requirements are met satisfactorily, the college will grant a baccalaureate degree with a minimum of one full year of academic work taken at the college provided that all other requirements for graduation have been met.

A student transferring from an accredited two-year institution is entitled to transfer for credit toward the bachelor's degree no more than the two years of credit contained within the Associate's Degree Program (maximum of 69 semester hours).

The number of transfers accepted by Bridgewater will be determined by vacancies in the 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.

Note: The college reserves the right to close admissions at any time.

Commonwealth Transfer Compact

For students transferring from Massachusetts community colleges to Bridgewater State College (Effective January, 1990)

I. Requirements for Transfer Compact Status

A student shall be eligible for transfer compact status if he or she has met the following requirements:

- Completed an associate's degree with a minimum of 60 hours exclusive of developmental coursework.
- Achieved a cumulative grade point average of not less than 2.0 (in a 4.0 system) at the community college awarding the degree. This is merely a minimum grade point average and by no means guarantees admission.
- Completed the following minimum general education core, exclusive of developmental coursework:

Bridgewater State College

English Composition/Writing	6 credit hours
Behavioral and Social Science	9 credit hours
Humanities and Fine Arts	9 credit hours
Natural or Physical Science	8 credit hours
Mathematics	3 credit hours

The community college from which the student is applying is responsible for identifying on the transcript of the candidate that the student has fulfilled the compact specifications.

II. Credits to be Transferred

The 35 credits in general education courses specified in section I will be applied toward the fulfillment of the Bridgewater State College general education requirements.

A minimum of 25 additional credits will be accepted as transfer credits. These credits may be transferred as free electives, toward any additional general education requirements, toward the student's major, or any combination, as Bridgewater State College deems appropriate.

Only college-level course credits consistent with the recommended standards set forth in the *Undergraduate Experience* publication are included under this compact. Credits awarded by the sending institution through CLEP, challenge examinations, and other life experience evaluations for course credit may be included when the community college certifies that a student qualifies under this compact.

III. Credits Beyond the Associate's Degree

To complete the baccalaureate degree, a student who transfers under this compact may be required to take no more than 68 additional credits unless:

- The student changes his or her program upon entering Bridgewater State College, or
- The combination of additional general education requirements, if any, and the requirements of the student's major at the receiving institution total more than 68 credits.

Under these circumstances, transfer students will be subject to the same requirements as students who began their undergraduate education at Bridgewater State College.

IV. Admission to Competitive Majors or Programs

If because of space or fiscal limitations the receiving institution does not admit all qualified applicants to a given major or program, the receiving institution will use the same criteria for applicants who are transfer students under this compact as it does for its native students.

V. Student Appeals

A student who believes that the provisions of this compact have not been applied fairly has the right to appeal.

Initially, differences of interpretation regarding the award of transfer credit shall be resolved between the student and the receiving institution. If a difference remains unresolved, the student shall present his evaluation of the situation to the institution from which the student is transferring. Representatives from the two institutions shall then have the opportunity to resolve the differences.

Absent a satisfactory resolution, differences of interpretation may be presented to the State-Wide Transfer Coordinating Committee.

Joint Admissions Program with Massachusetts Community Colleges

Effective September, 1997 Bridgewater State College will participate with the 15 Massachusetts Community Colleges in Joint Admissions Programs. Joint admissions is designed to guarantee the enrollment of students from the Community Colleges upon completion of designated transfer associate degree programs. Students must maintain a minimum 2.5 cumulative grade point average in order to maintain eligibility.

Readmission

Students who withdrew from Bridgewater State College in good standing, and who wish to be reinstated, must file an application for re-enrollment with the Office of Student Records and Registration. This process must be completed by November 1 for the spring semester and by May 1 for the fall semester. Because of enrollment constraints, students who submit applications after the November 1 and May 1 deadlines cannot be guaranteed reinstatement for the subsequent semester.

All students separated from the college for academic reasons must file the official application form with the Office of Admissions by the dates listed above. It is recommended, that students in this category present evidence of the successful completion of at least 12-15 semester hours of collegiate study at another institution of higher education. Transfer credit will be awarded according to established policy. **The grade point average achieved at separation will be resumed after readmission.** Students who have left the college for a minimum of three years may be given special consideration upon consultation with the academic vice president. Any undergraduate, matriculated student who is

Undergraduate Admissions

academically dismissed twice can only apply for readmission after a three year period.

Special Admissions Programs

PROGRESS

The Program for the Recruitment and Retention of Special Students (PROGRESS) was established to admit and provide support services to students from a minority group and/or disadvantaged background who possess both the motivation and potential necessary to achieve a college degree.

The Scholastic Assessment Test (SAT I) or ACT should be taken as it is used to assist in the placement and advising of the student. 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.

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 the financial aid office.

OUTREACH

The OUTREACH Program at Bridgewater State College was established in 1978 to assist adults who are beginning their college experience for the first time or are returning to school after a period of absence. From the initial inquiry about entering the college through graduation, the OUTREACH office is the primary contact source for all adults on campus.

During the adult student's educational career the OUTREACH program provides academic advising and academic program development, initiates programs and policies to help the adult learner enjoy success, serves as a liaison for students with faculty and administration when appropriate and is the primary agent in assisting adults with all college concerns.

International Admissions

International students who wish to apply for admission to the college should address a letter of inquiry to the Director of Admissions indicating their educational background and intended area of study. Eligible candidates will be mailed a special international student admission application and asked to submit official transcripts and credentials. Students for whom English is a second language will be required to submit an official copy of their results from the "Test of English as a Foreign Language" (TOEFL). International students should begin the application procedure no less than nine months in advance of the expected date of admission.

Please see the *Services to Students* section of this catalog for information on the international student office and other services available for international students.

New England Regional Student Program

Bridgewater State College participates in the New England Regional Student Program. The program is administered by the New England Board of Higher Education and is designed to permit qualified New England residents to study at the in-state tuition rate plus surcharge tuition in certain programs at Bridgewater State College.

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.

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. Every student must submit to the Health Service a completed Student Health History and Immunization Report Form. Documented proof of immunization against measles, mumps, rubella, tetanus and diphtheria is a mandatory part of that history. In addition, the candidate, if a teacher education program is the intended area of study, must be in good physical and mental health, free from disease, infirmity, or other defect which would render the candidate unfit for public school teaching.

Bridgewater State College

Advanced Standing

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

Advanced Placement Program

Bridgewater State College participates in the Advanced Placement Program of the College Board, providing academic credit for students qualified for advanced placement standing. Those interested take the College Board advanced placement tests and have the results submitted to Bridgewater for evaluation. Students scoring three, four or five receive placement and credit from the college.

Second Degree Option

On a limited basis, students who have previously earned a bachelor's degree may be eligible to pursue a second undergraduate degree at Bridgewater State College. Interested students are advised to contact the Office of Admissions for further information.

College-Level Examination Program (CLEP)

Bridgewater State College encourages able students to seek advanced standing through one or more of the CLEP examinations described below. Credit is awarded for scores at the 50th percentile or above.

CLEP credit may not be awarded if equivalent course work has been completed either prior to, or later than, the comparable CLEP examination. It is the student's responsibility to consult the current Bridgewater State College catalog for area or course equivalent distribution of CLEP credits.

Students may arrange to take the CLEP Examination at any of the national test centers, including Bridgewater State College. Those students interested in taking the exams at Bridgewater should contact the Office of Admissions.

There are two types of CLEP (College-Level Examination Program) Examinations: the General Examinations and the Subject Examinations. Both measure factual knowledge and understanding, as well as the ability to see relationships and apply basic principles to new problems. The examinations are not based on courses given at Bridgewater State College but on typical courses in a variety of colleges throughout the country.

General Examinations

The college requires all students to complete some study in certain fields that are deemed important for everyone, regardless of special interests or occupational goals. Such required study is called "General Education." The CLEP General Examinations provide a way to show that you have acquired some general education; the equivalent of what is given in required freshman and sophomore courses at the college.

There are five General Examinations which can be applied toward the General Education Requirements at Bridgewater State as follows:

General Examinations	Credit Allowed	Area of Course Equivalent
English Composition*	3	Writing I (EN 101)
English Composition with essay	6	Writing I and II (EN 101, 102)
Mathematics	6	Mathematics (MA 100, 105)
Natural Sciences (Biology/Physical)	6	Natural Sciences (BI 102, Physical Science elective)
Humanities	6	Humanities & Creative Arts (AH 101, EN 221)
Social Sciences/History	6	Social Sciences

*Bridgewater requires a supplementary essay to be taken at the college.

Subject Examinations

The subject examinations now offered are comparable to the final or end-of-course examinations in particular undergraduate courses. A person who has learned the subject through other means such as independent study can probably earn satisfactory scores on the corresponding CLEP examination. The following subject examinations are offered:

Composition and Credit Allowed

Literature

American Literature (EN 231, 232)	6
Analysis and Interpretation of Literature	6
English Literature (EN 221, 222)	6
Freshman English*	6

Foreign Languages

College French — Levels 1 and 2† (LF 101, 102, 151, 152)	3 - 12
College German — Levels 1 and 2† (LG 101, 102, 151, 252)	3 - 12
College Spanish — Levels 1 and 2† (LS 101, 102, 151, 252)	3 - 12

Undergraduate Admissions

Behavioral Sciences, Social Sciences and History	
American Government (PO 172)	3
American History I: Early Colonizations to 1877 (HI 221)	3
American History II: 1865 to the Present (HI 222)	3
Introductory Psychology (PY 100)	3
Human Growth and Development (PY 224)	3
Principles of Microeconomics (EC 101)	3
Principles of Macroeconomics (EC 102)	3
Introductory Sociology (SO 102)	3
Western Civilization I: Ancient Near East to 1648 (HI 111) ...	3
Western Civilization II: 1648 to the Present (HI 112)	3
Science and Mathematics	
Calculus with Elementary Functions (MA 141, 142)	6
College Algebra	3
Trigonometry	3
College Algebra — Trigonometry (MA 100)	3
General Biology (BI 100, 102)	6
General Chemistry (CH 131, 132)	6
Business	
Information Systems and Computer Applications	3
Introduction to Management (MG 130)	3
Introductory Accounting (AF 240, 241)	6
Introductory Business Law (AF 305)	3
Marketing (MG 200)	3

*Bridgewater requires a supplementary essay to be taken at the college.

+Credit decisions are adjusted on the basis of total score in relation to prior years of study.

Tuition & Fees

Application and Advance Payment Fees

A nonrefundable undergraduate application and processing fee of \$10.00 is required of all applicants. Upon acceptance, a nonrefundable advance payment of \$50.00 must be made. This advance payment is credited against tuition when the student enters the college. A \$50.00 orientation fee is also required of all admitted students in advance. Students accepted as residence hall students remit an additional \$50.00 housing deposit.

Semester Bill: Students are billed twice a year, prior to the start of each semester. Bills are sent to students at their permanent addresses. Payment **must** be made prior to the due date which will be specified on the bill.

- a. Students who have received an award letter from the Bridgewater State College Financial Aid Office may claim that amount of the award that is specifically designated for the semester. The amount must be indicated on the bill, which must be returned by the due date.
- b. Students wishing to claim credit for financial assistance from sources other than from the Bridgewater State College Financial Aid Office (outside scholarships, waivers, loans, etc.) must do so by indicating the amount of the assistance on the bill. Official documentation verifying the assistance must be enclosed with the bill, which must be returned by the due date.
- c. MasterCard, VISA, Discover, or College Card may be used for any payment, either in full or in part.

All charges are subject to change.

Tuition and Fees

Tuition and fees are payable by the mail due date. Students who register at walk-in registration must pay all tuition and fee charges in full at the time of registration. Payment must be by check or money order (payable to *Bridgewater State College*) or by MasterCard, VISA, Discover, or College Card. The following is the tuition and fee schedule. *It should be noted that this schedule is subject to change.*

Semester Tuition and Fees

Massachusetts residents - Undergraduate Credit

Tuition per credit	\$47.92
1 st 12 Semester Hours ONLY (\$575.00 max.)	
Fees per credit	\$66.15
1 st 18 Semester Hours ONLY (\$1,190.70 max.)	

Massachusetts residents - Graduate Credit

Tuition per credit	\$69.79
1 st 12 Semester Hours ONLY (\$837.50 max.)	
Fees per credit	\$66.15
1 st 18 Semester Hours ONLY (\$1,190.70 max.)	

Non-Massachusetts residents - Undergraduate Credit

Tuition per credit	\$268.75
1 st 12 Semester Hours ONLY (\$3,225.00 max.)	
Fees per credit	\$66.15
1 st 18 Semester Hours ONLY (\$1,190.70 max.)	

Non-Massachusetts residents - Graduate Credit

Tuition per credit	\$268.75
1 st 12 Semester Hours ONLY (\$3,225.00 max.)	
Fees per credit	\$66.15
1 st 18 Semester Hours ONLY (\$1,190.70 max.)	

Senior Citizen

Tuition and 1/2 fees are waived to any person 60 years of age or older. The person must pay 1/2 fees and bring proof of age to Office of Student Records and Registration to be eligible.

SGA (Student Government Association)

This fee is charged to all matriculated undergraduate students attending classes.

Less than 12 semester hours	\$12.00
12 semester hours or more	\$24.00

Other Fees

Residential Activity Fee (per semester)	\$10.00
Residence Hall Security Deposit	\$50.00
Late Registration Fee (nonrefundable)	\$25.00
Health Insurance Fee (Waivable)	\$566.00

Tuition & Fees

Parking Decal Fee (Waivable) 9 credits or less	20.00
10 credits or more	50.00
Hospitalization/Major Medical coverage for all students carrying nine credits or more is required by Massachusetts state law. A Student Accident and Sickness Brochure can be obtained from the Office of Student Accounts (508) 697-1225 or the Office of Health Services (508) 697-1252. If you are covered under a similar plan and wish to waive the coverage, you must complete the waiver card and return it to the Office of Health Services prior to payment of your bill. Failure to do so will leave an outstanding balance due on your bill.	
Spring	\$342.00
Full Year	\$566.00
Transcript Charge (per copy with 2-5 working days to process)	
On the Spot Transcript Charge	\$2.00
On the Spot Transcript Charge	\$5.00

Semester Residence Hall and Dining Charges

Room

Traditional Resident (Pope, Scott, Woodward, Shea/Durgin Halls)	\$1,180.00
Student Apartments	\$1,260.00
New Residence Hall (DiNardo/Miles)	\$1,285.00

Dining

10-Meal	\$925.66
14-Meal	\$947.19
19-Meal	\$970.87
10-Meal plus 50 points	\$969.66
14-Meal plus 50 points	\$991.19
19-Meal plus 50 points	\$1,014.87

Tuition Management Plan

In order to assist students in financing their education, the college has contracted exclusively with Tuition Management Systems. This company's plan offers a low cost, flexible system for financing educational expenses out of current income through regularly scheduled payments over a 10-month period. For information call:

Tuition Management Systems 1-800-722-4867

Refund Policy

Applicability: The refund policy applies to all full-time and part-time students enrolled in regularly scheduled classes at Bridgewater State College. This policy applies to all tuition, room, board, fees and other assessed charges (except

housing deposit, application fees and health insurance when applicable). **Charges are subject to change by the action of the Board of Higher Education.**

Notification Requirements:

All *undergraduate matriculated* (degree seeking) students who **withdraw from school** must communicate that withdrawal in writing through the **Academic Advising Center**.

All *graduate matriculated* (degree seeking) students who withdraw from school must communicate that withdrawal in writing through the **Graduate School**.

All withdrawals from courses must be communicated by the student in writing through the Office of Student Records and Registration.

Non-attendance at class does not constitute official withdrawal and will result in a failing grade. Students are responsible for all course charges except when an official withdrawal from college form is on file.

• **Bridgewater State College official refund policy for students who do not receive financial aid.**

Withdrawal on or before the 1 st day of school (official opening)	100%
Withdrawal before the beginning of the 2 nd week of school	90%
Withdrawal from the 2 nd week but before the beginning of the 3 rd week	70%
Withdrawal from the 3 rd week but before the beginning of the 4 th week	50%
There is no refund after the 3rd week.	

Withdrawals from **Summer Session** courses are pro-rated on a basis of class meetings rather than weeks.

Under a mandate from the federal government there are two separate refund policies for students who receive financial aid. These two refund policies apply to all financial aid that has been awarded by the college and may result in a decrease or cancellation of a student's financial aid.

All students (undergraduate and graduate) who receive financial aid and who withdraw from school or courses must notify, in writing, the Financial Aid Office.

Bridgewater State College

• **Bridgewater State College refund policy for first-time attendees/first-time financial aid**

Withdrawal on or before the first day of school (official opening)	100%
Withdrawal from the beginning of the second week of school	90%
Withdrawal from the 2nd week but before the beginning of the 3rd week	80%
Withdrawal from the 3rd week but before the beginning of the 4th week	80%
Withdrawal from the 4th week but before the beginning of the 5th week	70%
Withdrawal from the 5th week but before the beginning of the 6th week	60%
Withdrawal from the 6th week but before the beginning of the 7th week	60%
Withdrawal from the 7th week but before the beginning of the 8th week	50%
Withdrawal from the 8th week but before the beginning of the 9th week	40%
Withdrawal from the 9th week but before the beginning of the 10th week	40%
There is no refund after the 9th week.	

• **Bridgewater State College refund policy for financial aid recipients who are not first time attendees/first time on financial aid:**

Withdrawal on or before the 1st day of school (official opening)	100%
Withdrawal from the 2nd day of school but before the end of the 2nd week	90%
Withdrawal from the 3rd week through the end of the 4th week	50%
Withdrawal from the 5th week through the 8th week	25%
There is no refund after the 8th week.	

Note: Federal, state or institutional regulations may necessitate revision to the above refund policy.

Financial Aid

The mission of the Financial Aid Office at Bridgewater State College is to assist students and parents in financing their pursuit for higher education. The main goal of the Financial Aid Office is to ensure access for all who desire an education.

Financial aid award packages may be comprised of a combination of resources such as grant, scholarship, tuition reduction and self help programs like the Federal Ford Direct Loan Program and Federal Work Study Program. The packaging of an award offer is always dependent on the availability of funds from the state and federal governments. Awarding of funds is based on the "need" determined from the analysis derived from the Free Application for Federal Student Aid (FAFSA), or the Renewal Application.

Simply stated, need is the difference between the total expenses of attending Bridgewater State College (including not only tuition and fees, but also estimated costs of books, room, board, transportation and personal expenses) and the estimated family contribution obtained from the FAFSA analysis. For example:

$$\begin{array}{r} \text{TOTAL EXPENSES} \\ - \text{FAMILY CONTRIBUTION} \\ \hline = \text{FINANCIAL NEED} \end{array}$$

All students who wish to participate in federal, state or campus based financial aid programs must file a FAFSA or the Renewal Application in place of the FAFSA. FAFSAs may be obtained from a high school guidance office or may be picked up at the Financial Aid Office located in Tillinghast Hall. Renewal Applications should be sent by the Department of Education directly to students who have filed for aid in 1998-1999. It is anticipated that the processing of aid applications by the Department of Education may take up to six weeks. The Financial Aid Office strongly encourages students (and their families) to file early.

To receive the optimum level of consideration for all financial aid program eligibility, the student should file the FAFSA with the Department of Education by March 1, 1999

(not postmarked). Applications for financial aid are accepted after the March 1, 1999 priority date, but awards will be made on a funds available basis. Applications for students enrolling for the spring semester are accepted on a rolling basis and on a funds available basis.

Students must reapply for financial aid each year they attend the college. The same application procedure will apply. Although the amount and type of aid offered may change due to funding availability and the dictates of program guidelines, an applicant will continue to be eligible as long as financial need is demonstrated and the student maintains satisfactory academic progress. Please see the section on Satisfactory Academic Progress and Student Financial Aid.

The college has strict guidelines regarding refunds of tuition and the distribution of financial aid funds for students who withdraw from the institution. Funds will be credited to students' accounts on or before the mid-point of each semester. Please refer to the refund section in this catalog.

Financial aid is available for study abroad. Contact the Financial Aid Office for details of funds available for study abroad and application procedures.

1999 – 2000 BRIDGEWATER STATE COLLEGE — FINANCIAL AID PROGRAM SUMMARY



	RESIDENCY STATUS	ENROLLMENT LEVEL	MATRICULATION REQUIREMENTS	FINANCIAL ELIGIBILITY	GENERAL APPLICATION PROCEDURES*	1999-2000 FILING PRIORITY DATES
FEDERAL PELL GRANT	NEED NOT BE MASS. RESIDENT	MUST BE ENROLLED AT LEAST 1/4 TIME	MUST BE ACCEPTED INTO UNDERGRADUATE DEGREE PROGRAM	MUST SHOW ELIGIBILITY ACCORDING TO FAFSA NEED ANALYSIS	SUBMIT FAFSA, OR RENEWAL APPLICATION TO FEDERAL PROCESSOR	JUNE 30, 2000
FEDERAL WORK STUDY	NEED NOT BE MASS. RESIDENT	MUST BE AT LEAST HALF-TIME	MUST BE ACCEPTED INTO UNDERGRADUATE DEGREE PROGRAM	MUST SHOW NEED ACCORDING TO FAFSA NEED ANALYSIS	SUBMIT FAFSA, OR RENEWAL APPLICATION TO FEDERAL PROCESSOR	MARCH 1, 1999
FEDERAL SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT	NEED NOT BE MASS. RESIDENT	MUST BE AT LEAST HALF-TIME	MUST BE ACCEPTED INTO UNDERGRADUATE DEGREE PROGRAM	MUST SHOW NEED ACCORDING TO FAFSA NEED ANALYSIS	SUBMIT FAFSA, OR RENEWAL APPLICATION TO FEDERAL PROCESSOR	MARCH 1, 1999
B.S.C. TUITION WAIVER	MUST BE MASS. RESIDENT	MUST BE FULL-TIME	MUST BE ACCEPTED INTO UNDERGRADUATE DEGREE PROGRAM <small>Applies To State Funded Undergraduate Degree Courses Only</small>	MUST SHOW NEED ACCORDING TO FAFSA NEED ANALYSIS	SUBMIT FAFSA, OR RENEWAL APPLICATION TO FEDERAL PROCESSOR	MARCH 1, 1999
B.S.C. TUITION GRANT	MUST BE MASS. RESIDENT	MUST BE FULL-TIME	MUST BE ACCEPTED INTO UNDERGRADUATE DEGREE PROGRAM	MUST SHOW NEED ACCORDING TO FAFSA NEED ANALYSIS	SUBMIT FAFSA, OR RENEWAL APPLICATION TO FEDERAL PROCESSOR	MARCH 1, 1999
B.S.C. FEE GRANT	NEED NOT BE MASS. RESIDENT	MUST BE AT LEAST HALF-TIME	MUST BE ACCEPTED INTO UNDERGRADUATE DEGREE PROGRAM	MUST SHOW NEED ACCORDING TO FAFSA NEED ANALYSIS	SUBMIT FAFSA, OR RENEWAL APPLICATION TO FEDERAL PROCESSOR	MARCH 1, 1999
MASS. GRANT	MUST BE MASS. RESIDENT	MUST BE FULL-TIME	MUST BE ACCEPTED INTO UNDERGRADUATE DEGREE PROGRAM	MUST SHOW NEED ACCORDING TO FAFSA NEED ANALYSIS	SUBMIT FAFSA, OR RENEWAL APPLICATION TO FEDERAL PROCESSOR	MAY 1, 1999

Financial Aid

	RESIDENCY STATUS	ENROLLMENT LEVEL	MATRICULATION REQUIREMENTS	FINANCIAL ELIGIBILITY	GENERAL APPLICATION PROCEDURES*	1999-2000 FILING PRIORITY DATES
MASS. PART-TIME GRANT	MUST BE MASS. RESIDENT	MUST BE AT LEAST HALF-TIME	MUST BE ACCEPTED INTO UNDERGRADUATE DEGREE PROGRAM	MUST SHOW NEED ACCORDING TO FAFSA NEED ANALYSIS	SUBMIT FAFSA, OR RENEWAL APPLICATION TO FEDERAL PROCESSOR	ROLLING BASIS
MASS. NO INTEREST LOAN	MUST BE MASS. RESIDENT	MUST BE FULL-TIME	MUST BE ACCEPTED INTO UNDERGRADUATE DEGREE PROGRAM	MUST SHOW NEED ACCORDING TO FAFSA NEED ANALYSIS	SUBMIT FAFSA, OR RENEWAL APPLICATION TO FEDERAL PROCESSOR	ROLLING BASIS
FEDERAL PERKINS STUDENT LOAN (5% INTEREST)	NEED NOT BE MASS. RESIDENT	MUST BE AT LEAST HALF-TIME	MUST BE ACCEPTED INTO UNDERGRADUATE DEGREE PROGRAM	MUST SHOW NEED ACCORDING TO FAFSA NEED ANALYSIS	SUBMIT FAFSA, OR RENEWAL APPLICATION TO FEDERAL PROCESSOR	MARCH 1, 1999
FEDERAL FORD DIRECT SUBSIDIZED LOAN (VARIABLE INTEREST)	NEED NOT BE MASS. RESIDENT	MUST BE AT LEAST HALF-TIME	MUST BE ACCEPTED INTO UNDERGRADUATE DEGREE OR GRADUATE DEGREE OR ELIGIBLE CERTIFICATE PROGRAM	MUST SHOW NEED ACCORDING TO FAFSA NEED ANALYSIS	SUBMIT FAFSA, OR RENEWAL APPLICATION TO FEDERAL PROCESSOR AND SIGNED PROMISSORY NOTE TO FINANCIAL AID OFFICE	ROLLING BASIS
FEDERAL FORD DIRECT UNSUBSIDIZED LOAN (VARIABLE INTEREST)	NEED NOT BE MASS. RESIDENT	MUST BE AT LEAST HALF-TIME	MUST BE ACCEPTED INTO UNDERGRADUATE DEGREE OR GRADUATE DEGREE OR ELIGIBLE CERTIFICATE PROGRAM	NOT BASED ON NEED MUST FILE FAFSA TO DETERMINE SUBSIDIZED FORD ELIGIBILITY FIRST	SUBMIT FAFSA, OR RENEWAL APPLICATION TO FEDERAL PROCESSOR AND SIGNED PROMISSORY NOTE TO FINANCIAL AID OFFICE	ROLLING BASIS
FEDERAL FORD DIRECT PLUS LOAN (VARIABLE INTEREST)	NEED NOT BE MASS. RESIDENT	MUST BE AT LEAST HALF-TIME	MUST BE PARENT OF STUDENT IN UNDERGRADUATE DEGREE PROGRAM	CREDIT WORTHINESS ANNUAL LIMIT EQUALS (-) COST OF ATTENDANCE MUNUS (-) FINANCIAL AID	SUBMIT B.S.C. FEDERAL PLUS LOAN REQUEST FORM TO FINANCIAL AID OFFICE	ROLLING BASIS
MEFA LOAN (INTEREST RATE SET ANNUALLY)	NEED NOT BE MASS. RESIDENT	MUST BE AT LEAST HALF-TIME	MUST BE PARENT OR SPOUSE OF STUDENT IN UNDERGRADUATE OR GRADUATE DEGREE PROGRAM	CREDIT WORTHINESS ANNUAL LIMITS, \$1,500 TO COST OF ATTENDANCE	SUBMIT MEFA APPLICATION TO MASS EDUCATION FINANCE AUTHORITY	ROLLING BASIS

***General Application Procedures:**

- To be considered for priority consideration for all forms of financial aid, your FAFSA or Renewal Application must be received by the Federal Processor by: March 1, 1999.
- Applications received after March 1, 1999 will be reviewed and awarded on a funds available basis.
- Notification of eligibility prior to the college billing due date is not guaranteed for late applications.
- BridgeWater State College does not require an institutional application but may request tax returns and/or other documents at a later date to assure that all information is accurate.
- To qualify, a student must be a U.S. citizen or eligible non-citizen, and must also maintain satisfactory academic progress.
- To be eligible for any type of financial aid a student must be accepted into a degree or eligible certificate program.

Federal Ford Direct Subsidized Loan Limits**

Freshman	2,625	Federal Ford Direct Unsubsidized Loan Limits**
Sophomore	3,500	2,625
Junior	5,500	3,500
Senior	5,500	5,500
Graduate	8,500	5,500

** A student may not borrow more than the grade level loan limit for Federal Direct Subsidized, Federal Direct Unsubsidized, or a combination of both.

**BridgeWater State College
Financial Aid Office
(508) 697-1341**

Note: Federal, state, or institutional regulation and policies may necessitate revision in the eligibility criteria of the above financial aid programs at any time.

Bridgewater State College

Satisfactory Academic Progress and Student Financial Aid

Federal regulations require that Financial Aid recipients maintain "satisfactory academic progress" in their course of study.

To maintain satisfactory academic progress at Bridgewater State College a student must be in good academic standing or in the process of fulfilling the conditions of an academic probation. In addition, a student must successfully complete (for each academic year) a minimum percentage of the total credits necessary to earn his/her degree or certificate or demonstrate evidence of mitigating circumstances. Students who are unable to maintain satisfactory academic progress will be ineligible to receive funding through any Title IV Federal Financial Aid Program including Federal Pell Grant, Federal Perkins Loan, Federal Supplemental Educational Opportunity Grant, Federal Work-Study, Federal Direct Student and Federal Direct Parent Loan or through any of the Massachusetts Office of Student Financial Assistance Programs or the Bridgewater State College Grant Programs.

The schedule of credits needed to maintain satisfactory academic progress for each year of full-time enrollment in the baccalaureate degree program is as follows:

Years of Full-time Enrollment	1	2	3	4	5	6
Cumulative Credits Earned	20	40	60	80	100	120

According to this schedule a full-time degree candidate must accumulate 120 credits and/or earn the degree by the end of the sixth year. One-sixth of the program (20 credits) must be completed by the end of the first year, two-sixths by the end of the second year, etc. For students enrolled less than full-time the minimum cumulative credits required will be calculated on the basis of an adjusted maximum of the number of years allowed to complete the degree. For example, a half-time student (6 to 8 credit hours per semester) would be allowed a maximum of 12 years to earn his/her degree, accumulating one-twelfth/10 credits) by the end of the first year, two twelfths by the end of the second year, etc.

Averages of the various maximum time frames allowed for completion of the degree will be used when a student's enrollment level fluctuates over time. Enrollment level will be based on the number of credits attempted per semester in relation to the number of credits actually earned per semester. Zero-credit courses (**Withdrawals, Incomplete Grades, and Freshman Skills (FS) courses**) will be excluded

from the calculation of semester hours attempted. The calculations for satisfactory academic progress are made after the grades have been processed for the spring semester, and they include the student's total academic history at this college (excluding transferred credits that were earned at another institution **prior** to matriculation at Bridgewater State College).

Credit Hours Attempted	Probation QPA	Academic Warning	Separation Below This QPA
0-16	Below 2.0	2.0-2.19	1.00
17-31	Below 2.0	2.0-2.19	1.50
32-46	Below 2.0	2.0-2.19	1.65
47-61	Below 2.0	2.0-2.19	1.75
62-89	Below 2.0	2.0-2.19	1.85
90 and above	must maintain 2.00 or better		

Satisfactory progress will be reviewed on an annual basis at the conclusion of each spring semester. **Students who have not met the minimum credit requirements will be notified that they are ineligible to receive financial aid until they have earned the minimum number of credits required for their year of enrollment. All aid already awarded will be cancelled.**

Reinstatement of financial aid eligibility may be obtained in one of the following two ways:

1. Students may acquire the minimum credits and/or the QPA required for their year of enrollment by enrolling in additional courses during the summer or regular semesters;
2. An appeal of this determination on the basis of the death of a relative of the student, an injury or illness of the student, or other mitigating circumstances may be filed in writing with the Financial Aid Office.

Students appealing the decision should do so as soon as possible upon notification, whether or not financial aid was received, to ensure maximum eligibility on a funds-available basis. All appeals submitted are reviewed individually by the Satisfactory Academic Progress Review Committee, composed of the Director of Financial Aid, the Director of Student Records and Registration, and the Dean of Academic Administration. Students must submit or appeal each year that they are notified of their unsatisfactory academic progress. An appeal granted for a previous year cannot be applied to subsequent years.

Students admitted, or later identified, as physically handicapped, learning disabled, or economically or educationally disadvantaged and who do not meet Satisfactory Academic Progress Standards for financial aid purposes are encouraged to complete the appeal process.

The determination of the committee is final and the students are notified of the action taken on their appeal before the start of the next semester. **If a student's appeal is granted, that student's financial aid file will be reviewed at that time and aid will be awarded on a funds-available basis. If the student's appeal is denied, the student is not eligible to receive financial aid.**

This appeal process to determine financial aid eligibility must not be confused with the appeal process for academic dismissal from the college. Each appeal process is separate from, and independent of, the other. An appeal to the Satisfactory Academic Progress Committee will determine financial aid eligibility only. An appeal regarding academic dismissal from the college to determine eligibility for reinstatement to the college must be made to the Academic Advising Center. Academic reinstatement does not automatically guarantee renewed financial aid eligibility. The student must then contact the Financial Aid Office in order to be reconsidered for financial aid eligibility.

Student Employment

In addition to the Federal Work Study Program, Bridgewater State College provides opportunities for employment both on and off campus through the Student Employment Center located in Boyden Hall. Services of the center are open to all Bridgewater State College students regardless of financial aid status.

Alumni Scholarships

The Bridgewater Alumni Association provides scholarships and a limited number of grants-in-aid each year to currently enrolled Bridgewater undergraduate students. These individual scholarships are provided by separate trust funds, each specifying the particular criteria to be utilized in selecting a recipient for that award. Application forms are available during February each year and may be secured in the Financial Aid Office, Office of Student Affairs, Office of Alumni Relations, and the Student Activities Office.

Graduate Assistantships

A limited number of graduate assistantships are offered by the Graduate School, subject to the availability of funds, in areas associated with certain programs of the college. For details regarding graduate assistantships, see the Graduate School section of the catalog.

Other Scholarships

In order to give recognition and prestige to student achieve-

ment on campus, many academic departments, clubs, and campus organizations sponsor scholarships and monetary awards to deserving Bridgewater students. A complete listing may be found in the *Student Handbook* and further information regarding application procedures may be obtained in the Office of Student Affairs.

Army Reserve Officer Training Corps

Army ROTC offers a program which provides Bridgewater students the opportunity to graduate as officers and serve in the U.S. Army, the Army National Guard, or the U.S. Army Reserve. Army ROTC enhances a student's education by providing unique leadership and management training, along with practical experience.

Scholarships worth up to \$16,000 annually are available to students who qualify. The scholarship pays for college tuition and required educational fees, and provides a \$450 allowance for textbooks, supplies, and equipment. Each scholarship also includes a subsistence allowance of up to \$1,500 for every year the scholarship is in effect.

For further information contact Captain Don Johnson at the Department of Military Science at Stonehill College, North Easton, Massachusetts, (508) 565-1365 or Major Mary Ludd at Boston University (617) 353-4025.

Air Force Reserve Officer Training Corps

Air Force (ROTC) is an educational program designed to give men and women the opportunity to become an Air Force officer while completing a bachelor's or master's degree program. The Air Force ROTC program prepares students to assume positions of increasing responsibility and importance in the Air Force.

The Air Force offers a wide variety of career fields from which to choose. There is a wealth of opportunities to fly as a pilot, navigator, or weapons controller. In addition, we have opportunities for students of ANY MAJOR. Air Force officers start at over \$27,000 as second lieutenants after graduation, and they will make over \$42,000 after four years of service. Great benefits, a generous retirement plan, and world travel make it an even better choice.

In addition to the tremendous leadership and management training which cadets receive, they also benefit from several **scholarship programs**. *High school seniors* can apply for four- and three-year scholarships, all of which would cover full tuition at Bridgewater State College and include a \$150 stipend per month, a book allowance, and uniforms. Applications are due by December 1st of senior year.

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Freshmen and sophomores already in college can compete for two- and three-year scholarships which cover full tuition at Bridgewater State College and include a \$150 stipend per month, a book allowance, and uniforms. Those who reach junior year but have not yet received a scholarship may receive a Professional Officer Corps Incentive (POCI). These incentives are worth \$1,000 per semester for tuition and books, and come with a \$150 stipend. These are not competitive, but are based on meeting minimum Air Force ROTC requirements such as a 2.35 term GPA.

For further information contact Captain Joel Lagasse, Admissions Officer, at (617) 353-6316/4705. Classes are held at Boston University and are easily accessible using the commuter rail.

Undergraduate Academic Programs

Bachelor of Arts/Bachelor of Science

The Bachelor of Arts and Bachelor of Science Degree programs prepare students for fields of endeavor related to the following areas of study and for graduate school. It also prepares students for high school teaching if high school education is selected as a minor.

Anthropology
Art
Aviation Science
Biology
Chemistry
Chemistry-Geology
Communication Arts and Sciences
Computer Science
Earth Sciences
Economics
English
Geography
History
Management
Mathematics
Music
Philosophy
Physical Education
Physics
Political Science
Psychology
Social Work
Sociology
Spanish

The decision as to whether to award the degree of Bachelor of Arts or the degree of Bachelor of Science shall be consistent with the standards in the student's major field as determined by the major department.

In cases where students with double or dual majors are eligible for a BA, BS and/or BSE degree the student will select which major department will make the decision regarding which degree the student will be awarded.

Students are advised to consult with their department chairperson or major adviser 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.

Students seeking admission to the Aviation Science major must pass at least a Class II FAA physical for the concentration in Flight Training or a Class III FAA physical for the Aviation Management concentration.

Bachelor of Science in Education

All undergraduate and graduate students seeking professional certification must consult the section of this catalog entitled *School of Education and Allied Studies* for information pertaining to changes in the *State Regulations for the Certification of Educational Personnel* and important institutional deadlines.

The Bachelor of Science in Education is currently offered in:

Early Childhood Education
Elementary Education
Special Education

In cases where students with double or dual majors are eligible for a BA, BS and/or BSE degree the student will select which major department will make the decision regarding which degree the student will be awarded.

Major

A student must meet all requirements of the major as specified under the departmental listings. A minimum of 24 credits and a maximum of 36 credits within the major may be required by a department. The 24 to 36 credits reflect all courses taken in the major department, including those which are listed under the distribution of General Education Requirements. At least one half of the required courses in the major field (excluding cognate requirements) must be successfully completed at this college. A minimum 2.0 GPA in the major is required for graduation. The student should select a major by the end of the sophomore year.

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Double Major

In order to graduate with a double major, a student must meet all requirements of both majors sought. The student's petition to double major must be made in writing and agreed to by both departments. Official notification of the approval of a double major will be made by the Academic Advising Center. Completion of the double major will be reflected on the finalized transcript.

Students who wish to be elementary, early childhood or special education teachers, are required to select a major in elementary, early childhood or special education and a major in the liberal arts or sciences. Under state certification requirements, all teachers certified after October 1, 1994 are required to have a major in the liberal arts or sciences.

Concentration

A concentration is a unified set of courses usually composed of core requirements and of requirements particular to the chosen area of concentration. The total number of core and particular requirements must be at least 24 but not more than 36 credit hours. Cognate courses (required courses outside the major department) are not counted as part of the 36 hours. Only students selecting the major field of study may complete a concentration within that major. Concentrations are currently available in:

Anthropology

Cultural Anthropology
Public Archaeology

Art

Graphic Design
Crafts
Fine Arts

Aviation Science

Aviation Management
Flight Training

Biology

Biomedical
Cell/Molecular
Environmental
General

Chemistry

Biochemistry
Professional Chemistry

Communication Arts and Sciences

Communication Studies
Theatre Arts
Teacher Certification in Theatre, Dance and Speech

Earth Sciences

Environmental Geoscience
Geology

Elementary Education

English

Writing

Geography

Environmental Geography
Geotechnology
Regional and Economic Planning

History

Military History

Management Science

General Management
Accounting
Energy and Environmental Resources Management
Finance
Global Management
Information Systems Management
Marketing
Transportation

Philosophy

Applied Ethics

Physical Education

Athletic Training
Coaching
Exercise Science/Health Fitness
Motor Development Therapy/Adapted Physical Education
Recreation
Teacher Certification in Physical Education (Pre-K-9)
Teacher Certification in Physical Education (5-12)

Physics

Computer Electronics

Political Science

American Politics
International Affairs
Legal Studies

Undergraduate Academic Programs

Psychology

Industrial-Personnel Psychology
Medical Psychology

Sociology

Criminology
Third World Studies

Special Education

Communication Disorders

Minor

A minor is a unified set of courses chosen outside of the major field of study requiring not less than 18 nor more than 21 hours. The minor is recorded on the student's transcript. Minors may include courses from only one department or may be multidisciplinary. Students may use courses which satisfy GERs or departmental requirements to fulfill multidisciplinary minor requirements unless otherwise prohibited. At least one half of the courses required for the minor must be successfully completed at this college. Students must achieve a minimum 2.0 cumulative average in declared minors. Specific requirements for a minor are found under the departmental descriptions.

Minors are currently offered in:

American Studies
Anthropology
Art
Art History
Aviation Science
Biochemistry
Biology
Canadian Studies
Chemistry
Coaching
Communication Disorders
Communication Studies
Computer Science
Dance
Earth Sciences
Economics
English
Exercise Physiology
French
Geography
Geophysics
German
Health Education (Pre-K-9) (Teacher Certification)
Health Education (5-12) (Teacher Certification)
Health Promotion

Health Resources Management

History
Instructional Media
Italian
Management
Mathematics
Middle School Education
Music
Philosophy
Physical Science
Physics
Political Science
Portuguese
Psychology
Public History
Public Relations
Radio and Television Operation and Production
Recreation
Russian
Russian and East European Studies
Scientific and Technical Illustration
Secondary Education
Social Welfare
Sociology
Spanish
Special Education
Theatre Arts
Urban Affairs
Women's Studies

*Students who wish to become junior high school or high school teachers elect a minor in Secondary Education and a major from one of the major fields offered. This minor requires more than 21 hours in order to satisfy Massachusetts certification standards.

All undergraduate and graduate students seeking professional certification must consult the section of this catalog entitled *School of Education and Allied Studies* for information pertaining to changes in the *State Regulations for the Certification of Educational Personnel* and important institutional deadlines.

General Education Requirements

The college requires that all students complete certain General Education Requirements in addition to courses in their major field of study and electives. These requirements are distributed throughout the academic departments so that students will study a variety of disciplines during their college career.

Opportunity exists for students to design their own General Education Requirements rather than following the

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requirements outlined. For detailed information contact the dean of the School of Arts and Sciences.

Students who are accepted for matriculation as freshman for September 1987 and all transfer students matriculated and enrolled after April 1, 1989 will follow the General Education Program outlined below. The intention of the college community in developing the GER program was to respond to the college's mission by providing a firm grounding in certain fundamental skills and methodologies for all recipients of the Bridgewater State College diploma.

The General Education Program is based on the premise that all educated persons, whatever their career interests, should possess the following essential academic skills:

- ability to write clearly and effectively;
- ability to listen and speak clearly and effectively;
- ability to think critically;
- ability to think quantitatively;
- ability to think creatively;
- ability to locate and process information.

The college furthermore has concluded that students should acquire an understanding of a significant body of factual knowledge and principles and experience in the critical and methodological processes of the following:

- description and documentation of western civilization which introduces students to a substantial, coherent, and broad perspective on historical knowledge within western culture and to the nature of historical inquiry;
- literary analysis of several literary masterworks of western civilization;
- philosophical/theological analysis of significant human concerns;
- systematic study of modes of artistic expression;
- facts, principles and methods developed by the sciences for explaining the physical and biological world;
- facts, principles and methods developed by mathematics for studying mathematical reality;
- systematic study of a foreign language;
- facts, principles and methods for understanding non-western civilization.

Specific courses which may be used to satisfy these requirements are listed below. Please note that Introduction to Information Resources and Writing I and II must be completed within the first 30 credits at Bridgewater; the Speaking requirement must be satisfied within the first 60 credits; and all GERs should be completed within the first 90 credits

taken at Bridgewater State College. In addition, all students must satisfy the state-mandated Constitution requirement and demonstrate proficiency in writing by successfully completing the college's writing proficiency examination.

- I Writing** 6 crs.
EN 101-102 Writing I, Writing II
- II Speaking** 3 crs.
CC 130 Human Communication Skills
- III Philosophy/Religion** 3 crs.
PL 101 Reasoning and Value
PL 102 Reasoning and Human Nature
PL 103 Reasoning and Politics
PL 104 Reasoning and Religion
PL 105 Reasoning and Science
- IV Locating and Processing Information** 1 cr.
ML 102 Introduction to Information Resources
- V History** 6 crs.
No more than one course in U.S. History may satisfy this requirement.
HI 111 Western Civilization to 1715
HI 112 Western Civilization since 1715
HI 121 The Ancient World
HI 124 The World since 1715 (if taken prior to Fall 1998)
HI 131 World History to 1500
HI 132 World History since 1500
HI 221 United States History and Constitutions to 1865
HI 222 United States History and Constitutions since 1865
ID 211 History and Literature of Western Civilization I
(All-College Honors students only)
- VI Literature** 3 crs.
EN 211 Literary Classics of Western Civilization to 1600
EN 212 Literary Classics of Western Civilization since 1600
EN 214 The Classical Tradition
EN 221 Major British Writers to 1800
EN 222 Major British Writers since 1800
EN 231 Major American Writers to 1865
EN 232 Major American Writers since 1865
EN 241 Shakespeare
EN 251 Literary Themes
EN 252 Literary Types
ID 211 History and Literature of Western Civilization I
(All-College Honors students only)
- VII Artistic Modes of Expression** 6 crs.
(select two courses in different disciplines, only one of which may be a studio course) The three disciplines are

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Art (AR and AH courses), Theatre/Dance (CT and CT/PE courses), and Music (MU courses).

Art

AH 101 Introduction to Art
 AH 102 Introduction to Architecture
 AH 201 Art Survey: Prehistoric, Ancient and Medieval
 AH 202 Art Survey: Renaissance, Baroque and Modern
 AH 203 American Art and Architecture
 AH 214 Art History Study Tour
 AR 125 Drawing I (studio)
 AR 130 Two-Dimensional Design (studio)
 AR 140 Three-Dimensional Design (studio)
 AR 216 Basic Photography (studio) (formerly ME 152)

Theatre/Dance

CT 110 Theatre Appreciation
 CT 115 Play Production
 CT 210 Oral Interpretation
 CT 226 Children's Theatre
 CT 236 The American Musical Theatre
 CT/PE 146 Dance Appreciation
 CT/PE 251 Dance History
 CT/PE 255 Creative Dance I

Music

MU 120 Class Guitar I (Classical Guitar) (studio)
 MU 130 Voice Class I (studio)
 MU 140 Class Piano I (studio)
 MU 160 Music: A Listening Approach
 MU 161 American Music of the Twentieth Century
 (if taken before Fall 1994)
 MU 166 Survey of American Jazz
 MU 167 Music of Black Americans
 MU 170 Music Fundamentals
 MU 240 Class Piano II (studio)

VIII Physical and Biological Sciences 6 crs.

Select courses from two different departments, of which at least one must be a laboratory course. Laboratory courses are marked with an asterisk (*) in the list below. The departments are biology, chemistry, earth sciences and geography, and physics.

Biology

BI 100 General Principles of Biology*
 BI 102 Introduction to Zoology*
 BI 106 Introductory Plant Science*
 BI 109 Introduction to Human Disease (non-lab)
 BI 110 Biology: A Human Approach (non-lab)
 BI 111 Human Heredity (non-lab)
 BI 112 Biology and Human Thought (non-lab)

BI 113 Fundamentals of Biology (non-lab)
 BI 114 Horticulture (non-lab)
 BI 115 The Microbial World and You (non-lab)
 BI 116 Drugs of Plant Origin (non-lab)
 BI 117 The Biological Environment (non-lab)
 BI 118 Evolution (non-lab)

Chemistry

CH 102 Chemistry in Everyday Life (non-lab)
 CH 111 The Art of Chemical Inquiry*
 CH 131 General Chemistry I*
 CH 141 Chemical Principles I*

Earth Sciences and Geography

ES 100 Physical Geology*
 ES 102 History of the Earth (non-lab)
 ES 194 Environmental Geology (non-lab)
 GE 100 Physical Geography*
 GE 120 The Physical World (non-lab)
 GE 196 Environmental Geography (non-lab)

Physics

PH 100 Physics in the Natural World*
 PH 102 Modern Physics for the Humanist (non-lab)
 PH 180 Energy and its Social Uses (non-lab)
 PH 181 Elements of Physics I*
 PH 243 General Physics I*

IX Behavioral Sciences 6 crs.

Select two courses. Each course must be from a different discipline.

Anthropology

AN 100 Introduction to Cultural Anthropology
 AN 101 Introduction to Physical Anthropology
 AN 103 Introduction to Archaeology
 AN 110 Introduction to Folklore
 AN 111 Myth and Culture

Psychology

PY 100 Introductory Psychology

Sociology

SO 102 Introduction to Sociology
 SO 103 Social Problems
 SO 108 Sociology of Religion
 SO 212 Discrimination and Prejudice
 (if taken prior to Spring 1997)
 SO 219 Population and Society

X Social Sciences 3 crs.

Select one course from one of the following areas:

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- EC 101 Principles of Microeconomics
- EC 102 Principles of Macroeconomics
- GS 110 Human Geography
- GS 170 Regional Geography: The Developed World
- ID 200 Introduction to Canadian Studies
- PO 100 Politics in Contemporary Society
- PO 172 Introduction to American Government
- PO 260 International Relations
- PO 274 Western Political Thought

XI Systematic Study of a Foreign Language 0/3/6 crs.
Students are required to complete successfully a language course at the second-semester level or to test out of such a course. See the *Department of Foreign Languages* section of this catalog for further information concerning completion of this requirement.

- LA 101-102 Elementary Arabic I-II
- LC 101-102 Elementary Chinese I-II
- LE 101-102 Elementary English as a Second Language I-II
- LF 101-102 Elementary French I-II
- LG 101-102 Elementary German I-II
- LJ 101-102 Elementary Japanese I-II
- LP 101-102 Elementary Portuguese I-II
- LR 101-102 Elementary Russian I-II
- LS 101-102 Elementary Spanish I-II
- LT 101-102 Elementary Italian I-II

XII Mathematics 3 crs.
MA 105 Selected Topics in Mathematics
MA 141 Elements of Calculus I
MA 151 Calculus I

XIII Facts, Principles and Methods for Understanding Non-Western Civilization 3 crs.
This requirement may not be satisfied within the student's major.

- AH 205 Far Eastern Art
- AH 208 Survey of Islamic Art and Architecture
- AN 104 Global Human Issues
- AN 206 Native Cultures of North America
- AN 208 Anthropology of Women
- AN 209 People and Cultures of Africa
- AN 213 Latin American Peoples and Cultures
- CT 222 Asian Theatre
- GS 160 Geography of Non-Western Cultures
- HI 151 Asian Civilizations
- LA 211 Arabic Literature in Translation
- MU 162 Music in African Culture
- MU 163 Music of the Non-Western World
- PE 345 Sport and Physical Education in East Asian Cultures

- PE 346 Sport and Culture in India
- PL 210 Liberation Ethics
- PL 212 Philosophies of India
- PL 213 Philosophies of China and Japan
- PY 200 Non-Western Theories of Personality
- SO 104 Global Human Issues
- SO 210 Society and Culture in Modern India
- SO 214 Middle Eastern Societies
- SO 217 East Asian Societies: China and Japan
- SO 220 Third World Societies
- SO 221 Religion and Society in Modern Asia

United States and Massachusetts Constitution Requirement

In addition to the general education requirements listed above, students must fulfill the state-mandated requirement in U.S. and Massachusetts Constitutions. This can be satisfied by enrolling in any one of the following:
HI 221 U.S. History and Constitutions to 1865
HI 222 U.S. History and Constitutions since 1865
PO 172 Introduction to American Government
PO 273 U.S. and Massachusetts Constitutions
PO 277 American Government: State and Local

Guidelines on General Education Requirements

1. A maximum of two courses (6 credit hours) in a student's major field may be applied toward the GERs. Cognate courses required by the major will apply, as appropriate, toward the GERs. NOTE: The GER requirement **XIII Facts, Principles and Methods for Understanding Non-Western Civilization**, may not be satisfied within the student's major.
2. Beyond the general education and the major requirements, all remaining courses are free electives. A free elective is any course not required to fulfill either the general education or the departmental and cognate requirements of the major.

Directed Study

The college permits students to pursue certain of their interests through directed study. Such an undertaking involves independent thinking, hard work, and creativity along with the guidance and help of a faculty member. The end result should be a paper or project accepted by the faculty member working with the student. Directed Study, which is limited to three credits with a maximum of six credits for graduation purposes and is primarily for upper-classmen, is available for the pursuit of such projects requiring independent work. Application forms for directed study are available from the student's department and should be submitted to the department chairperson for his/

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her recommendation and then forwarded to the dean of the School of Arts and Sciences or the dean of the School of Education and Allied Studies, or the dean of the School of Management and Aviation Science, as applicable, for approval. Completed forms must be received by the Office of Student Records and Registration by the end of the drop/add period to enroll the student.

Internship

A number of departments within the college offer students the opportunity to enroll in an internship, practicum, or field experience for academic credit. Such experiences provide students, usually in their third or fourth year, the chance to undertake a supervised practical experience in their field of study. Normally, field experience opportunities are available only during the fall and spring semesters.

Students interested in such a field experience have the option of (1) consulting with their faculty adviser for details on programs available through the department, or (2) developing their own program proposals, subject to the approval of the department. If the field experience desired is proposed by the student, it is the student's responsibility to locate a faculty member who will provide the necessary supervision.

Application and Selection

Application forms for a field experience are available from the student's department. The completed form must be filed with the chairperson of the department in which the field experience is to be undertaken *no later than the end of the first quarter of the semester prior to the semester in which the field experience is to be undertaken.*

The department will screen all applications in order to select students best suited for the positions available. The chairperson will forward the application forms to the dean of the appropriate school for approval. The completed form must be received by the Office of Student Records and Registration to enroll the student.

Applicants must have completed at least 54 credits with a minimum 2.0 cumulative GPA. Departments may set higher standards.

Supervision and Grading

Supervision, evaluation and grading of a field experience is the responsibility of each department offering such a program. A student may be removed from the program if, in the judgement of the faculty supervisor, it is in the best interests of the student, agency, and/or college. Grades are based on written evaluations from both the faculty supervisor and the agency supervisor.

Credit

From three to fifteen credits in field experience may be earned and applied toward graduation requirements. The number of these credits which may apply toward the major will be determined by each department. A minimum of 45 clock hours in the field is required for each credit hour granted.

Compensation

Normally, students may not be compensated except for minimal amounts to cover such expenses as travel.

Honors Program

The Honors Program at Bridgewater may be approached in two ways: All-College Honors, which extends through all four undergraduate years, and Departmental Honors, which runs from the fall of the junior year through the end of the senior year.

All-College Honors

Freshman and Sophomore Years

Students seeking All-College Honors must accumulate a total of nine credits of honors level work during their first four semesters. At least six of these credits must be earned in three-credit honors classes, and the remainder may be earned either in a third honors class or in three one-credit honors colloquia taken at various times over the first two years.

Each semester the college offers up to six three-credit honors classes and several colloquia. Both honors classes and colloquia are described in the *Course Offerings* brochure issued shortly before registration. One advantage of the three-credit honors classes is that they fit into a student's regular program, satisfying a General Education Requirement and requiring no overload. The colloquia, on the other hand, although they involve a temporary one-credit overload and do not carry GER credit, offer intensive study in more specialized areas.

Whether in honors classes or colloquia, students are expected to maintain a cumulative Grade Point Average (GPA) of 3.3. Any students who fall below this level may remain in the program for a further semester after which they will be dropped if the deficiency is not corrected. Whenever the GPA returns to 3.3, students may re-enter the program.

Junior and Senior Years

Students who have completed the nine credits of honors work described above and who have attained a cumulative GPA of at least 3.3 by the end of the sophomore year are eligible to continue in the All-College Honors program as

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juniors either by entering a Departmental Honors program or by undertaking, through the Honors Center, an individually designed Interdisciplinary Honors program. The interdisciplinary option is particularly attractive to students whose majors do not offer Departmental Honors.

At the beginning of each semester of the junior year both Departmental and All-College Honors students select a 300 or 400 level course to take on an "Honors" basis—i.e., the student completes a special advanced project, under the instructor's direction, in conjunction with the course. As a senior, the student researches and writes an honors thesis (earning three credits for "...485 Honors Thesis") under the direction of a faculty member on a one-on-one basis. Whether the thesis qualifies the student to graduate with all-college honors will be determined by the Departmental Honors Committee or, where appropriate, by the student's Interdisciplinary Honors Committee. For many students the honors thesis is the intellectual high point of the undergraduate experience—fascinating and exciting in its own right, and valuable as a preparation for graduate school or professional employment.

Credit requirements for All-College Honors may be summarized as follows:

- Nine honors credits at the 100 or 200 level of which at least six must be in three-credit honors classes and the remaining three in a third honors class or in three one-credit honors colloquia;
- At least six credit hours in honors course work at the 300 or 400 level obtained by undertaking special advanced work in junior and/or senior level courses (forms proposing such work must be obtained from the Honors Center, filled out, and returned during the first two weeks of the semester);
- At least three credit hours of honors thesis work under the direction of the major department based on research or other creative work which can include work in the major, in a related major, or in an interdisciplinary studies area.

Students who complete the program will have the phrase "with All-College Honors" entered on their transcripts.

Departmental Honors

Departmental Honors Programs, which emphasize independent study and research in the major, begin in the fall of the junior year. Programs are currently offered Art; Biology; Chemistry; Communication Studies and Theatre Arts; English; Foreign Languages; History; Management; Math-

ematics and Computer Science; Movement Arts, Health Promotion, and Leisure Studies; Philosophy; Political Science; and Psychology. Although GPA requirements vary, most departments require an over-all GPA of 3.0 or at least 3.3 in the major.

Admission to departmental honors programs does **not** require completion of honors courses or honors colloquia at the freshman and sophomore levels. For specific requirements, please consult the appropriate department or request a copy of the *Departmental Honors Programs* brochure from the Honors Center. A minimum of six hours of honors course work taken in the junior and/or senior years is required for departmental honors as well as a thesis or research project. Forms for proposing honors course work and the honors thesis must be obtained from the Honors Center, filled out, and returned during the first two weeks of the semester in which the student wishes to undertake the work. A brief description of honors work at the junior and senior levels will be found under "All-College Honors Junior and Senior Year". Students who complete a departmental honors program will have the phrase "with Honors in [the appropriate field]" entered on their transcripts.

Honors Center

Students in the program have access throughout the year to the honors center on the second floor of Harrington Hall. Designed as a study area and meeting place, the center has large work tables, comfortable chairs, computers, and a lending library. The center subscribes to various periodicals (most notably *The New York Review of Books*, *The Times Literary Supplement*, *Commentary*, *The New Republic*, *The American Scholar*, and *The American Spectator*), which are readily available to students. The center is open from 9:00 AM to 5:00 PM on Monday through Friday during the academic year.

Further Information

Further information on the honors program can be obtained from Dr. Charles Nickerson, Director, Honors Program, Harrington Hall, Room 202. Telephone (508) 697-1378.

Interdisciplinary Programs

The college offers a number of interdisciplinary programs, providing majors, minors, and pre-professional programs. See the section on *Interdisciplinary and Pre-Professional Programs*.

Cross Registration

CAPS

College Academic Program Sharing is designed to provide

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full-time students attending a Massachusetts state college the opportunity to study at another Massachusetts state college in order to add a different or specialized dimension to their undergraduate studies. Students may take 3 to 30 semester hours of credit without going through formal registration procedures and without a formal transfer credit approval process. Courses taken under the CAPS program are not included in the student's GPA. For further information contact the Office Student Records and Registration.

SACHEM

Through the Southeastern Association for Cooperation of Higher Education in Massachusetts, qualified full-time students may cross-register for two courses each semester, one of which is not offered at their own institution, without going through formal registration procedures. Tuition is covered within the student's full-time tuition charge at Bridgewater State College. Schools participating in this program include: Bristol Community College, Cape Cod Community College, Dean Junior College, Massachusetts Maritime Academy, Massasoit Community College, Stonehill College, University of Massachusetts Dartmouth, and Wheaton College. Application for cross-registration must be made through the Office of Student Records and Registration.

Undergraduate Academic Policies

Academic Year

The regular academic year consists of two semesters (fall and spring) of approximately sixteen weeks each. The college also holds two summer sessions of approximately five weeks each. Curricula leading to baccalaureate degrees are so planned that a student carrying 15 credit hours each semester 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 credits, distributed according to the General Education Requirements, the requirements of a major and any free electives;
2. Completion of at least 30 credit hours at Bridgewater, including at least half of the requirements for the major program and for any minors (NOTE: No more than 69 credits earned at a two-year institution, and accepted in transfer by Bridgewater State College, may be applied to the baccalaureate degree);
3. A minimum cumulative grade point average (GPA) of 2.0 at Bridgewater and any other academic requirements of the student's major department as approved by the college governance procedures;
4. A minimum cumulative grade point average (GPA) of 2.0 in the student's major(s) and minor(s) requirements taken at Bridgewater;
5. NOTE: Students will not be allowed to graduate until all financial debts to the college have been paid.

Conferral of a degree occurs when the registrar finalizes the student's academic record and confirms that all requirements have been satisfied. Participation in the commencement ceremony does not constitute conferral of the degree. Similarly, inclusion of a student's name in such publications as the commencement program does not confirm eligibility for the degree.

Degree Application

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 Office of Student Records and Registration.

Degree Application Cards must be returned to the Office of Student Records and Registration by:

- April 1 (for Winter Graduation)
- October 1 (for Spring Graduation)
- March 1 (for Summer Graduation)

Graduation With Honors

Academic excellence for the baccalaureate program is recognized by awarding degrees *summa cum laude* (cumulative GPA of 3.8 or higher), *magna cum laude* (cumulative GPA of 3.6 to 3.79), and *cum laude* (cumulative GPA of 3.3 to 3.59). The cumulative GPA determined for honors is based on all college-level work attempted at Bridgewater State College.

The commencement brochure is printed prior to grades being submitted for the student's final semester; therefore, the Office of Student Records and Registration must print the honors designation that a student has earned up to the time of publication. The student's diploma and finalized transcript, however, will reflect the official honors designation based upon the student's **final grade point average**. Honors announced at Commencement ceremonies will also reflect the student's final grade point average.

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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; F — Failure; IP — In Progress; W — Withdrawn; WP — Withdrawn Passing; WF — Withdrawn Failing. Grades in the A, B, C, and D ranges may include a designation of plus or minus. In computing averages, grades are assigned the following numerical values:

A	4.0
A-	3.7
B+	3.3
B	3.0
B-	2.7
C+	2.3
C	2.0
C-	1.7
D+	1.3
D	1.0
D-	0.7
F	0.0

No numerical value is assigned to P (Pass), F (Fail), S (Satisfactory), and U (Unsatisfactory) grades.

Certain departments may assign a grade of S — Satisfactory or U — Unsatisfactory for non-classroom courses (e.g. Internships).

Audit

A student may audit (AU) a course to gain knowledge in a particular subject area without earning credit or a grade. Students auditing a course attend and participate in classes; however, they are exempt from examinations. The course is automatically designated AU and becomes part of the student's permanent academic record. Audited courses will not be used to fulfill degree or graduation requirements.

Incomplete

An incomplete (IN) may be given by an instructor 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. *The student's request for an incomplete must be made in writing and must have the instructor's written approval.* Incompletes at the undergraduate level 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 "F" will automatically be entered on the transcript of any student who fails to meet this requirement. Candidates for graduation should note, however, that all work must be completed prior to graduation, including resolution of any grades of incomplete, since as of the date the degree is conferred the record is finalized.

Grades for all courses (day and evening) at Bridgewater State College become a part of the student's record and are used in computing the GPA.

Repeat Courses

A student may repeat, **once**, courses for which a D+, D, or D- are earned. Courses repeated must be taken at Bridgewater State College and should be made up within the following year. Such courses may be repeated by carrying an extra course, the overall load not to exceed a maximum of eighteen credit hours per semester or six credit hours during a summer session.

The grades for repeated courses will be computed in the student's GPA, but no additional degree credit will be applied toward the minimum number of hours required for graduation. The grade received for a course which has been repeated will not replace the original grade and the repeated course(s) will be clearly indicated as such on the student's transcript.

Dean's List

The dean's list is published at the end of each semester to honor the academic achievement of full-time undergraduate students. A 3.3 average for the semester is required with a minimum of 12 credits completed, and no grades of "incomplete" (IN).

Academic Standing

In order to remain in good academic standing at Bridgewater your cumulative GPA must remain above the level indicated below:

CREDIT HOURS ATTEMPTED*	ACADEMIC WARNING**	PROBATION GPA	SEPARATION BELOW THIS GPA
0-16	2.0-2.19	Below 2.0	1.00
17-31	2.0-2.19	Below 2.0	1.50
32-46	2.0-2.19	Below 2.0	1.65
47-61	2.0-2.19	Below 2.0	1.75
62-89	2.0-2.19	Below 2.0	1.85
90 and above	must maintain 2.00 or better	—	2.00

*"Credit hours attempted" includes all work taken at Bridgewater State College plus all credit accepted in transfer. However, only quality points earned at Bridgewater will be utilized in determining the GPA.

**Students who obtain a GPA of less than 2.2 and who have not been placed on academic probation will be notified in writing.

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For transfer students during their first semester to remain in good standing at Bridgewater State College, the cumulative GPA must remain at 1.5 or above. After the first semester, transfer students follow the table above.

Students on academic probation are limited to thirteen (13) semester hours during the semester they are on probation. In addition, academic probation may involve an adjustment in the student's academic load, frequent interviews between the student and adviser for the analysis of difficulties and for checking the student's progress, a stipulation that certain courses be taken to improve the student's academic performance, restrictions on the student's extracurricular activities, and other such precautions as are deemed advisable.

Students who have been academically separated from the college may not take courses at the college (day or evening), for at least one academic semester. After this time period, students may apply for readmission through the admissions office. Although not required, it is recommended that readmission applicants give evidence of at least one semester of academic work at some other institution of higher learning. However, course work taken elsewhere will not necessarily be accepted as transfer credit. An undergraduate matriculated student who is academically dismissed twice can only apply for readmission after a three year period. If readmitted, the student is placed on academic probation and must achieve a minimum GPA of 2.0 in order to continue. The grade point average of the student will be resumed after readmission. Students who have left the college for a minimum of three years may be given special consideration upon consultation with the vice president, academic affairs.

Note: Academic readmission or reinstatement to the college does not guarantee renewed financial aid eligibility. The student must contact the Financial Aid Office to be considered for financial aid.

Warning notices are sent mid-semester to all students who are receiving less than a "C" (1.7) average in any course at that time.

Satisfactory Academic Progress

In addition to being in good academic standing (please see the preceding section), a student is defined as making satisfactory academic progress when the academic record shows successful completion of a specified number of credits per semester. Full-time students must earn a minimum of 10 semester credits each semester to achieve satisfactory academic progress. Students should note that many financial assistance programs require participants to make satisfactory academic progress, in order to remain eligible.

Classification Designation

Students are designated as being in a given classification on the basis of the number of credits they have earned for courses completed successfully. The list below shows the number of credits which must be recorded in order for a student to be designated as a member of a particular classification.

Students should understand that these are *minimum* totals of credits accrued. The normal course load is 15 credits per semester, and it is this total which, maintained over eight semesters, yields the 120 credits required as a minimum for the baccalaureate degree.

For registration purposes, students will be classified based upon the total number of credit hours earned prior to the semester in which the registration is held.

Classification	Credit Hours Completed
Senior	84
Junior	54
Sophomore	24
Freshman	—

Registration

A registration and advising period is held each semester (November in the fall, April in the spring and May and June in the summer). Students meet with their adviser at this time to review the student's progress toward meeting General Education Requirements and specific degree requirements. A class schedule is developed and the student then attends registration at their designated registration session.

The *Course Offering Brochure*, published shortly before each registration period, provides specific registration dates and instructions on how to register. A number of departments conduct a pre-registration session for their majors. Information concerning pre-registration dates may be obtained from the academic department. **NOTE:** Students will not be allowed to register for courses until all financial debts to the college are paid, and health records are up-to-date.

Course Loads

Full-time undergraduate students must carry a course load of 12 to 18 credit hours or the equivalent each semester. The typical course load is 15 hours. Students wishing to carry more than 18 credit hours must receive permission from the appropriate dean (dean of Arts and Sciences or the dean of Education and Allied Studies) prior to registration. Failure to

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carry at least 12 credit hours may jeopardize housing, financial aid status and athletic eligibility.

It is recommended that students limit their course load during the summer to 6 credit hours each session.

It is recommended that students not carry semester courses during the session in which they enroll in student teaching.

Attendance Policy

Students are responsible for satisfactory attendance in each course for which they are registered. Satisfactory attendance shall be determined by the instructor within the context of this policy statement. The approval of excused absences and the assignment of makeup work are the prerogative of the course instructor. In general, students will be excused without penalty for reasons such as illness, participation in official college events, personal emergencies, and religious holidays. Students should consult with faculty members in advance of any absence whenever feasible.

PLEASE NOTE: If a student fails to attend the first three class hours of a course, the instructor has the option of deleting the student from the class roll by notifying the Office of Student Records and Registration within two weeks.

If a student has a concern with regard to the attendance policies or a faculty member has a concern about a student's excessive absence, he or she should confer with the chairperson of the department.

Course Drops and Adds

Schedule Adjustment Day is held prior to the beginning of classes each fall and spring semester to allow students the opportunity to make changes in their schedules.

In addition, during the first two weeks of a semester course or during the first five days of a quarter course, students may drop or add courses and no grade will be given. Drop/Add forms are available at academic departments and at the Academic Advising Center during the drop/add period. It is advisable that students discuss changes in their schedule with their adviser. Students taking courses after 4 PM should consult the *Course Offering Brochure* for schedule adjustment dates.

If a student does not follow these procedures, a grade of "F" will be entered on their academic record. This grade will be used in computing the GPA.

Withdrawal From Courses

If for some serious reason, a student wishes to withdraw from courses after the drop/add period, written permission must be secured on course withdrawal forms provided by the Office of the Student Records and Registration. Only if such a form is filed in the Office of Student Records and Registration by the end of the fifth week of a semester course, or by the end of the third week of a quarter course, may the grade of "W" be recorded. A student who withdraws between the fifth week and the tenth week of a semester course, or between the third and fifth week of a quarter course, will be assigned a grade of WP or WF. In all other instances a grade of "F" shall be given. *Normally, no student will be permitted to withdraw from a semester-long course after the tenth week of classes, or after the fifth week of a quarter course.*

Course Audit

Students may audit courses under the guidelines noted below. The student will receive no academic credit for the courses nor will a grade be reflected in his or her cumulative grade point average.

1. A student may audit a course subject to the approval of his or her adviser or department chairperson and consent of the instructor.
2. Students are subject to conditions established by the department and/or instructor for the audited course.
3. Students registering for credit have course enrollment preference over auditing students. Therefore, a student must register for audit only during the drop/add period by submitting forms provided by the Office of Student Records and Registration. A student's status as an auditor in a course cannot be changed.
4. Students may register for one audit course per semester. Exception may be granted by petition to the dean of the School of Arts and Sciences or the dean of the School of Education and Allied Studies.
5. No credit is awarded for audited courses. The student's transcript will reflect the course enrollment with the notation AU (no credit).

Leave of Absence

An undergraduate student who wishes to interrupt academic studies for one or two semesters (excluding the summer sessions), for financial, professional, or personal reasons, need not officially withdraw from the college.

Bridgewater State College

Instead, the student may take a one or two semester leave of absence by notifying the Academic Advising Center no later than thirty days prior to the beginning of the first semester of leave. Such a leave of absence will not affect the student's academic standing, the program and degree requirements under which that student first matriculated, or one's future eligibility for financial aid or housing, provided that the returning student meets specified guidelines and deadlines for application for such services. Please consult the Financial Aid Office in advance to determine the effect of a leave on aid.

Withdrawal From College

Forms for official withdrawal from the college may be obtained from the Academic Advising Center located in the Maxwell Library. Professional staff from the Academic Advising Center will assist in completing the process, including the review of alternatives available to the student. Resident students must also have their withdrawal form signed by the director of Residence Life and Housing, or a designee of that office. Should the student leave the college without giving official notification, failing grades will be recorded for all courses. After the tenth week of classes, grades will be recorded for all classes and the withdrawal will not be effective until the last day of the semester.

Students who withdraw from the college for reasons other than academic dismissal or withdrawal by the college may re-enter by contacting the Office of Student Records and Registration.

Students who are withdrawn due to academic dismissal should refer to the section on *Academic Standing*.

Declaration of Major for Freshmen

All students who enter as freshmen must formally declare a major or choose the status of an undeclared major in the second semester of the freshmen year. Prior to this declaration freshmen may change their area of interest by obtaining the necessary forms from the Academic Advising Center. Although Early Childhood, Elementary Education, and Special Education majors may not be formally admitted into the Teacher Education Program until the second semester of the sophomore year, they must confirm their continued interest in these majors by the same process used by the other freshmen for declaration of majors. In addition to their education program, students must also elect a major in the liberal arts.

Change of Major for Upperclassmen

Students may change majors at any time by obtaining a "change of major card" from the Academic Advising Center, securing the signatures of the department chairpersons involved, and filing the completed card with the Academic Advising Center.

Declaration of Minor

In order to be enrolled in any minor offered by the college, a student must declare the intended minor on forms available from the Academic Advising Center.

Students planning on being certified as secondary teachers should declare their minor in High School Education during their freshman or sophomore year.

Certification that the requirements of the minor have been met is made on the Degree Application Card by the department offering the minor. Students must achieve a minimum 2.0 cumulative average in declared minors for graduation.

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 Admissions.

Transfer of Credit After Admission

In order for undergraduates to receive credit for courses taken at other accredited institutions, approval must be obtained in advance.

Application forms are available in the Office of Student Records and Registration. Applications for approval of a course from another institution should be accompanied by the appropriate catalog from that institution. Transcripts of these approved courses must be submitted to the Office of Student Records and Registration within six weeks after the completion of the course. Approval must be obtained prior to registering for class. It is the student's responsibility to have official transcripts sent directly by the institution to the Office of Student Records and Registration.

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NOTE: Not more than sixty-nine credits may be transferred from a two-year college. Grades for courses taken at an institution other than Bridgewater State College are **not** used in computing the student's GPA.

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.

Standards for Representing the College

In order to represent the college in intercollegiate competition, or as an officer of a recognized club, organization, society, team or governance body, a student must:

- be in good academic standing
- be a full-time student, which is defined as carrying a minimum of 12 semester hours of credit
- not have completed undergraduate degree requirements
- have completed not more than eight full semesters in the day session except when the academic affairs office can verify that the academic program is not one that can normally be completed within eight full semesters

Such eight full semesters in the case of a transfer student include the number of semester's work granted in transfer credit.

Intercollegiate Athletics Eligibility

The following rules govern intercollegiate athletics eligibility for most students attending Bridgewater.

1. A student-athlete must be a full-time undergraduate student. Student-athletes must maintain a minimum of twelve (12) credit hours each semester they compete at the varsity level.*
2. A student-athlete must be enrolled as a degree-seeking student.
3. A student-athlete's Grade Point Average (GPA) must meet the requirements of good academic standing as defined in this catalog (2.0 minimum).
4. A student-athlete must pass 24 credit hours (normal progress rule) or the equivalent in an academic year as a full-time student.

5. A student-athlete must sign the N.C.A.A. Student Athlete Statement concerning eligibility, a Buckley Amendment Consent, and a drug testing consent, in addition to a Massachusetts hazing prohibition form.

*A student-athlete may waive the 12-hour enrollment requirement and satisfactory-progress requirements when objective evidence demonstrates that the institution has defined full-time enrollment for a learning-disabled or handicapped student-athlete to be less than 12 hours to accommodate for the student's learning disability or handicap.

In addition, there are very specific requirements which must be met in the case of transfer students from other four-year institutions, transfer students from two-year or junior colleges, and students who have been involved in multiple transfers. For information, please confer with the director of Athletics.

Dismissal Policies

Students are admitted to Bridgewater State College with the expectation that they will accept and abide by the standards of conduct and scholarship established by the faculty, administration and student governing boards. The college reserves the right to require students to withdraw who do not maintain acceptable academic standing. The college also reserves the right to dismiss, with due process, students who do not meet the requirements of conduct and order, or whose behavior is inconsistent with the standards of the college. The *Bridgewater State College Handbook* outlines campus policies and may be obtained in the Office of Student Affairs.

The Graduate School

Kerry A. Kerber
Dean, Graduate School

Paul Wright
Assistant Dean

The Graduate School at Bridgewater State College acts as a coordinating institution among the departments engaged in graduate instruction. The graduate dean, the graduate faculty, and the Graduate Education Council are responsible for the maintenance of appropriate standards for graduate degrees and certificates.

The primary objective of Bridgewater's graduate programs is to increase to an advanced level the graduate student's understanding of and competence in a designated field of study. By extending the student's area of knowledge, research skills, and creative talents, the graduate programs of the college aim to increase the individual's ability to pursue and contribute to a satisfying career.

The Office of the Graduate School is located in the Maxwell Library, ground floor, Park Avenue entrance. The Graduate School Office is open Monday through Thursday from 9 AM to 8 PM and Friday from 9 AM to 5 PM. Telephone (508) 697-1300.

Persons interested in working toward a master's degree, Certificate of Advanced Graduate Study (CAGS), or certification program on either a full-time or part-time basis should request appropriate application material. Students are responsible for being aware of the general policies, procedures, and program requirements of the Graduate School outlined in the following pages prior to enrolling in courses carrying graduate credit. For additional information relative to a specific graduate program, students should contact the appropriate department graduate program coordinator in the department involved.

Graduate Programs

Master of Arts

Programs leading to the degree of Master of Arts are offered in the areas of:

English
Psychology

Master of Arts in Teaching

Programs leading to the degree of Master of Arts in Teaching are offered in the following areas:

Biology
Chemistry
Creative Arts
Earth Sciences
English
Health Education
History
Mathematics
Physical Education
Physical Sciences
Physics
Social Studies
Speech Communication and Theatre

Master of Education

Programs leading to the degree of Master of Education are offered in the following areas:

Counseling
Early Childhood Education
Educational Leadership
Elementary Education
Health Promotion
Instructional Technology
Library Media Studies
Reading
Special Education

*The Graduate School***Master of Public Administration**

The Master of Public Administration degree offers concentrations in the areas of:

- Financial and Personnel Administration
- Municipal and Regional Development and Management
- Public Safety Administration
- Nonprofit and Human Services Administration

Master of Science

Programs leading to the degree of Master of Science are offered in the following areas:

- Computer Science
- Physical Education

Certificate of Advanced Graduate Study (CAGS)

A program leading to the CAGS in Education is offered in the areas of Educational Leadership and Reading.

Doctor of Education

A collaborative CAGS/Ed.D. program is offered in the area of Educational Leadership with the University of Massachusetts-Lowell.

Post Baccalaureate Certification Programs

Post baccalaureate certification programs leading to provisional certification with advanced standing are offered in the areas of:

- Early Childhood Education
- Elementary Education
- Health Education
- Physical Education
- Secondary Education (Middle School/High School)
- Special Education

Programs for Educational Personnel

Programs designed to lead to the certification of educational personnel are available to qualified persons who have earned a bachelor's degree and who are interested in one of the certificates listed below.

To be eligible, individuals must be officially admitted by the Graduate School and the School of Education and Allied

Studies to an appropriate post-baccalaureate or post-master's certification program or to an appropriate Master of Arts in Teaching or Master of Education program. All of the programs listed have been approved by the Massachusetts Department of Education and include automatic certification in a number of states which have reciprocity agreements with Massachusetts.

Specific information regarding such programs is provided in this catalog under the School of Education and Allied Studies and appropriate departmental descriptions. For additional details regarding certification program procedures and requirements, students should contact the appropriate graduate program coordinator.

Certificates Offered:

- Early Childhood Teacher (Pre-K-3)
- Elementary School Teacher (1-6)
- Middle School Generalist (5-9)
- Teacher of Visual Art (Pre-K-9) (5-12)
- Teacher of Biology* (5-9) (9-12)
- Teacher of Chemistry* (5-9) (9-12)
- Teacher of Communication and Performing Arts (all levels)
- Teacher of Earth Science* (5-9) (9-12)
- Teacher of English (5-9) (9-12)
- Teacher of Foreign Language (5-12)
- Teacher of Health (Pre-K-9) (5-12)
- Teacher of History (5-9) (9-12)
- Teacher of Mathematics (5-9) (9-12)
- Teacher of Music (Pre-K-9) (5-12)
- Teacher of Physical Education (Pre-K-9) (5-12)
- Teacher of Physics* (5-9) (9-12)
- Teacher of Social Studies (5-9) (9-12)
- Teacher of Reading (all levels)
- Teacher of Students with Special Needs (Pre-K-9) (5-12)
- Instructional Technology Specialist
- Library Media Specialist (all levels)
- School Guidance Counselor (Pre-K-9) (5-12)
- Administrator of Special Education (all levels)
- School Principal/Assistant School Principal (Pre-K-6) (5-9) (9-12)
- School Business Administrator (all levels)
- Supervisor/Director (various levels)
- Superintendent/Assistant Superintendent

* Students completing these certification programs may also elect to seek Teaching General Science certification.

Please note: All graduate students seeking certification and enrolling in upper level courses in the School of Education and Allied Studies must be officially accepted into professional education.

Bridgewater State College

Admissions

Admission Standards

Post-Baccalaureate Certification Programs

Students seeking admission to a post-baccalaureate provisional certification with advanced standing program must hold a bachelor's degree from a four-year institution of acceptable standing. (A liberal arts or science undergraduate major or its equivalent, completed after admission, is required.)

Post-baccalaureate program applicants must meet the following criteria in order to be admitted to the Graduate School:

1. a 2.5 undergraduate GPA
2. three appropriate letters of recommendation

Master's Degree Programs

Please note that certain graduate programs (for example, counseling, psychology, and public administration) have additional admissions information which is available in the appropriate departmental section of the catalog.

Students seeking admission to a program leading to a master's degree must hold a bachelor's degree from a four-year institution of acceptable standing. (College seniors may be admitted on a conditional basis.) Master's degree applicants must meet the following criteria in order to receive a "clear admit" (full graduate student status):

1. A composite score of 900 on the quantitative and verbal parts of the GRE General Test.
2. A 2.75 undergraduate GPA based upon four years of work, or a 3.0 undergraduate GPA based upon work completed during the junior and senior years.
3. A rating of 1 (on part IV) on the three letters of recommendation (with 1 being the highest rating on the scale). At least two of the recommendations should be from professors and the third letter of recommendation could be from a professional employer.

Applicant's who do not meet the "Clear Admit" status will be granted a "Conditional Acceptance" if they meet the following criteria:

1. A 2.5 undergraduate GPA based upon four years of work, or a 2.75 undergraduate GPA based upon work completed during the junior and senior years.

2. A composite score of 600-899 on the quantitative and verbal parts of the GRE General Test.
3. A rating of at least 2 on the three letters of recommendation (with 1 being the highest rating on the scale). At least two of the recommendations should be from professors and the third letter of recommendation could be from a professional employer.

Conditions that must be met to move from conditional to full graduate student status:

1. The student must enroll in GP 501 Graduate Program Planning and meet with his or her adviser who will recommend three graduate courses that must be taken at Bridgewater State College.
2. ED 530 Research Methods (or its equivalent, if the major requires a substitute course) must be taken as one of the three courses; the other two courses will be in the academic major.
3. The student must meet a GPA of at least 3.0 after completion of the three required courses.

If students make a GPA of at least 3.0 after completing the courses, they would be moved into full graduate student status. If students do not make a GPA of at least 3.0 after completing the courses, they would automatically be dismissed.

Post-Master's Certification Programs

Students seeking admission to a post-master's certification program must hold a master's degree from an accredited institution and must meet the following criteria in order to be admitted to the Graduate School:

1. A 3.0 graduate GPA.
2. Three appropriate letters of recommendation.

Application Procedures

The Graduate School presently admits students during the fall, spring and summer semesters of each year. An application is not complete unless all of the appropriate documents indicated below have been received by the Office of the Graduate School on or before the appropriate application deadline:

October 1 for November admission
January 1 for February admission
April 1 for May admission
July 1 for August admission

It is the responsibility of the student to make certain that all application documents are received on time. Applicants should indicate a specific degree or certificate program (and also the area of study) when they request application forms. Any student who has filed material for admission to a given graduate program or area of study, and subsequently decides to apply for admission to another program or area of study, should consult the paragraph on "Changes in Program" in this section of the catalog.

It should be noted that certain programs require a formal interview with the program coordinator. Please consult the department requirements presented in this catalog.

Applicants to the Graduate School should make certain that the material listed below is on file in the Graduate School office. Application forms with fee payments and all other correspondence and application material should be sent to the Graduate School Office, Bridgewater State College, Bridgewater, Massachusetts 02325.

1. An appropriate application form and Graduate School Application Fee of \$25.00.

Application forms may be obtained from the Graduate School. Checks covering the nonrefundable \$25.00 Graduate School application fee should be made payable to *Bridgewater State College* and submitted to the Graduate School accompanying the program application form.

2. Three official copies of all undergraduate and graduate transcripts.

All transcripts must be sent by college registrars directly to the Graduate School and must bear the seal of the college. Applicants who have attended more than one undergraduate college and/or graduate school should arrange to have transcripts of all course work, including grade results, sent directly to the Graduate School. Graduates of Bridgewater State College and persons who have taken non-degree credit at the college should request the college registrar to send transcripts to the Graduate School.

Applicants who have successfully completed graduate courses, as well as those who hold a degree(s) in addition to the baccalaureate, must fulfill all application requirements as set forth in this catalog. It should be noted that the successful completion of graduate courses prior to application shall not obligate the academic department or the Graduate School to recommend an applicant for acceptance.

3. The results of the Graduate Record Examination (GRE) — master's degree applicants only.

All master's degree applicants must arrange to have scores from the GRE General Test sent from the Educational Testing Service directly to the Graduate School. Photocopies of scores and scores submitted by the applicant are not acceptable. Application forms and information relative to the Graduate Record Examinations may be obtained from the Graduate School. Since up to six weeks may elapse between the test date and the receipt of scores, applicants should take the test well in advance of the Graduate School's deadline for receipt of completed applications. In addition, applicants for certain Master of Arts and Master of Science programs must submit scores from the appropriate Subject Test. All applicants from countries where English is not an official language, must also submit scores on Educational Testing Service's Test of English as a Foreign Language (TOEFL) examination. Ordinarily, only students with TOEFL scores of 550 or better will be considered for admission.

4. Three letters of recommendation

Forms for recommendations are available at the Graduate School. In general, only letters of recommendation submitted on these forms and sent by the reference directly to the Graduate School will be accepted. These letters provide an estimate of the applicant's ability to pursue successfully a program in the proposed field or concentration. For M.A.T. and M.Ed. applicants at least two letters must be from the faculty who have taught the applicant at the collegiate level (undergraduate or graduate). The third letter may be from an appropriate employer or school administrator for whom the applicant has taught. For M.A. and M.S. applicants at least two letters must be from persons who have taught the applicant in the appropriate area of concentration. The third M.A. letter may be from any faculty member who has taught the applicant at the collegiate level or from an appropriate employer or school administrator for whom the applicant has taught.

5. Additional departmental requirements

There may also be special departmental requirements relative to the application, such as an interview. Such requirements, if any, are to be found under each department's description of its graduate program(s).

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Action by the Department

All completed applications are sent to the academic department in which the applicant proposes to concentrate. After reviewing these applications, departments make recommendations to the Graduate School.

Action by the Graduate School

The graduate dean, after reviewing the recommendations of the academic department, notifies the applicant of the action taken.

Graduate Advisers and Program Planning

Each graduate student who is accepted is assigned an adviser(s) representing the student's area of study. All students are required by the Graduate School to enroll in the following program planning course, in addition to completing minimum credit requirements in their program.

GP 501 Graduate Program Planning 1 graduate credit

The planning and development of a coherent program of graduate study appropriate to the student's academic and professional background and objectives. Graduate students who have been accepted into a master's degree or CAGS program should enroll under the direction of their adviser(s) immediately after acceptance by the Graduate School and prior to enrolling in any additional courses. For details, students should contact their adviser.

All accepted students will receive from the Graduate School copies of the form *Graduate Program Proposal*. Students are required to have a completed copy of this form sent to the Graduate School when applying to graduate. It should be noted that conferences with advisers may be difficult or impossible to arrange during holidays and college vacations, and during the months of June, July, and August.

Change in Program

Any request to change from one graduate program to another must be made prior to the deadline for receiving completed applications as indicated in the college calendar. Students wishing to change programs should request the Graduate School in writing to review their file to determine what additional material needs to be submitted. Students requesting a change in program should be aware that their original date of acceptance by the Graduate School will not change. Appropriate credits earned prior to a program change may be transferred to the new graduate program with the approval of the new adviser.

General Policies and Procedures

Students are responsible for all information given in the latest edition of the catalog and also for any notices posted on the bulletin boards of the Graduate School, the Office of Student Records and Registration, the library, and the appropriate academic department. Students who have questions regarding the graduate regulations presented in this catalog should contact the Graduate School.

Graduate students who experience problems pertaining to Graduate School policies, including academic performance, program requirements or other academic issues may petition to have the matter considered through the Graduate School's established review process:

1. Submit a written appeal to the course instructor if the issue is course-related or to the academic adviser if the matter is program related.
2. If unresolved, submit a written appeal to the Department Graduate Program Coordinator.
3. If unresolved, submit a written appeal to the Dean of the Graduate School.
4. The Dean of the Graduate School will submit graduate student petitions to the Graduate Education Council for review. (The Graduate Education Council is comprised of representatives from the college's graduate faculty, administrators, and graduate student body.)

Grading System

Graduate course achievement will be rated A (4.0), A- (3.7), B+ (3.3), B (3.0), B- (2.7), C+ (2.3), C (2.0), C- (1.7), F (0), W (Withdrawn), IN (Incomplete), or AU (Audit). The following courses are graded on a P (Pass)/F (Fail) basis:

- GP 501 Graduate Program Planning
- ED 534 Clinical Experience
- ED 570 CAGS Seminar
- ED 581 CAGS Extern I
- ED 582 CAGS Extern II
- PO 506 Public Administration Module

Academic Probation

Any graduate student whose cumulative GPA falls below 3.0 will be notified that he or she is on probation. Also, if a graduate student receives two grades below B- (or one grade of F), he or she will be placed on academic probation. Graduate students on probation will be required to meet with their adviser prior to registering for any additional coursework.

Academic Dismissal

Any graduate student who has a cumulative GPA below 3.0 for more than two semesters is subject to academic dismissal. Also, any graduate student who receives a third grade below B- (or a second grade of F) is subject to academic dismissal.

Academic Average for Graduate Degrees

In the courses which a graduate student offers to satisfy degree requirements, the minimum standard for satisfactory work is a 3.0 average.

Satisfactory or Reasonable Progress

Graduate students must make satisfactory or reasonable progress toward completion of a degree program within the Graduate School's statute of limitations. A student who is not making such progress is subject to separation from the program.

Statute of Limitations—Program and Courses

All graduate program requirements, including the comprehensive examination, must be completed within six years of the date of the student's acceptance. In addition, no graduate course offered for master's degree or CAGS credit may be more than six years old at the time program requirements are completed.

Maximum Credit Load

Full-time graduate students may register for up to fifteen credits during the fall and spring terms, and up to six credits during each of the two summer sessions. Students wishing to register for more than the maximum credit load must receive permission in writing from their graduate adviser, program coordinator, and the graduate dean.

Full-Time and Part-Time Student Status

Full-time graduate study is defined, for academic purposes only, as being enrolled for nine or more graduate credits in a

given term. Part-time graduate study is defined, for academic purposes only, as being enrolled for less than nine graduate credits in a given term.

Graduate and Undergraduate Credit

Courses at Bridgewater with 500 and 600 level numbers carry graduate credit and are open only to graduate students.

An undergraduate may request to enroll in a 500 level course for undergraduate credit. Approval is based upon the following criteria:

- The student must be a senior, in his/her last semester of coursework.
- The student's GPA must be a 3.5 or higher.
- The student's written request must be approved by the student's major department, School Dean, and the Dean of the Graduate School.

An undergraduate may request to enroll in a 500 level course for graduate credit. Approval is based upon the above criteria; in addition, the student must have completed 120 degree credits.

Certain 400 level courses may be taken for either graduate or undergraduate credit. Graduate School guidelines for faculty teaching these latter courses indicate that advanced work should be required of graduate students. The guidelines recommend that more rigorous examinations and more sophisticated term papers should be expected to take into account the different quantitative and qualitative standards associated with graduate study.

Program and Course Prerequisites

Program prerequisites may be required to ensure adequate preparation for graduate work in the area of study. In certain cases, these prerequisites may be fulfilled after the applicant's acceptance by the Graduate School. Certain advanced courses require that students have completed specific prerequisite courses.

Transfer Credit

Only six credits may be transferred into any graduate degree program.

Transfer credit at the graduate level is defined at Bridgewater to include two distinct credit situations. First, transfer credit is defined as being any appropriate graduate credit taken at Bridgewater State College or at another

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accredited institution *prior to acceptance* to a Bridgewater graduate program. This includes appropriate graduate credit earned in courses in which the student is enrolled at the time of acceptance. Second, transfer credit is defined to include appropriate graduate credit taken at an accredited institution other than Bridgewater State College *after acceptance* to a Bridgewater graduate program. It should be noted, however, that of the total number of credits offered for the degree, taken both prior to and after acceptance, not more than six can be transferred from other graduate schools or Bridgewater State College. All courses to be used as transfer credit in a graduate program must have the approval of the adviser and be recorded on the student's *Graduate Program Proposal*. Details regarding the matter of transfer credit as it applies to Bridgewater's master's degree and CAGS program are provided below.

Transfer Credit — Master's Degree Programs

A student who has enrolled in appropriate courses at Bridgewater or at another accredited institution prior to acceptance by the Graduate School may request that up to six graduate credits be accepted in partial fulfillment of degree requirements. This includes any credits earned in courses in which the student is enrolled at the time of acceptance. It does not include prerequisites. Approval is subject to the following conditions: 1) that a grade of B- or better has been earned in all courses being transferred; and 2) that courses being transferred have not been used to fulfill the requirements of another degree or certificate. A form entitled *Petition for Acceptance of Transfer Credit* is sent to the student by the Graduate School at the time of acceptance. If courses enrolled in prior to acceptance are to be applied toward fulfillment of requirements for a master's degree, it is the student's responsibility to submit the approved transfer credit form to the Graduate School after completing GP 501 Graduate Program Planning. It should be noted that all transfer courses are subject to the regulations governing time limits — no graduate course offered for the degree may be more than six years old when degree requirements are completed.

After a student has been admitted to a master's degree program, a maximum of six graduate credits of grade B or better, taken at an institution accredited at the graduate level other than Bridgewater State College, may be transferred if approved by the adviser. It should be noted, however, that of the total number of credits offered for the degree, taken both prior to and after acceptance, not more than six can be transferred from other graduate schools or Bridgewater State College. Two official transcripts of courses taken at another institution after acceptance must be sent directly to the Bridgewater State College Graduate School.

Transfer Credit — CAGS Program

A student who has enrolled in appropriate courses at Bridgewater or at another accredited institution after completion of a master's degree and prior to acceptance in a CAGS program may request that up to six graduate credits be accepted in partial fulfillment of CAGS requirements. This includes credit earned in courses in which the student is enrolled at the time of acceptance. It does not include prerequisites. (CAGS in Education applicants, who must enroll in ED 570 CAGS Seminar prior to review of their application, may request that up to six graduate credits in addition to ED 570 be accepted as transfer credit.) A grade of B- or better is required of all courses being transferred. A form entitled *Petition for Acceptance of Transfer Credit* is sent to the student by the Graduate School at the time of acceptance. If courses enrolled in prior to acceptance are to be applied toward fulfillment of CAGS requirements, it is the student's responsibility to submit the approved transfer credit form to the Graduate School Office after completing GP 501 Graduate Program Planning. It should be noted that all transfer courses are subject to the regulations governing time limits — no graduate courses offered for the CAGS may be more than six years old when certificate requirements are completed.

After a student has been admitted to a CAGS program, a maximum of six graduate credits of grade B or better, taken at an institution accredited at the graduate level other than Bridgewater State College, may be transferred if approved by the adviser. It should be noted, however, that of the total number of credits offered for the CAGS, taken both prior to and after acceptance, not more than six can be transferred from other graduate schools. Two official transcripts of courses taken at another institution must be sent directly to the Bridgewater State College Graduate School.

Repeating Courses

Unless otherwise noted a course may be taken more than once but only the grade earned in the initial course may be counted toward degree requirements.

Incompletes

An incomplete (IN) may be given by an instructor only when a student has missed the final examination for good reason or has not completed a major assignment which can be finished in a short period of time. An incomplete at the graduate level must be completed by the end of the following semester. Courses which are not successfully completed by this deadline will automatically be changed to a grade of F (Failure).

Course Registration

Prior to the registration period for the fall, spring, and summer semesters a *Course Offering Brochure* is distributed by the Office of Student Records and Registration in Boyden Hall.

Graduate course work is offered on either a full-time or part-time basis. Students should realize that it is not possible to set an absolute deadline for completing a graduate program, due to such factors as the college's need to reserve the right to cancel any course for which there is insufficient enrollment and departments' need to offer courses on a rotating basis.

Withdrawal

Withdrawal from Courses

If, for some reason, a student wishes to withdraw from a course after the drop/add period, written permission must be secured on forms provided by the Office of Student Records and Registration. Only if such a form is filed in the Office of Student Records and Registration within the first five weeks of a semester course, may the grade of "W" be recorded. A student who withdraws between the fifth week and the tenth week of a semester course will be assigned a grade of WP or WF. In all other instances a grade of "F" shall be given. Normally, no student will be permitted to withdraw from a semester-long course after the tenth week of classes, or after the fifth week of a quarter course.

Withdrawal from the College

Students who decide to withdraw from a graduate program should notify the Graduate School of their intentions in writing as soon as possible. (Students should also consult course withdrawal procedures and refund policies indicated elsewhere in the catalog.)

Course Drops and Adds

Schedule adjustment days are held prior to the beginning of classes each semester to allow students the opportunity to make changes to their schedules. In addition, during the first two weeks of a semester or the first five class days of a quarter, students may drop or add courses and no grade will be recorded. Drop/Add forms are available from the Office of Student Records and Registration during the Drop/Add period.

If a student does not follow these procedures, a grade of "F" will be entered on the record. This grade will be used to compute the GPA.

Deadlines

Students are reminded to consult the annual college calendar for deadlines and dates relative to such matters as: admis-

sions, Graduate Record Examinations, comprehensive examination requests, approval of transfer credit, and application to graduate. This calendar is printed in the college catalog and *Course Offering Brochure*.

Change of Name and/or Address

Students should promptly notify the Office of the Graduate School of any change in name or address by using the appropriate form. Failure to do this may cause unfortunate complications and delays which inconvenience students. Forms are available at the Office of the Graduate School.

Graduate Assistantships

The Graduate School offers a number of graduate assistantships in areas associated with the college's graduate programs. Only those who have been accepted into a Bridgewater State College graduate program are eligible to be awarded a graduate assistantship. Application forms may be obtained from the Office of the Graduate School. Completed assistantship applications should be returned to the appropriate academic or administrative department. Applicants who are awarded an assistantship will receive a letter of appointment from the Dean of the Graduate School.

Graduate assistants receive a stipend for the academic year (September-June). Assistants will also receive tuition and fee remission for up to nine credits of course work during each of the fall and spring semesters, and for up to six credits of course work during the summer session(s). The tuition and fee waiver applies only to courses offered at 4:30 PM and later. Graduate assistants are expected to work a minimum of 20 hours per week.

For information regarding additional forms of financial assistance, see the section of this catalog titled *Financial Aid*.

Independent Study

Each department's graduate offerings include two courses in which a student who has been accepted in a graduate program and who meets the course prerequisites can pursue independent study under the direction of a faculty adviser.

—502 Research (credit to be arranged) — Original research undertaken by the graduate student in his or her field. The student's investigations ordinarily culminate in a thesis. The number of credits awarded for the research may vary, and the student may repeat the course until a maximum of nine credits in an M.A. program and six credits in an M.A.T., M.Ed., M.S., or CAGS program is earned toward the minimum credit requirements for the degree or certificate.

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Matriculated graduate students who wish to enroll in *Research* must complete and file the Graduate School form *Approval of Thesis Topic and Outline*. A Graduate School letter of approval to enroll in —502 should be requested.

—503 **Directed Study** (credit to be arranged) — This course is designed for the graduate student who desires to study selected topics in his or her field. *Directed study* may not be used to substitute for courses which are required in the program or to study topics which are covered in required or elective courses in the program. The number of directed studies approved by the Graduate School dean in a given academic year will be limited due to both academic and budgetary reasons.

Students who wish to enroll in *directed study* should first meet with their adviser and, if approval is granted, obtain the form *request for directed study* from the Graduate School Office. Please note that *directed study* follows the same registration procedures as all other academic course work on campus; that is, arrangement for *directed study* must take place prior to the time of registration with all forms completed and on file at the appropriate departmental office. Enrollment in *directed study* is limited to students who have been accepted to a graduate program at Bridgewater State College and who have completed a minimum of fifteen approved graduate credits.

Thesis

Graduate students submitting a thesis have a thesis committee which is comprised of at least three faculty members, including a thesis committee chairperson appointed by the graduate program coordinator. All thesis committee appointments should follow consultation with the student's adviser and the student.

It is the responsibility of the student to obtain from the Graduate School three copies of the form, *Approval of Thesis Topic and Outline* and submit the completed copies to the adviser for approval by the members of the student's thesis committee. The student's thesis committee chairperson should retain the original copy of the completed form and should return the remaining two copies to the student. The student retains one copy for his or her records and submits the other to the Graduate School in order to be eligible to register for thesis credit under the course heading *Research*. (If the student, with the approval of the thesis committee, changes the thesis topic, revised copies of the above form must be filed).

Students should refer to the course entitled *Research* which appears in the catalog under their major department and in

this section under *Independent Study*, as well as consult with the adviser, relative to the matter of earning credit for research done in conjunction with a thesis. Students must be enrolled in *Research* during any period in which a faculty member is directing the thesis.

Three unbound copies of the approved thesis must be submitted to the Graduate School not later than the completion of all other degree requirements. Each copy must contain an abstract of the thesis. The Office of the Graduate School arranges for the binding of theses. A fee of \$12.00 per copy is charged. Checks should be made payable to Bridgewater State College and submitted to the Graduate School.

Exit Requirements

In order for a student to exit from a graduate program, he or she must satisfactorily complete all credit requirements, as well as pass a Comprehensive Examination.

Comprehensive Examination

All graduate students must take a comprehensive examination that reflects the full range of their program. The design of the Comprehensive Examination must show a relationship to the program and to the program's exit seminar. It is based upon the student's major area(s) of study, as well as related areas, and may include work done on a thesis. Students must give evidence that they can integrate information and ideas from the various areas in which they have studied. The examination may be written and/or oral, as determined by the student's department.

In order to be eligible for a Comprehensive Examination, the student should have completed all of the necessary coursework specified by the major department. A student who plans to take the Comprehensive Examination should file the Graduate School form entitled *Examination Request*, together with a nonrefundable Comprehensive Examination Fee of \$60.00 for master's degree candidates and \$75.00 for CAGS candidates. Checks should be made payable to Bridgewater State College and submitted to the Graduate School. The form should be completed and filed along with the fee no later than the deadline indicated in the college calendar. Comprehensives are given during the months of November and March only. Results are due in the Graduate Office no later than December 5 and April 15.

All students who take the comprehensive examination will be notified of the results by mail in a timely fashion.

Students who fail the Comprehensive Examination shall be given one further opportunity to take it after they have made substantial progress in whatever additional work may be prescribed by the adviser. The student should meet immediately with the faculty adviser or designated person to review weaknesses of the student's performance, and a prescribed program of study should be designed to help guide the student to prepare for the second examination. The student will be allowed the choice of either an oral or written examination when retaking the comprehensive.

Application to Graduate

Students who are nearing the completion of their graduate program requirements and who plan to receive a master's degree or CAGS in January, May, or August, should request the form *Application to Graduate* from the Graduate School. This form should be completed by the student and filed, together with the candidate's *Graduate Program Proposal*, approved by the faculty adviser, in the Graduate School no later than the deadline indicated in the college calendar. Failure to file before the deadline will postpone degree conferral. A nonrefundable Commencement Fee of \$11.00 (plus an additional fee of \$27.00 for academic regalia for students attending commencement exercises) is required at the time of filing the *Application to Graduate*. Checks should be made payable to *Bridgewater State College* and submitted to the Graduate School.

No degree or certificate will be conferred and no graduate transcripts will be issued unless all tuition and fees have been paid in full.

Diplomas are awarded at the winter and spring commencements and also at the end of August.

In the event that a student does not receive the degree at the anticipated time, the student should contact the Graduate School Office.

Graduate Program Requirements

Master of Arts

General Requirements — A minimum of thirty approved graduate credits is required for the Master of Arts degree, in addition to a one-credit program planning course to be taken under the direction of an adviser upon acceptance in the program. All credits must have the adviser's endorsement. A thesis is optional in certain Master of Arts programs. For additional details, students should consult

appropriate departmental sections of the catalog for specific program requirements for the degree. Ordinarily, at least one-half of the degree credits should be earned in courses limited to graduate students (500 level).

Comprehensive Examination — All students are required to pass a comprehensive examination. For details, see the paragraph in this section of the catalog entitled *Comprehensive Examination*.

Master of Arts in Teaching

The clinical Master of Arts in Teaching (M.A.T.) degree is designed for persons who have provisional certification with advanced standing and are seeking standard certification in an appropriate secondary or middle level subject area. The M.A.T. program is also designed for secondary and middle level subject area teachers who have an appropriate standard certificate. Students needing provisional certification with advanced standing should refer in this catalog to the program entitled "Post-Baccalaureate Program: Provisional Certification with Advanced Standing for Secondary (Subject Areas: 9-12) and Middle Level (Subject Areas: 5-9) Teachers" under the *Department of Secondary Education and Professional Programs*. Students seeking certification should also consult the section of this catalog entitled *School of Education and Allied Studies* for information pertaining to professional certification, admission to and retention in Professional Education, as well as important institutional deadlines.

General Requirements — A minimum of thirty to thirty-six approved graduate credits is required for the M.A.T. degree, which is offered through the Department of Secondary Education and Professional Programs and the academic departments of the college. In addition, a one-credit program planning course is taken under the direction of an adviser after acceptance in the program.

Course Requirements — For details regarding course requirements, students should consult the M.A.T. information listed in this catalog under the *Department of Secondary Education and Professional Programs* and the appropriate academic department.

Comprehensive Examination — All students are required to pass a comprehensive examination. For details, see the paragraph in this section of the catalog entitled *Comprehensive Examination*.

Certification Information — Bridgewater's clinical Master of Arts in Teaching programs have been approved by the Massachusetts Department of Education for certification of

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educational personnel. Specific information regarding such programs is provided in this catalog under the School of Education and Allied Studies and appropriate departmental program descriptions. For additional details regarding certification program procedures and requirements, students should contact the appropriate graduate program coordinator.

Master of Education

The clinical Master of Education (M.Ed.) degree is designed for persons who have provisional certification with advanced standing and are seeking standard certification in an appropriate area. The M.Ed. program is also designed for teachers who have an appropriate standard certificate, as well as persons in community-based organizations and agencies.

General Requirements — A minimum of thirty to thirty-six approved graduate credits, depending upon the program, is required for the Master of Education degree, in addition to a one-credit program planning course to be taken under the direction of an adviser upon acceptance in the program. For program details, students should consult the appropriate departmental section of this catalog. Degree credits must have the endorsement of the adviser.

Course Requirements — For details regarding course requirements, students should consult the M.Ed. information listed in this catalog under the appropriate department.

Comprehensive Examination — All students are required to pass a comprehensive examination. For details, see the paragraph in this section of the catalog entitled *Comprehensive Examination*.

Certification Information — A number of Bridgewater's Master of Education programs have been approved by the Massachusetts Department of Education for certification of educational personnel. Specific information regarding such programs is provided in this catalog under the School of Education and Allied Studies and appropriate departmental program descriptions. For additional details regarding certification program procedures and requirements, students should contact the appropriate graduate program coordinator.

Master of Public Administration

The Master of Public Administration (M.P.A.) degree provides professional education to prepare persons for leadership roles in public administration and public affairs. Program details are provided in the graduate program section of the *Department of Political Science* in this catalog.

Master of Science

General Requirements — A minimum of thirty approved graduate credits is required for the Master of Science degree, in addition to a one-credit program planning course to be taken under the direction of an adviser upon acceptance in the program. All credits must have the adviser's endorsement. A thesis is optional in certain Master of Science programs. For additional details, students should consult appropriate departmental sections of the catalog for specific program requirements for the degree. Ordinarily, at least one-half of the degree credits should be earned in courses limited to graduate students (500 level).

Comprehensive Examination — All students are required to pass a comprehensive examination. For details, see the paragraph in this section of the catalog entitled *Comprehensive Examination*.

Certificate of Advanced Graduate Study (CAGS)

General Requirements — A minimum of thirty approved graduate credits is required for the CAGS, in addition to a one-credit program planning course to be taken under the direction of an adviser upon acceptance in the program. Courses taken for the CAGS may not repeat work previously accomplished by the student in either his or her undergraduate or graduate degree work. Ordinarily, at least one-half of the CAGS credits must be earned in courses limited to graduate students (500 level).

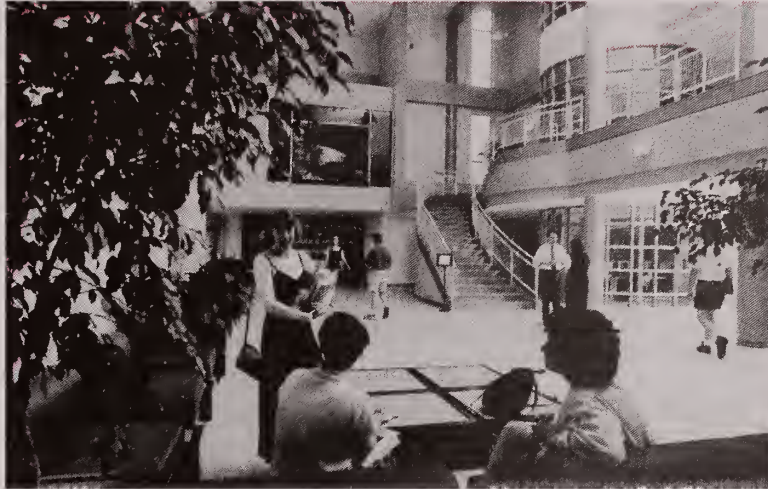
Currently, the college offers a program leading to a Certificate of Advanced Graduate Study (CAGS) in Education with concentrations in Educational Leadership and Reading. For details, students should consult the Educational Leadership and Reading program sections of this catalog.

Comprehensive Examination — All CAGS students are required to pass a comprehensive examination. For details, see the paragraph in this section of the catalog entitled *Comprehensive Examination*.

Collaborative CAGS/Ed.D. Program

There is now a transfer agreement between Bridgewater State College, which offers the Certificate of Advanced Graduate Study (CAGS) (see above), and the University of Massachusetts-Lowell, which offers the Doctor of Education (Ed.D.) degree. Further program information is provided in the *School of Education and Allied Studies* section of this catalog.

Program & Course Offerings



General Information

The following sections present the academic schools of the college and their departments. Each department's undergraduate and graduate programs are outlined, together with a listing of its course offerings. First the academic school is presented. Each school's section is followed by a presentation of undergraduate and graduate department's programs, listed in alphabetical order. Individual course descriptions are included in this section under the appropriate headings.

The course offerings include all courses which are taught for academic credit at the college. At present, the majority of the 500-600 level courses are offered in the evening hours. Students are urged to consult the *Course Offering Brochure* each semester to see when specific courses are offered.

Students should consult the undergraduate or graduate sections of this catalog for information on academic regulations applicable to their degree.

Course Numbering System

100 - 299	Introductory courses or courses normally taken during the freshman and sophomore years.
300 - 399	Courses normally taken in the junior or senior years.
400 - 499	Courses normally taken by seniors; open to graduate students if noted.
500 - 699	Courses open only to graduate students.

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 indicated in each course description.

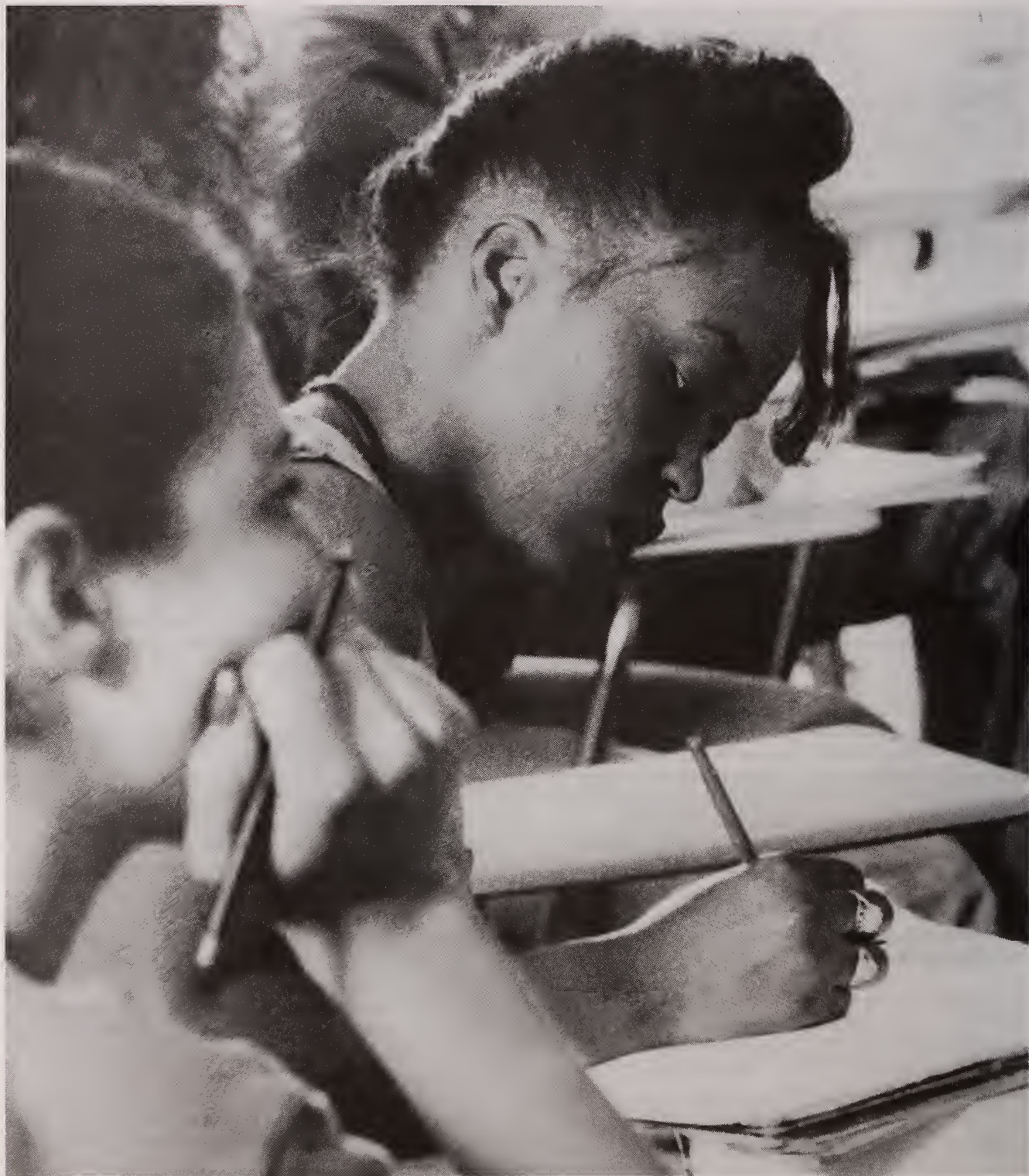
Semester Notations

In some course descriptions, the list of prerequisites is followed by a semester designation indicating when the course can normally be expected to be offered. This information is provided to assist students and their advisers in planning their programs. Please note, however, that all course listings published are subject to change, and that the college reserves the right to cancel courses or sections with inadequate enrollment.

Meeting Times

Unless specified otherwise, day session 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 and in the schedule of courses.

Courses offered during evening hours normally meet once a week for a three-hour period. Exceptions are noted in the *Course Offering Brochure*.



School of Arts and Sciences

Art

Biological Sciences

Chemical Sciences

Communication Studies and Theatre Arts

Earth Sciences and Geography

Economics

English

Foreign Languages

History

Mathematics and Computer Science

Music

Philosophy

Physics

Political Science

Psychology

Social Work

Sociology and Anthropology

Dr. Howard London

Dean, School of Arts and Sciences

Academic Departments

Art

Professor John Heller, Chairperson

Biological Sciences

Dr. John Jahoda, Chairperson

Chemical Sciences

Dr. Henry Daley, Jr., Chairperson

Communication Studies and Theatre Arts

Dr. Nancy Street, Chairperson

Earth Sciences and Geography

Dr. Sandra Clark, Chairperson

Economics

Dr. Anthony Cicerone, Chairperson

English

Dr. Iain Crawford, Chairperson

Foreign Languages

Dr. Lydia Bernstein, Chairperson

History

Professor Jean Stonehouse, Chairperson

Mathematics and Computer Science

Associate Professor Gail Price, Chairperson

Music

Dr. David Garcia, Acting Chairperson

Philosophy

Dr. Steven Sanders, Chairperson

Physics

Dr. Jeffrey Williams, Chairperson

Political Science

Dr. Michael Kryzaneck, Chairperson

Psychology

Dr. Ruth Hannon, Chairperson

Social Work

Dr. Rebecca Leavitt, Chairperson

Sociology and Anthropology

Dr. Donald Armfield, Chairperson

Bridgewater State College

Undergraduate Programs

The School of Arts and Sciences offers undergraduate programs leading to the Bachelor of Arts or Bachelor of Science degree in the areas listed below. Listed beneath each department are the concentrations it offers. Concentrations are programs of study within the major with their own subset of requirements. Cognate courses (courses required by the major, but offered by another department) are not counted as part of the 36 hours. Only students selecting the major field of study may complete a concentration within that major. The completed concentration is indicated on the student's transcript.

Anthropology	English
<i>Cultural Anthropology</i>	<i>Writing</i>
<i>Public Archaeology</i>	Geography
Art	<i>Environmental Geography</i>
<i>Graphic Design</i>	<i>Geotechnology</i>
<i>Crafts</i>	<i>Regional & Economic</i>
<i>Fine Arts</i>	<i>Planning</i>
Biology	History
<i>Biomedical</i>	<i>Military History</i>
<i>Cell/Molecular</i>	Mathematics
<i>Environmental</i>	Music
<i>General</i>	Philosophy
Chemistry	<i>Applied Ethics</i>
<i>Biochemistry</i>	Physics
<i>Professional Chemistry</i>	<i>Computer Electronics</i>
Chemistry/Geology	Political Science
Communication Arts & Sciences	<i>American Politics</i>
<i>Communication Studies</i>	<i>International Affairs</i>
<i>Theatre Arts</i>	<i>Legal Studies</i>
<i>Teacher Certification in</i>	<i>Psychology</i>
<i>Theatre, Dance and Speech</i>	<i>Industrial-Personnel</i>
Computer Science	<i>Medical Psychology</i>
Earth Sciences	Social Work
<i>Environmental Geoscience</i>	Sociology
<i>Geology</i>	<i>Criminology</i>
Economics	<i>Third World Studies</i>
	Spanish

Bachelor of Arts/Bachelor of Science

The Bachelor of Arts and Bachelor of Science degree programs allow students to select from a number of areas and provide preparation for high school teaching (if secondary education is elected as a minor), graduate school, and fields of endeavor related to the major area of study. The decision as to whether to award the degree of Bachelor of Arts or the degree of Bachelor of Science shall be con-

sistent with the standards in the student's major field as determined by the major department.

In cases where students with double majors are eligible for a BA, BS and/or BSE degree the student will select which major department will make the decision regarding which degree the student will be awarded.

Students are advised to consult with their department chairperson or major adviser early in their academic career, but not later than the end of the sophomore year, in order to select a major and to be certain that course selection will allow graduation with the desired degree.

Undergraduate Major

A student must meet all requirements of the major as specified under the departmental listings. A minimum of 24 credits and a maximum of 36 credits within the major may be required by a department even if students do not complete a concentration. Cognate courses (courses required by the major, but offered by another department) are not counted as part of the required hours within the major. The 24 to 36 credits reflect all courses taken in the major department, including those which also satisfy General Education Requirements. At least one half of the required courses in the major field (excluding cognate requirements) must be successfully completed at this college.

Double Major

In order to graduate with a double major, a student must meet all requirements of both majors sought, without waiver. The student's petition to double major must be made in writing and agreed to by both departments. Official notification of the approval of a double major will be made by the Academic Advising Center. Completion of the double major will be reflected on the final transcript.

Undergraduate Minor

A minor is a unified set of courses chosen outside the major field of study requiring not less than 18 nor more than 21 hours. The minor is recorded on the student's transcript. Minors may include courses from only one department or may be interdisciplinary. Students may use courses which satisfy GER or departmental requirements to fulfill interdisciplinary minor requirements unless otherwise prohibited. At least one half of the courses required for the minor must be successfully completed at this college. Specific requirements for a minor are found under the departmental descriptions. In the School of Arts and Sciences the following minors in

specific disciplines or interdisciplinary areas are offered:

American Studies	Music
Anthropology	Philosophy
Art	Physical Science
Art History	Physics
Biology	Political Science
Biochemistry	Portuguese
Canadian Studies	Psychology
Chemistry	Public History
Communication Studies	Public Relations
Computer Science	Radio and Television
Dance	Operation and Production
Earth Sciences	Russian
Economics	Russian & East
English	European Studies
French	Social Welfare
Geophysics	Sociology
Geography	Spanish
German	Theatre Arts
History	Urban Affairs
Italian	Women's Studies
Mathematics	

Graduate Programs

Graduate programs leading to the Master of Arts, Master of Arts in Teaching, Master of Public Administration, and Master of Science degrees are offered in the following fields:

Master of Arts

English
Psychology

Master of Arts in Teaching

Biology
Chemistry
Creative Arts
Earth Sciences
English
History
Mathematics
Physical Sciences
Physics
Social Studies
Communication and Theatre

Master of Public Administration

Concentrations:

Financial and Personnel Administration
Municipal and Regional Development and Management
Public Safety Administration
Nonprofit and Human Services Administration

Master of Science

Computer Science

Additional information regarding graduate programs, including application procedures and academic requirements, may be found in the *Graduate School* and appropriate departmental sections of this catalog.

Department of Art

Faculty

Chairperson: Professor John Heller

Professors: John Droege, Roger Dunn,
Joan Hausrath, William Kendall,
Stephen Smalley, Robert Ward

Associate

Professors: Mercedes Nunez, Dorothy Pulsifer

Assistant

Professor: Donna Stanton

Undergraduate Programs

Bachelor of Arts

The Department of Art offers four areas of study. These include concentrations in:

- Fine Arts
- Graphic Design
- Crafts
- and a program of study in Art Education.

Programs on the undergraduate level also provide preparation for graduate study, and offer internships that give first-hand experience in such areas as museology, exhibition planning, community art programs, and graphic design.

Students interested in teaching art must select a minor in High School Education or Elementary Education. However, state mandated requirements for teacher training are subject to change, so it is necessary to consult with either Dr. Stephen Smalley or Professor Dorothy Pulsifer regarding up-to-date requirements. Prospective teachers of art are encouraged to join the student chapter of the National Art Education Association.

Art majors not interested in an education minor are encouraged to select a minor complementing their interests within the major. Students who are not art majors, wishing to minor in art or art history will find a diversity of course offerings



suitable to their interests and skills. To insure an appropriate selection of art courses in the major or minor, it is important that each student work closely with his or her art adviser or the department chairperson in program selection.

It should be noted that a student majoring in art must achieve a grade of C- or better in all of the required courses within the art program, repeating courses if necessary to achieve the required grade.

Students should be aware that typically there will be expenses in studio courses for materials beyond the required fees. Field trips to regional museums and other sites are regularly a part of many art courses.

A gallery calendar of changing exhibitions is maintained throughout the academic year in the Wallace L. Anderson Gallery within the art building. (One of these exhibitions is the student show, and art majors and minors are encouraged to set aside their best work to submit to this annual showing.) In an adjacent gallery is a continuing exhibition of works from the permanent art collection. These gallery facilities offer a range of work that enhances classroom instruction. In addition, visiting artists and related art programs are made possible each year by a generous gift from the class of 1936.

Fine Arts Concentration

AR 125 Drawing I
 AR 130 Two-Dimensional Design
 AR 140 Three-Dimensional Design
 AH 201 Art Survey: Prehistoric, Ancient and Medieval
 AH 202 Art Survey: Renaissance, Baroque and Modern
 AR 225 Drawing II
 AR 230 Painting I
 AR 240 Sculpture I
 AR 255 Printmaking I
 AH 307 20th Century Art and Architecture
 One crafts course from, but not limited to, the following:
 AR 270 Ceramics I
 AR 273 Glass I
 AR 280 Metals I
 AR 290 Weaving I
 AR 291 Tapestry Weaving
 One additional 3-credit art elective.

Graphic Design Concentration

AR 125 Drawing I
 AR 130 Two-Dimensional Design
 AR 140 Three-Dimensional Design
 AH 202 Art Survey: Renaissance, Baroque, and Modern
 AR 225 Drawing II
 AR 230 Painting I
 AR 240 Sculpture I
 AR 260 Introduction to Graphic Design
 AH 307 20th Century Art and Architecture
 AR 361 Graphic Design II
 AR 362 Graphic Design III
 AR 460 Advanced Graphic Design

Admission to the Graphic Design concentration is based on a portfolio review, but graphic design courses may be taken without this review. Normally the review should follow successful completion of AR 260.

Crafts Concentration

AR 125 Drawing I
 AR 130 Two-Dimensional Design
 AR 140 Three-Dimensional Design
 AR 230 Painting I
 or
 AR 235 Watercolor Painting I
 AR 240 Sculpture I
 Choose two of the following:
 AH 201 Art Survey: Prehistoric, Ancient and Medieval
 AH 202 Art Survey: Renaissance, Baroque and Modern

AH 307 20th Century Art and Architecture
 AR 360 Business Issues for Visual Artists
 Choose two level I craft courses:
 AR 270 Ceramics I
 AR 273 Glass I
 AR 280 Metals I
 AR 290 Weaving I
 One 300 level crafts course
 One 400 level crafts course

Double Major with Elementary Education, Early Childhood Education or Special Education

Students may choose a double major in Art and Elementary Education, Early Childhood Education or Special Education for certification purposes. Appropriate advising materials with suggested course sequences are available.

Minor in Education (K-9, 5-12)

Students minoring in education must refer to the Department of Secondary Education and Professional Programs for specific requirements, and consult with the Art Education coordinator, Professor Dorothy Pulsifer or Dr. Stephen Smalley, for additional information.

Art Minor

AR 125 Drawing I
 All students wishing to minor in art should meet with an Art Department adviser before selecting the remaining 15 credits
 Choose one:
 AR 130 Two-Dimensional Design
 AR 140 Three-Dimensional Design
 12 credits in art or art history

Art History Minor

Not open to art majors.
 AH 201 Art Survey: Prehistoric, Ancient and Medieval (required)
 AH 202 Art Survey: Renaissance, Baroque and Modern (required)
 Select 5 courses from:
 AH 203 American Art and Architecture
 AH 205 Far Eastern Art
 AH 214 Art History Study Tour
 AH 302 Greek and Roman Art and Architecture
 AH 303 Medieval Art and Architecture
 AH 304 Renaissance Art and Architecture
 AH 305 Baroque Art

School of Arts & Sciences

AH 306 19th Century Art and Architecture
AH 307 20th Century Art and Architecture
AH 308 Women in the Visual Arts
AH 414 Art History Study Tour (Advanced)
PL 325 Philosophy of Art
AN 309 Anthropology of Art

Programs Preparatory to Graduate Study

Scientific and Technical Illustration

Students interested in pursuing scientific illustration at the graduate level should consult the section of this catalog entitled *Interdisciplinary and Pre-Professional Programs* for details.

Art Therapy

For students interested in pursuing Art Therapy at the graduate level, the art department recommends an art major with a minor in psychology, or a psychology major with an art minor.

Graduate Programs

Master of Arts in Teaching

Clinical Master's Program

Creative Arts

Certification Program (Standard Level)

This master's degree program is designed for persons who have provisional certification with advanced standing and are seeking standard certification in the area of visual art (Pre-K-9, 5-12). (Students needing provisional certification with advanced standing should refer in this catalog to the program entitled "Post Baccalaureate Program: Provisional Certification With Advanced Standing for Secondary (Subject Areas: 9-12) and Middle Level (Subject Areas: 5-9) Teachers" under the *Department of Secondary Education and Professional Programs*.)

For information regarding application procedures and admission standards, students should consult the Graduate School section of this catalog.

Students seeking standard certification should consult the section of this catalog entitled *School of Education and Allied Studies* for information pertaining to professional certification, admission to and retention in Professional Education, as well as important institutional deadlines.

GP 501 Graduate Program Planning

All accepted students must enroll under the direction of their adviser in GP 501 Graduate Program Planning, which

is described under "Graduate Adviser and Program Planning" in the *Graduate School* section of this catalog. As part of their program, students must satisfactorily complete the following curriculum:

Education Core

ED 530 Research Methods
ED 531 The Curriculum Experience
ED 532 Critical Issues - Educators and Society
ED 533 Effective Practices in Human Development & Learning
ED 534 Clinical Experience (6 crs.)
ED 537 Applied Research Project (2 crs.)

(Course descriptions for ED 530-537 are provided in the School of Education and Allied Studies section of this catalog.)

Discipline Area Requirements

M.A.T. students are expected to have, or acquire in addition to degree requirements, an appropriate background of college level courses, to be determined by the department.

Required Courses:

- A. Three 500 level courses selected from one of the following disciplines:
 - Art History
 - Photography
 - Drawing
 - Painting
 - Printmaking
 - Graphic Design
 - Ceramics
 - Metals
 - Weaving
 - Sculpture
- B. If the above concentration is in studio art, one 500 level art history course must be selected.
- C. AR 537 Applied Research Project (1 cr.)
- D. The remaining 1-2 courses will be chosen from the complete list of art courses offered at the 500 level.
- E. Students selecting the Art History concentration may satisfy three credits of this 15 hour requirement with AR 514 Art History Study Tour.

Each student will be required to pass a comprehensive examination prior to being eligible to receive the Master of Arts in Teaching degree.

Students who successfully complete the above curriculum are eligible for standard certification.

**Master of Arts in Teaching
Creative Arts****Program for Teachers with Standard Certification**

This program is designed for secondary and middle level subject area teachers who have standard certification.

All accepted students must enroll under the direction of their adviser in GP 501 Graduate Program Planning, which is described under "Graduate Adviser and Program Planning" in the *Graduate School* section of this catalog. As part of their program, students must satisfactorily complete the following curriculum:

- GP 501 Graduate Program Planning
- ED 530 Research Methods
- ED 531 The Curriculum Experience
- ED 532 Critical Issues - Educators and Society
- ED 533 Effective Practices in Human Development and Learning

(Course descriptions for ED 530 - 533 are provided in the *School of Education and Allied Studies* section of this catalog.)

Discipline Electives

M.A.T. students are expected to have, or acquire in addition to degree requirements, an appropriate background of college level courses, to be determined by the department.

A minimum of 18 approved graduate credits in the academic area of concentration, which meet the academic and professional objectives of the student, is required.

Successful completion of a comprehensive examination is also required.

School of Arts & Sciences

Course Offerings*

AH 101 Introduction to Art (3 crs.)

Emphasis on painting, sculpture, and architecture. Topics include aesthetic principles, artistic styles and their historical contexts, analysis of media and technical processes. A museum visit is assigned. Satisfies the GER in Artistic Modes of Expression. *Either semester*

AH 102 Introduction to Architecture (3 crs.)

Domestic, religious, commercial and governmental buildings throughout history are studied in terms of elements of style, systems and materials of architectural construction, and the symbolic and expressive qualities of buildings. Satisfies the GER in Artistic Modes of Expression. *Either semester*

AH 135-136 Freshman Honors Colloquium (1 cr. each semester)

Freshman Honors Colloquia in Art allow exceptionally able students to explore a challenging topic in small classes under close faculty supervision. Colloquia meet once a week for fifty minutes and culminate in a paper or artistic project which provides the major part of the grade. Open to all-college honors students and to others at the discretion of the instructor. Topics vary from semester to semester. (*Prerequisite: consent of the instructor*) AH 135 fall semester, AH 136 spring semester

AH 201 Art Survey: Prehistoric, Ancient & Medieval (3 crs.)

Major developments in painting, sculpture and architecture are examined from the prehistoric through the late Gothic periods in the Mediterranean area and northern Europe. Emphasis is placed on the evolution of styles and their basis in the needs and values of each culture. A museum visit is assigned. Satisfies the GER in Artistic Modes of Expression. *Either semester*

AH 202 Art Survey: Renaissance, Baroque & Modern (3 crs.)

Major developments in painting, sculpture and architecture are examined from the Renaissance into the modern era in Europe and the United States. Stylistic analysis is integrated with an historical approach. A museum visit is assigned. Satisfies the GER in Artistic Modes of Expression. *Either semester*

AH 203 American Art and Architecture (3 crs.)

Trends in architecture, painting, sculpture and crafts are surveyed from the first colonial settlements in America to the achievements of the present day. Included are vernacular, folk, and regional styles. A museum visit is assigned. Satisfies the GER in Artistic Modes of Expression. *Offered once every three semesters*

AH 205 Far Eastern Art (3 crs.)

Major achievements in architecture, sculpture, pictorial arts and decorative arts of India, China, and Japan will be the focus of this survey, with some attention given to the other cultures of the Far East. A museum visit is assigned. Satisfies the GER in Non-Western Civilization.

AH 208 Survey of Islamic Art and Architecture (3 crs.)

This course examines Islamic art, architecture and urbanism from its formation in the seventh century to the present in the east and west Mediterranean and India. The first part of the course focuses on the

creation and development of Islamic imperial artistic tradition in the seventh century and its regionalization through the fourteenth century. The second half of the course emphasizes the grand imperial traditions of the Ottomans, the Safavids and the Mughals and the subsequent effects of colonialization and Westernization. Satisfies the GER in Non-Western Civilization.

AH 214 Art History Study Tour (3 or 6 crs.)

A broad range of topics in the history of art is studied in museums and architectural sites in Europe. Preparatory classwork is conducted on campus prior to travel; assignments and exams are completed upon return. This course may be taken twice with different itineraries and course topics; please note that only 3 credits may be applied to the General Education Requirements. Satisfies the GER in Artistic Modes of Expression. *Offered summers and intersessions only*

AH 286-287 Sophomore Honors Colloquium (1 cr. each semester)

Sophomore Honors Colloquia in Art allow exceptionally able students to explore a challenging topic in small classes under close faculty supervision. Colloquia meet once a week for fifty minutes and culminate in a paper or artistic project which provides the major part of the grade. Open to all-college honors students and to others at the discretion of the instructor. Topics vary from semester to semester. (*Prerequisite: consent of the instructor*) AH 286 fall semester, AH 287 spring semester

AH 302 Greek and Roman Art and Architecture (3 crs.)

Painting, sculpture, architecture and the minor arts. Historical antecedents and significant cultural influences in art. *Offered once every three years*

AH 303 Medieval Art and Architecture (3 crs.)

A study of painting, architecture, sculpture and minor arts produced in Europe from the time of early Christianity to the Renaissance. Special emphasis on stylistic and cultural influences. *Offered once every three years*

AH 304 Renaissance Art and Architecture (3 crs.)

The development of the arts of architecture, painting, and sculpture in the early, high and late Renaissance, with special emphasis on their interrelationships and their relation to the artistic theories and cultural ideals of the time. *Offered once every three years*

AH 305 17th and 18th Century Art and Architecture (3 crs.)

The spectacular achievements of this rich artistic period are covered, including Bernini, Rubens, Rembrandt, Vermeer, Velasquez, Poussin and Fragonard. Featured works of architecture include St. Peter's Basilica and the Palace of Versailles. The period encompasses the styles of Baroque, Classicism and Rococo. *Offered once every three years*

AH 306 19th Century Art and Architecture (3 crs.)

A study of European art and architecture from Neo-Classicism to Post-Impressionism. Attention given to the historical and cultural settings in which the art was produced. *Offered once every three years*

AH 307 20th Century Art and Architecture (3 crs.)

A study of major movements in art and architecture of the 20th century. Attention given to the theoretical foundations for these modern artistic movements as well as their stylistic distinctions. *Offered alternate semesters*

* See page 73 for general information regarding course offerings.

AH 308 Women in the Visual Arts (3 crs.)

This course will address the historical and contemporary perspectives of women artists, their contributions through traditional and non-traditional art forms, and will examine critically the extent to which this talent and art has not been fully recognized nor supported by various cultures and prevailing attitudes. *Offered once every two years*

AH 338/339 Honors Tutorial in Art (3 crs. each semester)

Special Topics in art. Open to All-College and Departmental Honors students. Three hourly meetings weekly. *(Prerequisite: consent of the department honors committee)*

AH 414 Art History Study Tour (Advanced) (3 or 6 crs.)

A broad range of topics in the history of art is studied in museums and architectural sites in Europe. Preparatory classwork is conducted on campus prior to travel; assignments and exams are completed upon return. This course may be taken twice with different itineraries and course topics. *Offered summers and intersessions only*

AH 485 Honors Thesis in Art (3 crs.)

This course is open to All-College and Departmental Honors students. One-hour weekly meetings with the thesis director will culminate in a thesis comprising both art works and a written corollary. With the consent of the Departmental Honors Committee and the thesis director, this course may be extended into a second semester for three additional credits depending upon the scope of the project. Whether the final version of the thesis qualifies the student to graduate with honors will be determined by the Departmental Honors Committee, who will review the results as presented by the student. *(Prerequisite: AH 338, and consent of the Departmental Honors Committee)*

AH 490 Art History Studies in Oxford (3 crs.)

Select topics in art and architecture will range from studies of art movements and styles with a unique British character to luminaries in British art. Connections will be explored with art and architectural traditions in Europe and beyond. Primary sources such as the Ashmolean Museum in Oxford and the National Portrait Gallery in London will be visited. (This is a special program in England at Oxford University in July. Additional fees are required). *(Prerequisites: Students will normally be expected to be in their junior and senior year.)*

AH 492 Topics in Art History (3 crs.)

This course addresses specific topics of limited or special interest in art history. Specific topics will be announced prior to registration. This course may be repeated for different topics. *(Prerequisites: Consent of instructor)*

AH 499 Directed Study in Art (1-3 crs.)

Open to juniors and seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits. *(Prerequisite: consent of the department; formal application required) Either semester*

AH 502 Greek and Roman Art and Architecture (3 crs.)

Painting, sculpture, architecture and the minor arts. Historical antecedents and significant cultural influences in art.

AH 503 Medieval Painting Art and Architecture (3 crs.)

A study of painting, architecture, sculpture and minor arts produced in Europe from the time of early Christianity to the Renaissance. Special emphasis on stylistic and cultural influences.

AH 504 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.

AH 505 17th and 18th Century Art and Architecture (3 crs.)

The spectacular achievements of this rich artistic period are covered, including Bernini, Rubens, Rembrandt, Vermeer, Velasquez, Poussin and Fragonard. Featured works of architecture include St. Peter's Basilica and the Palace of Versailles. The period encompasses the styles of Baroque, Classicism and Rococo.

AH 506 19th Century Art and Architecture (3 crs.)

A study of European art and architecture from Neo-Classicism to Post-Impressionism. Attention given to the historical and cultural settings in which the art was produced.

AH 507 20th Century Art and Architecture (3 crs.)

A study of major movements in art and architecture of the 20th century. Attention given to the theoretical foundation for these modern artistic movements as well as their stylistic distinctions.

AH 508 Women in the Visual Arts (3 crs.)

This course will address the historical and contemporary perspectives of women artists, their contributions through traditional and non-traditional art forms, and will examine critically the extent to which this talent and art had not been fully recognized nor supported by various cultures and prevailing attitudes.

AR 125 Drawing I (3 crs.)

Basic concepts of perspective, modeling in light and dark and contour drawing are explored through various media and techniques including pencil, pen and ink, ink wash and charcoal. Subjects may include the nude figure. Six hours per week.* Satisfies the GER in Artistic Modes of Expression (Studio course). *Either semester*

AR 130 Two-Dimensional Design (3 crs.)

Fundamental elements and principles of two-dimensional design, including color, shape, line, texture, balance, space, and the organization of these elements in a work of art are studied through studio exercises. Six hours per week.* Satisfies the GER in Artistic Modes of Expression (Studio course). *Either semester*

AR 135-136 Freshman Honors Colloquium (1 cr. each semester)

Freshman Honors Colloquium in Art allows exceptionally able students to explore a challenging topic in small classes under close faculty supervision. Colloquia meet once a week for fifty minutes and culminate in a paper or artistic project which provides the major part of the grade. Open to All-College Honors students and to others at the discretion of the instructor. Topics vary from semester to semester. *(Prerequisite: consent of the instructor) AR 135 fall semester, AR 136 spring semester*

* additional fee required

*School of Arts & Sciences***AR 140 Three-Dimensional Design (3 crs.)**

Studio projects are concerned with the elements and composition of form and mass in three-dimensional space, including aspects of media, surfaces and dynamics of interacting forms and space. Six hours per week.* Satisfies the GER in Artistic Modes of Expression (Studio course). *Either semester*

AR 216 Basic Photography (3 crs.)

This course examines the historical foundations of photography and the fundamentals of photographic techniques such as lenses, lighting, filters and exposure. Through regular shooting assignments in black and white, students develop an ability to appreciate photographic technology and visual aesthetics by making and appraising their own photographs. Students must have access to an adjustable camera. A gallery/museum visit is assigned.* Satisfies the GER in Artistic Modes of Expression (Studio course). *Either semester*

AR 225 Drawing II (3 crs.)

Advanced study of drawing style and technique with emphasis on the human figure. Six hours per week.* (*Prerequisite: AR 125 or consent of the instructor*) *Either semester*

AR 230 Painting I (3 crs.)

Basic skills, picture organization, and painting techniques applied to assigned problems. Field trips to museums and galleries. Six hours per week.* (*Prerequisite: AR 125 and AR 130 or consent of the instructor*) *Either semester*

AR 235 Watercolor Painting I (3 crs.)

Development of transparent watercolor techniques and pictorial composition. Six hours per week.* (*Prerequisite: AR 125 or AR 130*) *Either semester, offered once each year*

AR 240 Sculpture I (3 crs.)

Design experimentation with traditional and new problems in a wide range of media. Six hours per week.* (*Prerequisite: AR 140 or consent of the instructor*) *Either semester*

AR 255 Printmaking I (3 crs.)

A basic introduction to the fundamentals of the various printmaking processes, intaglio, lithography, silkscreen and relief. Six hours per week.* (*Prerequisite: AR 125 and AR 130 or consent of the instructor*)

AR 260 Introduction to Graphic Design (3 crs.)

Introduction to graphic design concepts and creative development. The application of design principles to specific projects dealing with typography, package design, visual design and layout. Six hours per week.* (*Prerequisite: AR 130*) *Either semester*

AR 270 Ceramics I (3 crs.)

Introduction to materials and techniques including handbuilding, wheel work, decorating, and firing. Six hours per week.* *Either semester*

AR 273 Glass I (3 crs.)

An exploration of the technical, traditional and contemporary, and aesthetic possibilities of glass: copper foil, lead came work, fusing, slumping and enamels. Six hours per week.* (*Prerequisite: AR 130 or consent of the instructor*) *Either semester*

* additional fee required

AR 280 Metals I (3 crs.)

Basic design, construction, and forming techniques. Jewelry, constructed forms, sculpture. Six hours per week.* *Either semester*

AR 286-287 Sophomore Honors Colloquium (1 cr. each semester)

Sophomore Honors Colloquium in Art allow exceptionally able students to explore a challenging topic in small classes under close faculty supervision. Colloquia meet once a week for fifty minutes and culminate in a paper or artistic project which provides the major part of the grade. Open to All-College Honors students and to others at the discretion of the instructor. Topics vary from semester to semester.* (*Prerequisite: consent of the instructor*) *AR 286 fall semester; AR 287 spring semester*

AR 290 Weaving I (3 crs.)

Introduction to traditional and contemporary weaving and related techniques. Assigned projects stress the aesthetic combined with the technical considerations of fiberwork. Six hours per week.* *Either semester*

AR 315 Drawing/Painting: Coastal Maine Workshop (3 crs.)

A two-week in-residence workshop in coastal Maine where shorelines, ocean, woods, and local villages interact to provide an aesthetic unique to the region. Drawing and/or painting activities will have a particular relationship to the natural surroundings. May be taken twice for a total of 6 credits.* *Offered summers only*

AR 316 Intermediate Photography (3 crs.)

This course is for those students who have a basic working knowledge of B&W photography. The student will increase visual awareness through regular shooting assignments and critiques. Included are an introduction to the Zone System, the relationship between exposure, film development and the printing process, print toning, controlling contrast, print finishing, visual composition, and self-critiquing. The student will need an adjustable camera. A hand-held light meter, tripod, and cable release are suggested. Six hours per week.* (*Prerequisite: AR 216 or consent of the instructor*) *Either semester*

AR 318 Photography Techniques (3 crs.)

The student will acquire and practice advanced photography skills. Techniques such as proper print finishing, print toning, preparation of black and white and color slides, use of the copy stand and the fundamentals of color printing are included. This course is recommended for only those students who have taken a basic photography course or its equivalent. Six hours per week.* (*Prerequisite: AR 216 and consent of the instructor*) *Either semester*

AR 319 Field Experience in Photography (3 crs.)

During the semester, the students will be taken on a series of field trips. While on location, the instructor will assist students in determining good composition, solving problems related to light measurement and determining correct exposure under a variety of conditions. Emphasis will be placed on regular shooting assignments in the field and critiques which will be held on campus or at a suitable off-campus location. Students must have access to an adjustable camera, a tripod, a cable release, and a gray card. Although not necessary, it is desirable for the student to have a hand-held light meter.* (*Prerequisite: AR 216 or consent of the instructor*) *Offered evenings and summers only.*

AR 325 Advanced Drawing (3 crs.)

Advanced projects will be undertaken in chosen media under direct supervision of a faculty member. This course may be taken three times. Six hours per week.* (*Prerequisite: AR 125, AR 225, and consent of the instructor*) *Either semester*

AR 330 Painting II (3 crs.)

Advanced projects will be planned according to the individual's stylistic development. Six hours per week.* (*Prerequisite: AR 230 or consent of the instructor*) *Either semester*

AR 331 Color Studio (3 crs.)

Color theories will be explored through practical exercises. Topics covered in the course include color wheel systems, the visual properties of color, color mixing in theory and practice, optical color effects, subjective color, and color schemes and harmonies, as well as the theories of Seurat, Kandinsky, Albers, and Goethe. Six hours per week.* (*Prerequisite: AR 130*)

AR 335 Watercolor Painting II (3 crs.)

Advanced work in transparent watercolor planned according to the individual's stylistic development. Six hours per week.* (*Prerequisite: AR 235 or consent of the instructor*) *Offered once each year*

AR 338/339 Honors Tutorial in Art (3 crs. each semester)

Special topics in art. Open to All-College and Departmental Honors students. Three hourly meetings weekly.* (*Prerequisite: consent of the Departmental Honors Committee*)

AR 340 Sculpture II (3 crs.)

Advanced projects in design and media. Six hours per week.* (*Prerequisite: AR 240 or consent of the instructor*) *Either semester*

AR 351 Printmaking II: Intaglio (3 crs.)

Techniques and aesthetic considerations of etching, engraving, aquatint, and related media, with emphasis on understanding the technical processes of graphic image making. Six hours per week.* (*Prerequisite: AR 225 or consent of the instructor*) *Either semester*

AR 352 Printmaking II: Silkscreen (3 crs.)

An introduction to traditional and innovative serigraph methods: glue, tusche, paper, cut film and photographic stencil. Six hours per week.* (*Prerequisite: AR 225 or consent of the instructor*) *Either semester*

AR 353 Printmaking II: Lithography (3 crs.)

An exploration of the technical and aesthetic possibilities of lithography in black and white and color. Stone lithography, metal plates and paper plates will be utilized. Six hours per week.* (*Prerequisite: AR 225 or consent of the instructor*) *Either semester*

AR 354 Printmaking II: Relief (3 crs.)

Techniques and aesthetic considerations of woodblock, wood engraving, linocut, and related media, with emphasis on understanding the technical processes of graphic image making. Six hours per week.* (*Prerequisite: AR 225 or consent of the instructor*) *Fall semester*

AR 360 Business Issues for Visual Artists (6 crs.)

The business and professional side of art, and the pursuit and management of a career in art. A study of galleries, museums, and commercial art fields, dealing with aspects of exhibiting and selling work, and the development of relevant business skills. Includes field trips and guest speakers. *Offered spring semester*

AR 361 Graphic Design II (3 crs.)

A more advanced study of graphics, typography, and layout design. Emphasizing the integration of typography and visual imagery to specific assignments. Six hours per week.* (*Prerequisite: AR 260*) *Offered once each year*

AR 362 Graphic Design III (3 crs.)

Advanced study in design. Dealing with the integration of illustration, design and typography to specific projects the designer could be expected to work in a studio, agency, or in-house design situation. Two and three dimensional areas are explored. Six hours per week.* (*Prerequisite: AR 361*) *Offered once each year*

AR 364 Interior Design (3 crs.)

Form and function of contemporary domestic and commercial spaces. Studio and field experiences related to problem analysis, construction techniques and materials. Six hours per week.* *Offered once every three years*

AR 365 Computer Generated Illustration (3 crs.)

The course will offer the student the opportunity to learn the capabilities of the Macintosh computer for desktop publishing as well as training in the creation of new bit mapped and postscript fonts using Fontographer and Fontastic. The student will also learn to use such programs as Typestyler and Letra Studio for the layout and manipulation of type. No prior computer knowledge is required.* (*Prerequisite: AR 130 or consent of the instructor*)

AR 366 Desktop Publishing and Typography (3 crs.)

Working with the Macintosh computer, students will use both digitized images and paint programs to express their ideas. Emphasis will be on understanding program capabilities, technical aspects of computer use as well as personal expression. Six hours per week.* (*Prerequisite: AR 260 or consent of the instructor*)

AR 370 Ceramics II: Advanced Projects & Techniques (3 crs.)

Advanced projects and techniques. Six hours per week.* (*Prerequisite: AR 270*) *Either semester*

AR 371 Wheel Throwing (3 crs.)

Advanced projects and experience on the potter's wheel, and aesthetics of ceramic design. Six hours per week.* (*Prerequisite: AR 270 or consent of the instructor*) *Either semester*

AR 372 Clay and Glazes (3 crs.)

Advanced work in the chemistry and compounding of clay and glaze materials. Six hours per week.* (*Prerequisite: AR 270 or consent of the instructor*) *Either semester*

AR 373 Glass II (3 crs.)

Projects will be undertaken under direct supervision of a faculty member to develop techniques included in Glass I, with the addition of

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slumping, casting, and sand blasting. Six hours per week.* (*Prerequisite: AR 273*) Offered once each year

AR 380 Metal Design II (3 crs.)

Advanced problems and techniques. Six hours per week.* (*Prerequisite: AR 280 or consent of the instructor*) Either semester

AR 381 Advanced Jewelry Design (3 crs.)

Specialized techniques for the design and creation of jewelry in precious metals, and experimental construction techniques with these metals. Six hours per week.* (*Prerequisite: AR 280 or consent of the instructor*) Either semester

AR 390 Weaving II (3 crs.)

Advanced problems and techniques. Six hours per week.* (*Prerequisite: AR 290 or consent of the instructor*) Either semester

AR 416 Expressive Photography (3 crs.)

During the semester students will thoroughly study photography as an expressive medium. Topics will include personal and impersonal expression, photographic styles, street photography, scenic photography, the nude in photography, photographic abstraction, symbolism in photography, and photographic sequencing. Students will complete a portfolio of photographs that are related to the course topics. The student must have access to an adjustable camera, tripod, cable release, hand-held light meter, and a gray card. Six hours per week.* (*Prerequisite: AR 216 and AR 316 or consent of the instructor*) Either semester

AR 417 Alternative Photographic Printing Processes (3 crs.)

An introduction to the history, practice and printing of photographic negatives using alternative printing methods. Examples would be Salted Paper, VanDyke Brown, Cynotype, Kallitype, Platinum and Palladium.* (*Prerequisite: AR 216*)

AR 418 Topics in Photography (3 crs.)

Topics of current or special interest in photography. Special topics to be announced prior to registration. This course may be repeated for different topics. Six hours per week.* Either semester

AR 430 Advanced Painting (3 crs.)

Advanced projects will be undertaken in chosen media under direct supervision of a faculty member. This course may be taken three times. Six hours per week.* (*Prerequisites: AR 230, AR 330, and consent of the instructor*) Either semester

AR 435 Advanced Watercolor Painting (3 crs.)

Advanced projects will be undertaken under the direct supervision of a faculty member. This course may be taken three times. Six hours per week.* (*Prerequisite: AR 235, 335, and consent of the instructor*) Either semester

AR 440 Advanced Sculpture (3 crs.)

Advanced projects will be undertaken in chosen media under direct supervision of a faculty member. This course may be taken three times. Six hours per week.* (*Prerequisite: AR 240, 340, and consent of the instructor*) Either semester

AR 450 Advanced Printmaking (3 crs.)

Advanced projects will be undertaken in chosen media under direct supervision of a faculty member. This course may be taken three times. Six hours per week.* (*Prerequisite: AR 351, 352, 353, or 354; or consent of the instructor*) Either semester

AR 460 Advanced Graphics (3 crs.)

This course examines the application of graphic design and its visual communication to the current problems, and emphasizes the study and recognition of contemporary trends in design, color and visual images as viable means to projects assigned. Two and three dimensional areas are explored, as well as the use of multi-media techniques to project conceptual ideas. Six hours per week. This course may be taken three times for credit.* (*Prerequisite: AR 362*) Offered when needed by a number of students in upper levels

AR 463 Projects in Graphic Design (3 crs.)

This course examines the application of graphic design and its visual communication to current problems, and emphasizes the study and recognition of contemporary trends in design, color and visual images as visible means. Six hours per week.* (*Prerequisite: AR 361*)

AR 470 Advanced Ceramics (3 crs.)

Advanced projects will be undertaken in chosen media under direct supervision of a faculty member. This course may be taken three times. Six hours per week.* (*Prerequisite: AR 270, AR 370, and consent of the instructor*) Either semester

AR 473 Advanced Glass (3 crs.)

Advanced projects will be undertaken in chosen techniques under direct supervision of a faculty member. This course may be taken three times. Six hours per week.* (*Prerequisite: AR 373*) Offered once each year

AR 480 Advanced Metals (3 crs.)

Advanced projects will be undertaken in chosen media under direct supervision of a faculty member. This course may be taken three times. Six hours per week.* (*Prerequisite: AR 280, AR 380, and consent of the instructor*) Either semester

AR 485 Honors Thesis in Art (3 crs.)

This course is open to All-College and Departmental Honors students. One-hour weekly meetings with the thesis director will culminate in a thesis comprising both art works and a written corollary. With the consent of the Departmental Honors Committee and the thesis director this course may be extended into a second semester for three additional credits depending upon the scope of the project. Whether the final version of the thesis qualifies the student to graduate with honors will be determined by the Departmental Honors Committee, who will review the results as presented by the student. (*Prerequisite: AR 338, and consent of the Departmental Honors Committee*)

AR 490 Advanced Weaving (3 crs.)

Advanced projects will be undertaken in chosen media under direct supervision of a faculty member. This course may be taken three times. Six hours per week.* (*Prerequisite: AR 290, AR 390, and consent of the instructor*) Offered once each year

AR 491 Art Education Seminar (3 crs.)

Limited to seniors who will student teach in Art. Examination of various concepts in art education as well as historical and professional perspectives. Field trips, speakers, and workshops. (*Prerequisite: ED 490 or consent of the instructor*)

AR 498 Internship in Art (3-15 crs.)

A non-classroom experience designed for a limited number of junior and senior majors to complement their academic preparation. (*Prerequisite: consent of the department chairperson; formal application required*) Either semester

AR 499 Directed Study in Art (1-3 crs.)

Open to juniors and seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits. (*Prerequisite: consent of the department; formal application required*) Either semester

Other Approved Courses:

AR 291 Tapestry Weaving

AR 300 Methods and Materials in Art: Preschool, K-6

AR 310 Art and the Crafts in Special Education

AR 369 Graphics for Designing Media

AR 502 Research (credit to be arranged)

Original research undertaken by the graduate student in his field. For details, consult the paragraph entitled "Independent Study" in the Graduate School section of this catalog.

AR 503 Directed Study (credit to be arranged)

Designed for the graduate student who desires to study selected topics in a specific field. For details, consult the paragraph entitled "Independent Study" in the Graduate School section of this catalog.

AR 514 Art History Study Tour (Advanced) (3-6 crs.)

A broad range of topics in the history of art is studied in museums and architectural sites in Europe. Preparatory classwork is conducted on campus prior to travel; assignments and exams are completed upon return. This course may be taken twice with different itineraries and course topics. Offered summers and intersessions only

AR 515 Drawing/Painting: Coastal Maine Workshop (3 crs.)

A two-week in-residence workshop in coastal Maine where shorelines, ocean, woods, and local villages interact to provide an aesthetic unique to the region. Drawing and/or painting activities will have a particular relationship to the natural surroundings. This is a graduate level studio course. May be taken twice for a total of 6 credits.* (*Prerequisite: consent of the instructor*) Offered summers only

AR 518 Photography Techniques (3 crs.)

The student will acquire and practice advanced photography skills. Techniques such as proper print finishing, print toning, preparation of black and white and color slides, use of the copy stand and the fundamentals of color printing are included. This course is recommended for only those students who have taken a basic photography course or its equivalent. Six hours per week.* (*Prerequisite: AR 216 and consent of the instructor*)

* additional fee required

AR 519 Field Experience in Photography (3 crs.)

During the semester, students will be taken on a series of field trips. While on location, the instructor will assist students in determining good composition, solving problems related to light measurement and determining correct exposure under a variety of conditions. Emphasis will be placed on regular shooting assignments in the field and critiques which will be held on campus or at a suitable off-campus location. Students must have access to an adjustable camera, a tripod, a cable release, and a gray card. Although not necessary, it is desirable for students to have a hand-held light meter.* (*Prerequisite: AR 216 and consent of the instructor*)

AR 525 Graduate Drawing (3 crs.)

Graduate level course work presumes an established level of proficiency in depicting the human figure as well as a comprehensive understanding of the full range of drawing materials and processes, to include mixed media. Course activities, as they often are combined with Drawing II, may frequently involve the human form as a starting point for expanded activity toward the development of a personal style. Nurturing a unique style that respects both ideational and/or observational concepts is a primary focus within this course (repeatable three times). Every effort will be made to connect to style of drawing, past or present, as well as to luminaries within each (e.g. field trips, library research and, whenever possible, studio visits).* Either semester

AR 530 Graduate Painting (3 crs.)

In the classroom environment, students will move toward individual imagery development including exploration of new media and techniques as appropriate and supported by regular critiques by the instructor. Six hours per week.* (*Prerequisite: 6 credits in painting or consent of the instructor*) Either semester

AR 531 Color Studio (3 crs.)

Color theories will be explored through practical exercises. Topics covered in the course include color wheel systems, the visual properties of color, color mixing in theory and practice, optical color effects, subjective color, and color schemes and harmonies, as well as the theories of Seurat, Kandinsky, Albers and Goethe. Six hours per week.* (*Prerequisite: AR 130*)

AR 535 Graduate Watercolor Painting (3 crs.)

Students will explore imagery and watercolor painting techniques within the context of developing a personal working process. Six hours per week.* (*Prerequisite: 6 credits in watercolor or consent of instructor*) Either semester

AR 537 Applied Research Project (1 cr.)

In this course, students complete an applied research project which integrates theory and practice utilizing educational research format and disciplinary knowledge.*

AR 540 Graduate Sculpture (3 crs.)

A course designed to challenge the student's grasp of the function and form and its expressive potential through the study of pure form and forms in nature. The materials used are clay, plaster, wood and metal. Six hours per week.* (*Prerequisite: 6 credits in sculpture or consent of the instructor*) Either semester

*School of Arts & Sciences***AR 550 Graduate Printmaking (3 crs.)**

Printmaking for those with previous experience. Course objectives and requirements will be planned on the basis of the individual student's interests and background. Six hours per week.* (*Prerequisites: 6 credits in printmaking or consent of the instructor*) Either semester

AR 562 Graphic Design III (3 crs.)

Advanced Study in design. Dealing with the integration of illustration, design and topography to specific projects the designer could be expected to work in a studio, agency, or in-house design situation. Two and three dimensional areas are explored. Six hours per week.* (*Prerequisites: AR 361*)

AR 563 Advanced Graphic Design (3 crs.)

This course examines the application of graphic design and its visual communication to the current problems, and emphasizes the study and recognition of contemporary trends in design, color and visual images as viable means to projects assigned. Two and three dimensional areas are explored, as well as the use of multi-media techniques to project conceptual ideas. Six hours per week.* (*Prerequisite: AR 362*)

AR 570 Graduate Ceramics (3 crs.)

Work in wheel-throwing, handbuilding, sculptural ceramics, clay technology, glaze chemistry, or studio management in an individualized program depending upon the student's previous course work, abilities, and interests. Six hours per week.* (*Prerequisite: 6 credits in ceramics or consent of the instructor*) Either semester

AR 572 Clay and Glazes (3 crs.)

Advanced work in the chemistry and compounding of clay and glaze materials. Six hours per week.* (*Prerequisite: AR 270 or consent of the instructor*)

AR 573 Graduate Glass (3 crs.)

A course in glass for those with previous experience. Advanced projects will be undertaken in chosen techniques under direct supervision of a faculty member. Six hours per week.* (*Prerequisite: AR 473*) Offered once each year

AR 580 Graduate Metals (3 crs.)

Work in surface embellishment, construction, casting, and forming of non-ferrous metals. Emphasis on experimentation with new technology, materials, and techniques. Six hours per week.* (*Prerequisite: 6 credits in metal or consent of the instructor*) Either semester

AR 590 Graduate Weaving (3 crs.)

Advanced work in fiber planned in accordance with the student's prior course work and experience. Emphasis given to thorough exploration of color, design, and fiber selection in the execution of technically ambitious projects. Areas of study may include rug weaving, eight-harness double weaves, sculptural weaving and tapestry. Six hours per week.* (*Prerequisite: Six credits in weaving or consent of the instructor*)

Department of Biological Sciences

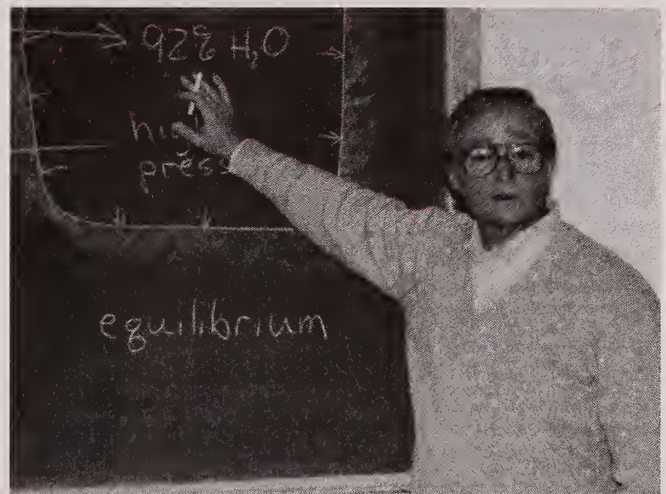
Faculty

Chairperson: Professor John Jahoda

Professors: James Brennan, Walter Hewitson,
Hardy Moore, Florian Muckenthaler,
Diane Peabody

Associate

Professors: Kevin Curry,
Doraiswami Shanmugasundaram,
Sandra Whelan



The department offers an undergraduate program leading to the degree of Bachelor of Arts or Bachelor of Science and a graduate program leading to the degree of Master of Arts in Teaching. The goal of the undergraduate program is to provide students with broad backgrounds allowing for flexibility in making career choices. Students enrolled in the graduate program have the opportunity to develop their skills and knowledge in more specialized areas.

The Department of Biological Sciences is located in the Conant Science Building. The department has ten teaching laboratories, two lecture rooms, a faculty research area, a biology museum-seminar room, a bioassay laboratory, an electron microscope laboratory, and a cell biology laboratory. The laboratories are well equipped to help students apply the theoretical principles of their courses. Equipment includes not only the basic light microscopes but also two electron microscopes; there are microtomes, a liquid scintillation counter, electrophoretic equipment, spectrophotometers and electrophysiological recording instruments. In addition there is close cooperation between the biology and chemistry departments, so that other equipment may be shared.

Located on the three acres next to the building are a 20- by 80-foot greenhouse and the Natural Science Gardens. The greenhouse and gardens support laboratory and field work and are planted with specimens of horticultural interest.

The location of the campus is a major advantage for conducting field work and ecological studies. Within an hour's drive

of the campus are such diverse habitats as bays, salt-marshes, sandy beaches, rocky shores, estuaries, bogs, freshwater ponds, streams and rivers (clean and polluted), white cedar swamps, marshes, pine groves, and hemlock groves.

The Department maintains and operates a new Watershed Access Laboratory located in the John Joseph Moakley Center for Technological Applications. The Watershed Access Laboratory is designed for use in teacher professional development in environmental education and for interdisciplinary watershed studies.

Undergraduate Programs

Each student majoring in Biology will be assigned an adviser from among the faculty of the department. Students should consult with their advisers frequently to receive academic counseling and to verify that they are completing the requirements for graduation.

Bachelor of Science

The department offers a B.S. degree program with four concentrations: Environmental Biology, Biomedical, Cell/Molecular Biology, and General Biology. All B.S. students are required to take a core consisting of General Biology I and General Biology II, Cell Biology, Ecology, Genetics and one course in Physiology. In addition to the core requirements

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each B. S. student will select one of the four concentrations in consultation with the department. The students will be assigned an appropriate faculty adviser within the department. Each student will confer with his/her adviser in planning the student's program of study appropriate to the concentration that the student has selected.

The **Environmental Biology** concentration includes course work in wetlands biology, biomonitoring, freshwater ecology and marine mammal biology. This program encourages students to use their electives to develop a diversified background of skills in earth science, geography and chemistry to complement their environmental interest and open future opportunities for internships and careers. Cooperative programs with community environmental monitoring organizations like the Taunton River Watershed Alliance allow students to gain practical experience while investigating actual environmental problems.

The **Biomedical** concentration features course work in Human Anatomy and Physiology, Histology, Immunology, Microbiology, Virology and Embryology. Internship opportunities are available in local hospitals and research laboratories.

The **Cell/Molecular Biology** concentration allows students to focus their study of biological mechanisms at the cellular and molecular level. Courses available include: Biochemistry, Electron Microscopy, and Neurobiology. This concentration is designed for students who may want to pursue graduate studies in molecular or cellular biology and for those who seek a career in cell/molecular biology or biotechnology research.

The **General Biology** concentration allows for a less specialized program of study and is designed for students needing a broader background in biology. This program can be tailored to the student with individualized interests or can be designed to provide a broad background in biology. The general biology concentration is recommended for students considering teaching as a career.

Bachelor of Science in Biology Core Courses:

BI 121-122 General Biology I and II
BI 200 Cell Biology
BI 225 Ecology
BI 321 Genetics
One course in Physiology

Cognates:

CH 131-132 General Chemistry I and II
CH 343-344 Organic Chemistry I and II

MA 141 Elements of Calculus I
PH 181-182 Elements of Physics I and II

Environmental Concentration

Biology Core Courses in addition to the following:

Required Courses:

BI 341 Plant Physiology
BI 428 Microbiology
MA 142 Elements of Calculus II or a course in applied statistics
CS 105 or CH 100 Computer Science in Chemistry

Electives (12 credits from the following list):

BI 240 Plant Morphology
BI 284 Invertebrate Zoology
BI 325 Ichthyology
BI 326 Marine Biology
BI 327 Wetlands Biology
BI 370 Vertebrate Zoology
BI 372 Animal Behavior
BI 373 Animal Physiology
BI 408 The Biology of Marine Mammals
BI 420 Limnology
BI 426 Biomonitoring and Water Pollution
BI 444 Biology of Fungi

Electives in Other Disciplines

(6 credits from the following list):

ES 240 Hydrology
ES 305 Physical Oceanography
ES 306 Biological Oceanography
ES 440 Contaminant Hydrogeology (new course)
GE 317 Air Photo Interpretation/Remote Sensing
GE 417 Satellite Image Processing Applications to the Environment
GE 419 Geographical Information Systems
ID 350 Soil Identification and Interpretation for Land Use

Internship/Research

Biology majors concentrating in Environmental Biology should strive to qualify for a 3 credit internship or research experience as part of their concentration electives. This could range from volunteer experience through the Student Conservation Association, paid internships with regulatory agencies like Mass. D.E.P. or the National Park Service, or research with professional investigators at Bridgewater State College through Undergraduate Biological Research (BI 497). Students interested in developing a field experience through Internship in Biology (BI 498) must meet the following criteria to be considered:

- a. completed at least 54 credits and at least two semesters of biology at Bridgewater State College.
- b. maintained a minimum 2.5 cumulative GPA and a 2.7 GPA in biology.
- c. filed a completed application form with the department chairperson by the middle of the semester prior to when the field experience is to be undertaken.
- d. located a faculty adviser who will oversee the specific internship.

Internship applications will be screened by the department and sent to the dean for approval. The approved form must be received by the Office of Student Records and Registration in order to enroll for internship credits. No more than three (3) credits of BI 498 can be used toward concentration electives.

Biomedical Concentration

Biology Core Courses in addition to the following:

Required Courses:

BI 251-252 Human Anatomy and Physiology I and II

A course in applied statistics

Electives

(12 credits at the 300 or 400 level including *at least 3 courses from the following list*. See course offerings in this department for all additional 300-400 level courses):

BI 371 Histology

BI 375 Immunology

BI 376 General Endocrinology

BI 382 Comparative Chordate Anatomy

BI 428 Microbiology

BI 430 Embryology

BI 434 Biological Electron Microscopy

BI 450 Virology

BI 472 Human Genetics

BI 482 Neurobiology

Cell/Molecular Concentration

Biology Core Courses in addition to the following:

Required Courses:

BI 341 Plant Physiology

or

BI 373 Animal Physiology

BI 428 Microbiology

MA 142 Elements of Calculus II or a course in applied statistics or computer science

Electives

(12 credits at the 300 or 400 level including *at least 3 courses from the following list*. See course offerings in this department for all additional 300-400 level courses):

BI 320 Biochemistry

BI 350 Molecular Biology

BI 375 Immunology

BI 410 Techniques of Molecular Biology

BI 433 Cytology

BI 434 Biological Electron Microscopy

BI 450 Virology

BI 482 Neurobiology

General Concentration

Biology Core Courses in addition to the following:

Required Courses:

BI 341 Plant Physiology

BI 373 Animal Physiology

BI 428 Microbiology

MA 142 Elements of Calculus II or a course in applied statistics or computer science

Electives: (Three courses at or above the 200 level totaling up to at least nine credits. See course offerings in this department for all additional courses).

Minor in Secondary (High School) or Middle School Education

Students may minor either in Secondary (High School, grades 9-12) or Middle School (grades 5-9) Education. Successful completion of either of these programs will lead to Massachusetts Provisional with Advanced Standing Teacher Certification. Please refer to the Department of Secondary Education and Professional Programs for specific teacher certification and program requirements. Students who wish to obtain a minor in Secondary Education with a view toward certification in Biology must take the General Concentration and the following as part of their biology electives:

BI 422 Biological Evolution

or

BI 118 Evolution (substitutes for one 200 level elective)

BI 382 Comparative Chordate Anatomy

or

BI 284 Invertebrate Zoology

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Students minoring in education must refer to the Department of Secondary Education and Professional Programs for specific teacher certification and program requirements. Students preparing to teach at the secondary level must complete the B.S. degree in biology.

"Teacher of General Science" Option

This option is available for students who have met the requirements for Teacher of Biology through Bridgewater State College and wish to add Teacher of General Science certification through the new field option of the state regulations. Students who elect this option may take the course listed below and request an independent transcript review through the Massachusetts Department of Education for the General Science field.

CH 131 - 132 General Chemistry I-II*

CH 343 - 344 Organic Chemistry I-II*

PH 181 - 182 Elements of Physics I-II*

ES 100 Physical Geology and an additional 3 credit earth science course (to be chosen with the approval of the earth science department)

*These courses are already required as part of the major

Bachelor of Arts

The B.A. degree represents a minimum training for a biology major and would be adequate for someone who wishes to be conversant with the subject and use that knowledge in another career goal. Examples of such careers could be in elementary education, science writing, scientific illustration, technical sales, work for a publishing company or similar vocations.

The B.A. degree requires a minimum of 12 courses with the following specifications:

- BI 121-122 General Biology I, II
 - two Biology courses at the 200 level
 - two Biology courses at the 300 level
 - two Biology courses at the 400 level
 - two additional Biology courses at or above the 200 level
- CH 131-132 General Chemistry I-II

Double Major with Elementary and Early Childhood Education or Special Education

Students may choose a double major in biology and elementary and early childhood education or special education. Appropriate advising materials are available in the biology department office.

Minor in the Biological Sciences

A minor consists of a minimum of 18 credits in biology. Students must take BI 121 and BI 122 Biology I and II or their equivalent and four additional courses in biology at or above the 200 level planned in consultation with the chairperson of biological sciences.

Honors Program

The Department of Biological Sciences offers a Departmental Honors Program in Biology. This program provides an opportunity for well-qualified biology majors to conduct independent research in biology. Contact the Department of Biological Sciences for further information concerning eligibility and application.

Undergraduate Research

The Department of Biological Sciences provides the opportunity for undergraduates to participate in a research experience which is becoming an increasingly necessary component of the undergraduate experience in biology. This program involves one research project a semester in which a faculty member directs and supervises a small number of undergraduates involved in the research. This is a research team approach with the faculty member working with the undergraduates in a mentoring situation. Undergraduate research provides background in biology that course work alone cannot. The department does involve some research in a number of its courses, but these do not allow the commitment of time and effort that the Undergraduate Research course allows. Students in this course have the opportunity to work as a member of a research team with a faculty member on a real research problem.

Graduate schools, professional schools and potential employers look for research experience in their applicants. A track record in research shows that you not only know about science, but that you can do science. The department developed this course specifically to give our undergraduates the opportunity to develop a track record in research that will provide a foundation for research later on in their career. The department highly recommends this experience for all undergraduates. Topics will vary from semester to semester. All topics will provide the opportunity to experience and understand the methodology of scientific research.

Graduate Programs

Master of Arts in Teaching Clinical Master's Program Biology

Certification Program (Standard Level)

This master's degree program is designed for persons who have provisional certification with advanced standing in biology and are seeking standard certification in the area of biology (9-12, 5-9). (Students needing provisional certification with advanced standing should refer in this catalog to the program entitled "Post Baccalaureate Program: Provisional Certification With Advanced Standing for Secondary (Subject Areas: 9-12) and Middle Level (Subject Areas: 5-9) Teachers" under the *Department of Secondary Education and Professional Programs*.)

For information regarding application procedures and admission standards, students should consult the *Graduate School* section of this catalog.

Students seeking standard certification should consult the section of this catalog entitled *School of Education and Allied Studies* for information pertaining to professional certification, admission to and retention in Professional Education, as well as important institutional deadlines.

GP 501 Graduate Program Planning

All accepted students must enroll under the direction of their adviser in GP 501 Graduate Program Planning, which is described under "Graduate Adviser and Program Planning" in the *Graduate School* section of this catalog. As part of their program, students must satisfactorily complete the following curriculum:

Education Core

- ED 530 Research Methods
- ED 531 The Curriculum Experience
- ED 532 Critical Issues - Educators and Society
- ED 533 Effective Practices in Human Development & Learning
- ED 534 Clinical Experience (6 crs.)
- ED 537 Applied Research Project (2 crs.)

(Course descriptions for ED 530-537 are provided in the *School of Education and Allied Studies* section of this catalog.)

Discipline Area Requirements

M.A.T. students are expected to have, or acquire in addition to degree requirements, an appropriate background of college level courses, to be determined by the department.

Required Courses:

- BE 511 Advanced Biological Topics and Techniques
- BE 512 Advances in Biological Sciences Seminar
- BE 513 Advances in Cell/Molecular Biology
- BE 514 Advances in Biomedical/Physiological Biology
- BE 515 Advances in Ecological/Environmental Biology
- BE 537 Applied Research Project (one credit)

BE 511 - BE 515 will focus on outcomes. Teachers will be expected to develop a knowledge base appropriate to the subject matter and to develop the skills and techniques needed for laboratory or field work in the field study. Teachers will demonstrate how the knowledge base and skills obtained in the course can be applied to the K-12 classroom in the MAT Research course (BE 537).

Subject matter for BE 511 - BE 515 will be addressed by the requirements of graduate level companion courses designated by the department. Graduate students enrolled in the BE 500 level courses will receive additional assignments and exam questions for evaluation of graduate level mastery of the subject and a graduate level paper will be required. Students may take BE 500 level graduate courses that cover subject matter that the student has previously taken either at the graduate or undergraduate level.

Each student will be required to pass a comprehensive examination prior to being eligible to receive the Master of Arts in Teaching degree.

Students who successfully complete the above curriculum are eligible for standard certification.

Master of Arts in Teaching Biology

Program for Teachers with Standard Certification

This program is designed for secondary and middle level subject area teachers who have standard certification.

All accepted students must enroll under the direction of their adviser in GP 501 Graduate Program Planning, which is described under "Graduate Adviser and Program Planning" in the *Graduate School* section of this catalog. As part of their program, students must satisfactorily complete the following curriculum:

- GP 501 Graduate Program Planning
- ED 530 Research Methods
- ED 531 The Curriculum Experience

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ED 532 Critical Issues - Educators and Society
ED 533 Effective Practices in Human Development & Learning

(Course descriptions for ED 530 - 533 are provided in the *School of Education and Allied Studies* section of this catalog.)

Discipline Area Requirements

M.A.T. students are expected to have, or acquire in addition to degree requirements, an appropriate background of college level courses, to be determined by the department.

Required Courses:

BE 511 Advanced Biological Topics and Techniques
BE 512 Advances in Biological Sciences Seminar
BE 513 Advances in Cell/Molecular Biology
BE 514 Advances in Biomedical/Physiological Biology
BE 515 Advances in Ecological/Environmental Biology
BI 503 Directed Study or other approved course

BE 511 - BE 515 will focus on outcomes. Teachers will be expected to develop a knowledge base appropriate to the subject matter and to develop the skills and techniques needed for laboratory or field work in the field study.

Subject matter for BE 511 - BE 515 will be addressed by the requirements of graduate level companion courses designated by the department. Graduate students enrolled in the BE 500 level courses will receive additional assignments and exam questions for evaluation of graduate level mastery of the subject and a graduate level paper will be required. Students may take BE 500 level graduate courses that cover subject matter that the student has previously taken either at the graduate or undergraduate level.

Successful completion of a comprehensive examination is also required.

Course Offerings*

A baccalaureate degree from an accredited college or university is a prerequisite for all graduate courses in biology.

BI 100 General Principles of Biology (3 crs.)

The biological principles at the cellular and organismal levels are discussed. The topics covered include cell structure, respiration, photosynthesis, osmosis, enzymes, DNA and protein synthesis, genetics, ecology and evolution. Two hours of lecture and one two-hour laboratory period weekly. Satisfies the GER in Physical and Biological Sciences. *Either semester*

BI 102 Introduction to Zoology (3 crs.)

This course considers the zoological aspects of biology with emphasis on human systems. Topics include the chemical basis of life, the structure and physiology of cells, tissues, organs, and organ-systems, embryonic development, heredity, evolution and ecology. Two hours of lecture and one two-hour laboratory period weekly. Satisfies the GER in Physical and Biological Sciences. *Either semester*

BI 110 Biology: A Human Approach (3 crs.)

This course examines biological principles as they apply to human biology and to the role of humans in nature. A study of different levels of organization leads to analysis of the structure and function of the major systems of the human body. Topics will include human heredity, evolution and ecology. Satisfies the GER in Physical and Biological Sciences (non-lab course). *Spring semester*

BI 111 Human Heredity (3 crs.)

The principles of genetics which are important to an understanding of the hereditary mechanism in humans. 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. Satisfies the GER in Physical and Biological Sciences (non-lab course) *Spring semester*

BI 112 Biology and Human Thought (3 crs.)

The evolutionary development of the brain, its organization and functions will be discussed. Major emphasis will be devoted to neuronal cell conduction and transmission and the cellular basis for movement, sensory activity, emotions, memory and brain disorders. Satisfies the GER in Physical and Biological Sciences (non-lab course). *Fall semester*

BI 113 Fundamentals of Biology (3 crs.)

The conceptual foundations of modern life science are introduced through a detailed historical study of five core subjects: cell biology, genetics, development, evolution and ecology. The current status of knowledge and methodology will be discussed. Satisfies the GER in Physical and Biological Sciences (non-lab course). *Either semester*

BI 114 Horticulture (3 crs.)

This course examines the interactions among plant structure, function and environmental factors as they relate to the growth, propagation and utilization of cultivated plants. Satisfies the GER in Physical and Biological Sciences (non-lab course). *Fall semester*

BI 115 Microbial World and You (3 crs.)

This course studies microorganisms (bacteria, algae, fungi, protozoa, and viruses) and their interactions with humans. The principles and applications of environmental, industrial and medical microbiology are discussed. Satisfies the GER in Physical and Biological Sciences (non-lab course). *Either semester*

BI 117 The Biological Environment (3 crs.)

The ecological relationship between humanity and other forms of life is discussed in biological terms. Topics dealing with humanity's past, present and future role in the ecosystem are discussed and might include: energy, biogeochemical cycles, population dynamic, endangered species, climate change, and waste management. Satisfies the GER in Physical and Biological Sciences (non-lab course). *Fall semester*

BI 118 Evolution (3 crs.)

The theory of evolution with its supporting evidence and mechanisms of change is presented. Satisfies the GER in Physical and Biological Sciences (non-lab course). *Offered alternate years*

BI 121 General Biology I (4 crs.)

An introduction to the concepts of molecular and cellular biology, reproduction, metabolism, genetics, and mechanisms of evolution. Three hours of lecture and one two-hour laboratory weekly.

BI 122 General Biology II (4 crs.)

A survey of the major groups of organisms, their morphology, physiology, evolution and ecology. Three hours of lecture and one two-hour laboratory weekly. (*Prerequisite: BI 121 or equivalent*)

BI 135-136 Freshman Honors Colloquium (1 cr. each semester)

Freshman Honors Colloquia in Biology. This course allows exceptionally able students to explore a challenging topic in small classes under close faculty supervision. Colloquia meet once a week for fifty minutes and culminate in a paper or scientific project which provides the major part of the grade. Open to All-College Honors students and to others at the discretion of the instructor. The minimum enrollment is two and the maximum is twelve. Topics vary from semester to semester. (*Prerequisite: consent of the instructor*) *BI 135 Fall semester, BI 136 Spring semester*

BI 200 Cell Biology (3 crs.)

This course is an introduction to the basic concepts in cell structure and cell physiology. Topics will include the function of cellular organelles, enzymes and cell metabolism, the synthesis of macromolecules, and the flow of genetic information in the cell, including transcription and translation. Two hours of lecture and one two-hour laboratory period weekly. (*Prerequisite: BI 121 or equivalent CH 131-132 or CH 141-142; or consent of the instructor*) *Spring semester*

BI 225 Ecology (3 crs.)

Fundamentals of the interactions of populations, communities and ecosystems are investigated in lecture. Students will be acquainted with techniques of data gathering and analysis in ecology. Laboratory trips will allow students to investigate ecological communities in south-eastern Massachusetts. One all day field trip will be required as part of the lab. Two hours of lecture and one two-hour laboratory period weekly. (*Prerequisites: BI 121 and BI 122 or their equivalents; CH 131-132 or their equivalents*)

* See page 73 for general information regarding course offerings.

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BI 240 Plant Morphology (3 crs.)

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 will be covered. Two hours of lecture and one two-hour laboratory period weekly. (Prerequisite: BI 121-122 equivalent or consent of the instructor) Fall semester

BI 251 Human Anatomy and Physiology I (4 crs.)

An intensive study of the structure and function of integumentary skeletal, muscular systems, neuronal, peripheral, central and autonomic nervous systems, and the special senses. Three hours of lecture and one two-hour laboratory per week. (Prerequisite: BI 100 or BI 122, or permission of the instructor.)

BI 252 Human Anatomy and Physiology II (4 crs.)

An intensive study of the structure and function of the hormonal, circulatory, lymphatic, respiratory, digestive, and metabolism and reproductive systems. Three hours of lecture and one two-hour laboratory per week. (Prerequisite: BI 251 or permission of the instructor.)

BI 280 Human Physiology (3 crs.)

General physiological principles and their application to the human body. Two hours of lecture and one two-hour laboratory period weekly. (Prerequisite: BI 102 or consent of the instructor) Either semester

BI 284 Invertebrate Zoology (3 crs.)

The biology of invertebrates from a phylogenetic standpoint with emphasis on taxonomy, morphology, physiology, development, and natural history. Representatives of the principal classes of each phylum are studied. Two hours of lecture and one two-hour laboratory period weekly. (Prerequisite: BI 121-122 equivalent, or consent of the instructor) Spring semester

BI 286-287 Sophomore Honors Colloquium (1 cr. each semester)

Sophomore Honors Colloquia in Biology allow exceptionally able students to explore a challenging topic in small classes under close faculty supervision. Colloquia meet once a week for fifty minutes and culminate in a paper or scientific project which provides the major part of the grade. Open to All-College Honors students and to others at the discretion of the instructor. The minimum enrollment is two and the maximum is twelve. Topics vary from semester to semester. (Prerequisite: consent of the instructor) BI 286 fall semester, BI 287 spring semester

BI 320 Biochemistry (3 crs.)

A study of the characteristics and metabolism of biological molecules. Topics include enzyme structure and function; techniques of enzyme study; anabolic and catabolic pathways and their regulation; and applications of thermodynamics and kinetics to biological systems. (Prerequisite: BI 200; CH 131-132; MA 141; or consent of the instructor. BI 341 or BI 373 recommended.) Either semester

BI 321 Genetics (3 crs.)

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 hours of lecture and one two-hour laboratory period weekly. (Prerequisite: BI 121-122 or equivalent, BI 240; CH 131-132; MA 141; or consent of the instructor) Fall semester

BI 325 Ichthyology (3 crs.)

Lecture presentations in ichthyology will examine the key aspects of anatomy, sensory systems, organ systems, physiology and ecology of fishes. Emphasis will be placed on identification of New England freshwater and coastal fishes. Field investigations will focus on the behavior and ecology of the fish populations in the Taunton River system. Laboratory sessions will also include techniques of age and growth analysis for assessment of local fish populations, and basic identification of external and internal anatomy of various teleosts. Two hours of lecture and one two-hour laboratory per week. (Prerequisites: BI 122 or equivalent, and CH 131-132. Recommended: Ecology or an equivalent.)

BI 326 Marine Biology (3 crs.)

An introduction to the marine ecosystems with emphasis on factors involved in the growth, diversity, and distribution of populations occupying the marine habitats of the eastern Atlantic coast. Two hours of lecture and one two-hour laboratory period weekly. (Prerequisite: BI 122 or equivalent, or consent of the instructor) Offered once in three years

BI 327 Wetlands Biology (3 crs.)

A course that considers the values, functions, protection and recognition of freshwater wetlands. Two lecture/laboratory meetings weekly, each two hours in length. (Prerequisite: An introductory course in biology or consent of the instructor)

BI 338-339 Honors Tutorial (3 crs. each semester)

Special topics in biology. Open to All-College and Departmental Honors students. Three hourly meetings weekly. (Prerequisite: consent of the department) BI 338 fall semester, BI 339 spring semester

BI 341 Plant Physiology (3 crs.)

The growth and function of plants including cellular physiology, water relations, respiration, photosynthesis, nutrition, growth regulation, and the influence of environment. Two hours of lecture and one two-hour laboratory period weekly. (Prerequisite: BI 200; BI 240; CH 131-132 or CH 141-142; or consent of the instructor) Fall semester

BI 350 Molecular Biology (3 crs.)

This course will examine the molecular nature of biological processes. The structure and function of biological macromolecules will be examined along with the research methodologies and techniques currently utilized in this field. Emphasis will be placed on the mechanisms which regulate the flow of genetic information in both cells and viruses. (Prerequisites: BI 200; BI 321) (Does not satisfy the department's MA/MAT program)

BI 371 Histology (3 crs.)

A study of the microscopic anatomy of mammalian tissues and organs with emphasis on human materials. The study of prepared slides in the laboratory will serve as a basis for discussion of the interdependence of structure and function in the animal body. Two hours of lecture and one two-hour laboratory period weekly. (Prerequisite: BI 121-122; CH 131-132 or consent of the instructor) Offered alternate years

BI 372 Animal Behavior (3 crs.)

This introduction to the study of animal behavior from the biological viewpoint covers such topics as drives and reflexes, animal communication, biological rhythms and migration. Emphasis will be placed, where applicable, on the relationships between animal and human

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behavior. (Prerequisite: BI 121-122 or equivalent, or consent of the instructor) Offered alternate years (formerly BI 272)

BI 373 Animal Physiology (3 crs.)

Physiological principles concerned in irritability, contraction, circulation, gas exchange, excretion, and hormonal regulation. Two hours of lecture and one two-hour laboratory period weekly. (Prerequisite: BI 121-122; CH 131-132 or equivalent; or consent of the instructor) Spring semester

BI 375 Immunology (3 crs.)

The immune system and its components, including their structure, function, genetics and ontogeny. (Prerequisite: BI 321; BI 252 or BI 280 or BI 371 or BI 373) Offered alternate years, Spring semester

BI 376 General Endocrinology (3 crs.)

A survey of the morphology, ultrastructure, and physiology of endocrine glands and their hormones, in animals with special emphasis on humans, will be presented. The course will discuss the hormonal action of their control on the cellular and organ level. (Prerequisite: BI 122) Offered alternate years, Fall semester

BI 382 Comparative Chordate Anatomy (3 crs.)

An ontogenetic and phylogenetic survey of chordate gross anatomy, supplemented by laboratory dissections of representative species. Emphasis is placed on ecomorphology and the changes in chordate structure and biology that comprise their evolution, with an analysis of the significance of these changes in light of our modern knowledge of evolution. Two hours of lecture and one two-hour laboratory period weekly. (Prerequisite: BI 121-122 or equivalent, or consent of the instructor) Spring semester (formerly BI 282)

BI 401 Ecology of Aquatic Insects (3 crs.)

Factors affecting the population size and distribution of aquatic insects are explored through lecture, laboratory and field investigations. Students will learn the major groups of aquatic insects from field collections made in the local streams, rivers, lakes and bogs of southeastern Massachusetts. Weekly field trips, a collection and a project report are required. One hour of lecture and one three-hour laboratory per week. (Prerequisite: BI 121-122; BI 225; CH 131-132 or their equivalents; at least junior level status in biology or permission of the instructor.)

BI 408 The Biology of Marine Mammals (3 crs.)

An introductory course to the study of marine mammals. Topics to be covered include the evolution, classification, distribution, life histories, anatomy, morphology, behavior, and ecology of marine mammals. We will consider the role of marine mammals in marine ecosystems and the interaction between marine mammals and humans. (Prerequisites: BI 122 or equivalent or consent of the instructor) (formerly BI 328)

BI 410 Techniques of Molecular Biology (3 crs.)

This laboratory course will focus on techniques in recombinant DNA technology, as well as introduce students to procedures utilized in animal cell culture and protein analysis. One hour of lecture and four hours of laboratory weekly. (Prerequisite: BI 200, BI 428 and CH 343-344)

BI 420 Limnology (4 crs.)

Limnology examines the interaction of physical and chemical processes in freshwater ecosystems and how they influence populations of freshwater organisms. Laboratory exercises will focus on a field project re-

quiring sampling and analysis of water chemistry, bacteria, phytoplankton, zooplankton, and macroinvertebrates. Students must expect to spend extra time outside of class on the collection and analysis of laboratory project data. Two hours of lecture and one four-hour laboratory sessions per week. (Prerequisites: BI 121-122, BI 225, CH 131-132, or equivalents; junior level status in your major. Recommended: course on computer application)

BI 422 Biological Evolution (3 crs.)

This course covers the theory of evolution and the operation of evolutionary forces as related to modern taxonomy, with emphasis on such topics as mutation, variation, hybridization, ployploidy, isolation, natural selection, and population genetics. Two lectures weekly. (Prerequisite: BI 321 or consent of the Instructor) Offered alternate years, Spring semester

BI 425 Population Ecology (3 crs.)

The dynamics and evolution of populations. Topics to be covered include: Models in population biology, population growth, density dependent and density independent growth, population genetics, evolution of life histories, species interactions, competition, predator-prey interactions, host-parasitoid interactions, disease and pathogens, and population growth and regulation. Two hours of lecture and one two-hour laboratory period weekly. (Prerequisite: BI 122 or equivalent, BI 225, BI 321; or consent of the instructor) Either semester

BI 426 Biomonitoring and Water Pollution (4 crs.)

Biomonitoring and Water Pollution examines the current research papers and the methods used to assess stress in aquatic communities caused by pollution and habitat destruction. Lectures are a discussion of current papers on Biotic Indices used to assess fish and macroinvertebrate communities. The laboratory is a semester long investigation of stress indicators in aquatic communities of a local river. A term research paper and public presentation of research findings is required. Students must anticipate extra field and laboratory work outside of the regular class period. Two hours of lecture and two two-hour laboratory sessions per week. (Prerequisites: BI 122, BI 225, and CH 131-132 or equivalent; Junior level status in your major. Recommended: course on computer applications)

BI 428 Microbiology (3 crs.)

An introduction to the structure, metabolism, and genetics of microorganisms with emphasis on bacteria and fungi. Two hours of lecture and one two-hour laboratory period weekly. (Prerequisite: At least junior standing with 15 credits in biology courses.) Spring semester

BI 430 Embryology (3 crs.)

A study of developmental processes at different levels of organization with emphasis on animal development. Topics include gametogenesis, fertilization, early embryonic development, organogenesis, differentiation, growth and regeneration. Two hours of lecture and one two-hour laboratory period weekly. (Prerequisite: BI 121-122 or equivalent; CH 131-132; or consent of the instructor) Offered alternate years, Spring semester

BI 433 Cytology (3 crs.)

Cellular morphology and organization including descriptions of major intracellular processes and the functional significance of cellular structures. Two hours of lecture and one two-hour laboratory period weekly. (Prerequisite: BI 200, or consent of the instructor) Offered alternate years, Fall semester

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BI 434 Biological Electron Microscopy (3 crs.)

An introduction to the techniques of tissue preparation including fixation, dehydration and embedment procedures, followed by sectioning and staining, practical use of the electron microscope and interpretation of electron photomicrographs. Basic principles of tissue preparation and applications of electron microscopy will be stressed. One hour of lecture and one four-hour laboratory period weekly. (*Prerequisite: BI 200 or consent of the instructor*) *Spring semester*

BI 444 Biology of the Fungi (3 crs.)

A study of the fungi with emphasis on morphology, physiology, and genetics. (*Prerequisite: BI 121-122 or BI 240; CH 131-132 or equivalent; or consent of the instructor*) *Either semester (formerly BI 344)*

BI 450 Virology (3 crs.)

This course is an introduction to the study of viruses including bacteriophages, animal and plant viruses. Viral structure and mechanisms of action are considered at the molecular level, and emphasis is placed on viral replication and host cell interactions. (*Prerequisite: BI 200, and CH 131-132 or CH 141-142*) *Fall semester (formerly BI 323)*

BI 472 Human Genetics (3 crs.)

The general principles of genetics as applied to humans. Emphasis will be placed on the determination of genotypes, predictions for future offspring, pedigree construction and analysis, diagnosis and treatment of genetic diseases, gene mapping, cytogenetics of normal and aberrant genomes, and population genetics. (*Prerequisite: BI 321 or consent of the instructor*) *Offered once in three years*

BI 480 Tropical Field Ecology (3 crs.)

An intensive two week course on tropical ecology held in field locations in the neotropics. Ecosystems to be studied include tropical rainforests, mangroves, mangrove islands, sandy islands and coral reefs. This course is only offered in the summer. (*Prerequisite: BI 100 or equivalent and six hours of additional course work in field systematic study*)

BI 482 Neurobiology (3 crs.)

The study of the ultrastructure, chemical and physiological properties of the invertebrate and vertebrate neuron such as membrane potentials, synaptic transmission, growth and aging. Sensory and motor functions of nerves; reflex mechanisms; autonomic nervous functions; and central nervous system functions such as the limbic or emotional brain; learning and memory; regulation of biological clocks and autonomic functions will be covered. (*Prerequisites: CH 131-132, a physiology course and/or consent of the instructor*)

BI 485 Honors Thesis (3 crs.)

This course is open to All-College and Departmental Honors students. One-hour weekly meetings with the thesis director will culminate in an honors thesis. With the consent of the Departmental Honors Committee and the thesis director, this course may be extended into a second semester for three additional credits depending upon the scope of the project. Whether the final version of the thesis qualifies the student to graduate with honors will be determined by the Departmental Honors Committee. *Either semester*

BI 490 Special Topics in Biology (3 crs.)

A special topics course which will allow specialized and one time offerings in the field. Designed to allow experimental courses of special

interest to biology majors. (*Prerequisites: BI 121-122, other prerequisites may be required*)

BI 497 Undergraduate Biological Research (1-3 crs.)

Juniors and seniors who are accepted by a faculty member as a participant in an undergraduate laboratory or field research project enroll in this course. Projects entail substantial research in the faculty member's biological subdiscipline and are publicized as student research positions become available. Students are extensively involved in experimental planning, execution, analysis, and reporting. (*Prerequisite: Junior or senior standing and acceptance by the supervising faculty member.*)

BI 498 Internship in Biology (3-15 crs.)

Internships include research, laboratory or occupational experience in industrial, allied health, educational, medical, governmental, recreational, regulatory or other organizations outside of the college. No more than six (6) credits may be used toward the biology major electives. (*Prerequisite: consent of the department*) *Either semester*

BI 499 Directed Study in Biology (1-3 crs.)

Open to juniors and seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits. (*Prerequisite: consent of the department*) *Either semester*

Other Approved Courses:

BI 104 Animal Morphology
BI 106 Introductory Plant Science
BI 109 Introduction to Human Disease
BI 116 Drugs of Plant Origin
BI 212 Plant Propagation
BI 211 Landscaping
BI 241 Plant Anatomy
BI 324 Microscopical Technique
BI 370 Vertebrate Zoology
BI 390 Introduction to Pharmacology
BI 421 Seminar in Biology
BI 435 Problem Solving with the Computer in Biology
BI 475 Parasitology

BI 502 Research (credit to be arranged)

Original research undertaken by the graduate student in his field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

BI 503 Directed Study (credit to be arranged)

Designed for the graduate student who desires to study selected topics in a specific field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

BI 504 Advanced Seminar in Selected Modern Biological Topics (3 crs.)

A study of significant recent work in a specific area of biological research. Students will be expected to do considerable library research, make oral presentations, and present a satisfactory written summary of their work.

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BI 537 Applied Research Project (1 cr.)

In this course, students complete an applied research project which integrates theory and practice utilizing educational research format and disciplinary knowledge.

BI 560 Special Topics in Biology Education (3 crs.)

A special topics course which will allow specialized and one time offerings in the field. Designed to allow experimental courses of special interest to teachers or biology majors interested in the field of education. (*Prerequisite: BI 121 - 122 or equivalent and graduate standing.*)

BI 561 Special Topics in Biology (3 crs.)

A special topics course which will allow specialized and one time offerings in the field. Designed to allow experimental courses of special interest to biology majors. (*Prerequisite: BI 121 - 122 or equivalent and graduate standing.*)

BI 580 Foundations of Biological Education (3 crs.)

An exploration of the historical underpinnings of biological education and the integration of modern philosophical foundations of biological education with classroom practice.

BI 582 Clinical Master's Research and Thesis

The development and implementation of a research project concerning theories and practice of learning and teaching biology. An acceptable thesis describing the project will be prepared by the student.

Other Approved Courses:

- BI 506 Advanced Cell Biology
- BI 507 Mechanisms of Development
- BI 508 Advanced Population Biology
- BI 509 Advanced Physiology
- BI 521 Advanced Cellular & Molecular Technique
- BI 523/BI 524 Marine Mammal Science for the Grades 5-8 Teacher
- BI 532 Ultrastructure
- BI 538 Intertidal Biology
- BI 550 Modern Developments in Biology
- BI 551 Advanced Mycology
- BI 573 Advanced Vertebrate Biology
- BI 580 Foundations of Biological Education
- BI 581 Mammalogy
- BI 584 Ethology
- BI 585 Advanced Ichthyology

BE 511 Advanced Biological Topics and Techniques (3 crs.)

Designed for secondary education science teachers, this course is composed of three 1 credit "short courses". Short course topics will vary and will also serve the continuing needs of teachers for professional development. Possible topics could include: whales of Massachusetts, isolation of plasmids, fungal genetics, spring migratory birds, freshwater macroinvertebrates of local ponds and streams, New England wetland plants, intertidal invertebrates, New England wildflowers, etc.

BE 512 Advances in Biological Science (3 crs.)

Designed for secondary education science teachers, this course will consist of a seminar covering a selected area of biology related to the

curriculum frameworks and teaching in the schools. The seminar could cover one topic or several related topics covered in 3-5 week blocks per topic and could be team-taught. Some topics may be team taught by a biology faculty member and a K-12 master teacher with appropriate background and qualifications, such as PALMS science specialists.

BE 513 Advances in Cell/Molecular Biology (3 crs.)

This graduate level course designed for secondary education science teachers, will cover subject areas of cell and molecular biology. Possible subject area components could include: molecular biology, techniques of molecular biology, microbiology, embryology, cytology, biological electron microscopy, the foundations of biology, biology of the fungi, virology, human genetics, advanced cellular biology, and advanced developmental biology.

BE 514 Advances in Biomedical/Physiological Biology (3 crs.)

This graduate level course designed for secondary education science teachers, will cover subject areas of biomedical and physiological biology. Possible subject area components could include: embryology, parasitology, neurobiology and advanced physiology.

BE 515 Advances in Ecological/Environmental Biology (3 crs.)

Designed for secondary education science teachers, will cover subject areas in ecological and environmental biology.

BE 537 Applied Research Project (1 cr.)

In this course, students complete an applied research project which integrates theory and practice utilizing education research format and disciplinary knowledge.

BF 501 Characteristics of Organisms (3 crs.)

Designed for elementary and middle school teachers. Coverage is keyed to the life sciences strand in the Massachusetts Science and Technology Curriculum Framework. Covers the cell and cell structure as the basic unit of life. Topics to be covered include: Single celled life forms, multi-cellular organisms, the five kingdoms of life and their characteristics, examples of the major taxonomic groups, cell structure in the five kingdoms, common features and differences, the process of cellular replication, comparison of mitosis and meiosis, complex integration of cells that comprise complex multi-cellular organisms, and major cell processes including food procurement or manufacture (photosynthesis and chemosynthesis) and breathing and respiration. *Prerequisite: An undergraduate degree and teacher certification. This course cannot be used as part of the MAT/Clinical Masters in Biology.*

BF 502 Diversity and Adaptation of Organisms (3 crs.)

Designed for elementary and middle school teachers. Coverage is keyed to the life sciences strand in the Massachusetts Science and Technology Curriculum Framework. Provides an understanding of the diversity of living organism on earth. Topics to be covered include the characteristics of the major groups of organisms, how organisms adapt to environments, the process of heredity and the nature of environments, the way in which short term and long term environmental change affects organisms, how long term change may result in elimination of a population or the introduction of new populations, the ways in which short and long term changes in the environment result

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in qualitative and quantitative changes in the diversity of life, and the process of organic evolution from both the short term and long term perspective. Special attention is placed on how humans are affecting the global environment and the impact on the diversity of life. *Prerequisite: An undergraduate degree and teacher certification. This course cannot be used as part of the MAT/Clinical Masters in Biology.*

BF 503 Heredity, Reproduction and Development (3 crs.)

Designed for elementary and middle school teachers. Coverage is keyed to the life sciences strand in the Massachusetts Science and Technology Curriculum Framework. Explains the importance of reproduction to the survival of species and examines the processes by which organisms which have two parents receive genetic instructions. Topics to be covered include the principles of heredity that determine the traits exhibited by offspring, how sorting and recombining of the genetic material produces variation among offspring, and the importance of variation in producing differences among individuals from the same population or species. *Prerequisite: An undergraduate degree and teacher certification. This course cannot be used as part of the MAT/Clinical Masters in Biology.*

BF 504 Ecosystems and Organisms (3 crs.)

Designed for elementary and middle school teachers. Coverage is keyed to the life sciences strand in the Massachusetts Science and Technology Curriculum Framework. Presents the fundamental principles of Ecology. Examines the concept of an ecosystem, the structure and function of an ecosystem, the ways in which organisms interact with each other and with the non-living components of their environments. Topics to be covered include flow of energy, cycling of matter, primary production, light energy transfer to plants in photosynthesis, food chains, food webs and energy pyramids, and recycling of matter. Local ecosystems will serve as examples of these processes. *Prerequisite: An undergraduate degree and teacher certification. This course cannot be used as part of the MAT/Clinical Masters in Biology.*

BF 505 The Biology of Fresh Waters (3 crs.)

Designed for elementary and middle school teachers. Topics covered will be closely tied to River Net and to the Massachusetts Science and Technology Framework. Provides content background in biology for understanding watersheds as ecological and biological systems. Introduction to investigative techniques used in the analysis of watersheds and water quality. Emphasis is placed on the use of freshwater ecology for watershed studies in the school curriculum. Topics will include principles of watershed ecology, basic principles of hydrology and river systems, and the use of macroinvertebrates as water quality indicators. Active/cooperative investigations will be emphasized as a means of constructing knowledge. *Prerequisite: An undergraduate degree and teacher certification. This course cannot be used as part of the MAT/Clinical Masters in Biology.*

BF 506 Applied Biology for the Laboratory (3 crs.)

Designed for elementary and middle school teachers. Topics covered will be closely tied to CityLab and to the Massachusetts Science and Technology Framework. Provides content background in biology for understanding principles of cell and molecular biology as applied to the CityLab project. Content covered will relate to basic biology, basic chemistry, basic physics, graph construction and interpretation needed to teach the material of the CityLab Program. Teachers using CityLab

will acquire sufficient academic depth to field questions regarding the labs and principles that underlie them. Teachers will learn to interpret the array of each experiment's possible experimental outcomes in order to guide their students to an appreciation and understanding not only of conclusions, but also the supporting experimental evidence. *Prerequisite: An undergraduate degree and teacher certification. This course cannot be used as part of the MAT/Clinical Masters in Biology.*

Department of Chemical Sciences*

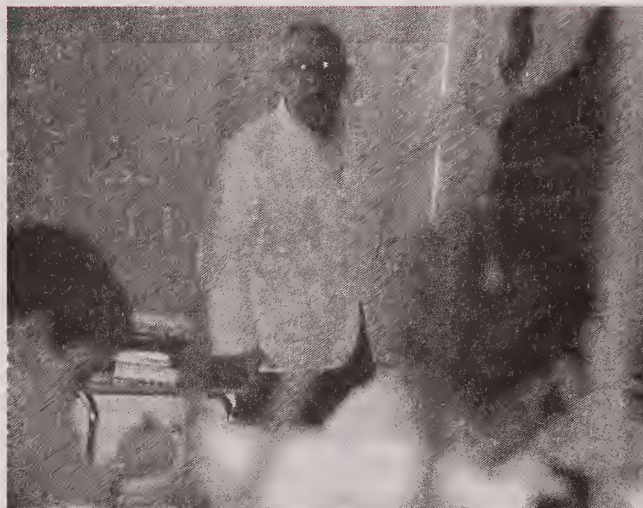
Faculty

Chairperson: Professor Henry Daley, Jr.

Professor: Vahe Marganian

Assistant

Professors: Edward Brush, Cielito DeRamos,
Frank Gorga



The Department of Chemical Sciences offers programs leading to the degrees of Bachelor of Arts in Chemistry, Bachelor of Science in Chemistry, and Master of Arts in Teaching Chemistry. All of these programs are designed to provide the skills and knowledge necessary to prepare students for successful careers in the chemical industry, chemical research, teaching, oceanography and environmental science, or for further study in graduate degree programs and professional schools.

Modern scientific instrumentation, used both for teaching and research purposes, includes electrochemical analytical equipment, a nuclear magnetic resonance (NMR) spectrometer, and atomic absorption spectrometer (AA), a visible-ultraviolet spectrophotometer (VIS-UV), several infrared (IR) spectrophotometers, electronic balances, a gas chromatograph (GC), a high-pressure liquid chromatography (HPLC) unit, several types of glassware, and computers and accessories.

Students, staff and faculty maintain a well-functioning atmosphere of informal interaction, outside the classroom and laboratory. Many students participate in Chemistry Club activities, which include seminars by area scientists, visits to academic and industrial laboratories, and special social events. Occasionally students and faculty together attend national American Chemical Society (ACS) meetings throughout the country.

Undergraduate Programs

Bachelor of Arts/Bachelor of Science

The department offers two major programs in chemistry, a major in chemistry with concentrations in biochemistry and professional chemistry and a chemistry-geology major jointly with the Department of Earth Sciences and Geography. The biochemistry and professional chemistry concentrations are designed for students who plan to do research in the chemical industry or to go on to graduate work in chemistry. The courses offered in these programs meet the requirements of the American Chemical Society* for an approved major. Satisfactory performance in these programs (B average) will give the student the professional preparation required for an assistantship or fellowship in graduate school.

The major in chemistry is designed for students who wish to prepare for such fields as medicine, dentistry, the chemical industry, secondary school teaching, chemical sales, pharmacy, oceanography, environmental sciences, sanitation chemistry, or veterinary science. Only a minimum number of chemistry courses is required so that a program suited to an individual's interests may be developed with the student's faculty adviser.

The department offers studies to students preparing for careers in medicine, dentistry, or oceanography. Additional information on these programs may be found in this catalog under *Interdisciplinary and Pre-Professional Programs*.

*The Department of Chemical Sciences is on the list of approved schools of the American Chemical Society.

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Chemistry Major

CH 100 Computer Science in Chemistry

or

CS 100 Programming in BASIC

CH 141-142 Chemical Principles I-II

or

CH 131-132 General Chemistry I-II

CH 242 Intermediate Inorganic Chemistry

CH 343-344 Organic Chemistry I-II

CH 381-382 Physical Chemistry I-II

MA 151-152 Calculus I-II

or

MA 141-142 Elements of Calculus I-II with the permission of the adviser

PH 243-244 General Physics I-II

or

PH 181-182 Elements of Physics I-II with the permission of the adviser

Biochemistry Concentration

CH 100 Computer Science in Chemistry

or

CS 100 Programming in BASIC

CH 141-142 Chemical Principles I-II

or

CH 131-132 General Chemistry I-II

CH 343-344 Organic Chemistry I-II

CH 381-382 Physical Chemistry I-II

CH 461-462 General Biochemistry I-II

CH 444 Advanced Inorganic Chemistry

CH 466 Advanced Biochemistry Laboratory

BI 100 General Principles of Biology

BI 200 Cell Biology

BI 321 Genetics

BI 428 Microbiology

MA 151-152 Calculus I-II

or

MA 141-142 Elements of Calculus I-II

One of the following three courses:

CH 241 Inorganic Quantitative Analysis

CH 250 Instrumentation

CH 450 Instrumental Analysis

PH 243-244 General Physics I-II

or

PH 181-182 Elements of Physics I-II

Professional Chemistry Concentration

CH 100 Computer Science in Chemistry

or

CS 100 Programming in BASIC

CH 141-142 Chemical Principles I-II

or

CH 131-132 General Chemistry I-II

CH 241 Inorganic Quantitative Analysis

CH 242 Intermediate Inorganic Chemistry

CH 343-344 Organic Chemistry I-II

CH 381-382 Physical Chemistry I-II

CH 444 Advanced Inorganic Chemistry

CH 450 Instrumental Analysis

CH 492 Laboratory Techniques

MA 151-152 Calculus I-II

MA 201 Calculus III

PH 243-244 General Physics I-II

Select one Math course from the following:

MA 110 Elementary Statistics I

MA 120 Introduction to Linear Algebra

MA 200 Probability and Statistics

MA 202 Linear Algebra

or

MA 316 Differential Equations

A student must also elect one advanced course, which must be in chemistry at or above the 390 level and have CH 344 Organic Chemistry II and CH 382 Physical Chemistry II as prerequisites, making sure that the program contains 500 hours of laboratory instruction with 150 hours of laboratory at the advanced level. (Elective courses must be approved by the adviser.)

Chemistry/Geology Major

A major in chemistry-geology is offered jointly with the Department of Earth Sciences and Geography. (See the catalog section entitled *Interdisciplinary and Pre-Professional Programs* for detailed information.)

Double Major with Elementary Education, Early Childhood Education or Special Education

Students may choose a double major in chemistry or chemistry-geology and elementary education, early childhood education or special education for certification purposes. Please contact the Department of Chemistry and the appropriate education department for further information.

Minor in Secondary (High School) or Middle School Education

Students may minor either in Secondary (High School, grades 9-12) or Middle School (grades 5-9) Education. Successful completion of either of these programs will lead to Massachusetts Provisional with Advanced Standing Teacher Certification. Please refer to the Department of Secondary Education and Professional Programs for specific teacher certification and program requirements.

“Teacher of General Science” option

This option is available for students who have met the requirements for Teacher of Chemistry through Bridgewater State College and wish to add Teacher of General Science certification through the new field option of the state regulations. Students who elect this option may take the courses listed below and request an independent transcript review through the Massachusetts Department of Education for the General Science field.

PH 181-182 Elements of Physics I-II or

PH 243-244 General Physics I-II*

ES 100 Physical Geology and an additional 3 credit

Earth Science course (to be chosen with the approval of the Earth Science department)

BI 121-122 General Biology I-II

*These courses are already required as part of the major

Chemistry Minor

18 credits in chemistry.

Only one of the following sequences or its equivalent may be taken for credit:

(a) CH 125-126 Introductory Chemistry for the Life Sciences I-II

(b) CH 131-132 General Chemistry I-II

or

CH 141-142 Chemical Principles I-II

Students may not take both CH 300 Organic Chemistry for the Life Sciences and CH 343-344 Organic Chemistry I-II for credit. CH 111 The Art of Chemical Inquiry may not be used to fulfill minor requirements in chemistry.

Biochemistry Minor

18-20 credits in chemistry.

The following sequences of courses must be taken:

CH 343-344 Organic Chemistry I-II

CH 461-462 General Biochemistry I-II

Physical Science Minor

18 credits in chemistry and physics.

Additional Comments on Requirements:

The normal freshman program for a student interested in either chemistry major consists of CH 100 Computer Science in Chemistry (or CS 100 Programming in Basic), CH 141-142 Chemical Principles I-II, MA 151-152 Calculus I-II, and six credits toward the general education requirements. A student need not decide between the two chemistry majors until the second semester of the sophomore year. Students completing the professional chemistry concentration will meet the requirements for certification by the American Chemical Society.

Because of the sequential nature of the courses required of a chemistry major, a student considering majoring in chemistry must take MA 151-152 Calculus I-II (or MA 141-142 Elements of Calculus I-II with the permission of the adviser) and CH 141-142 Chemical Principles I-II in the freshman year or plan to attend summer school. For this reason any student considering the possibility of majoring in chemistry should consult a member of the department before registering for freshman courses.

Graduate Programs**Master of Arts in Teaching****Clinical Master's Program****Chemistry****Certification Program (Standard Level)**

This master's degree program is designed for persons who have provisional certification with advanced standing and are seeking standard certification in the area of chemistry (9-12, 5-9). (Students needing provisional certification with advanced standing should refer in this catalog to the program entitled "Post Baccalaureate Program: Provisional Certification With Advanced Standing for Secondary (Subject Areas: 9-12) and Middle Level (Subject Areas: 5-9) Teachers" under the *Department of Secondary Education and Professional Programs*.)

For information regarding application procedures and admission standards, students should consult the *Graduate School* section of this catalog.

Students seeking standard certification should consult the section of this catalog entitled *School of Education and Allied Studies* for information pertaining to professional certifica-

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tion, admission to and retention in Professional Education, as well as important institutional deadlines.

GP 501 Graduate Program Planning

All accepted students must enroll under the direction of their adviser in GP 501 Graduate Program Planning, which is described under "Graduate Adviser and Program Planning" in the *Graduate School* section of this catalog. As part of their program, students must satisfactorily complete the following curriculum:

Education Core

- ED 530 Research Methods
- ED 531 The Curriculum Experience
- ED 532 Critical Issues - Educators and Society
- ED 533 Effective Practices in Human Development & Learning
- ED 534 Clinical Experience (6 crs.)
- ED 537 Applied Research Project (2 crs.)

(Course descriptions for ED 530-537 are provided in the *School of Education and Allied Studies* section of this catalog.)

Discipline Area Requirements

M.A.T. students are expected to have, or acquire in addition to degree requirements, an appropriate background of college level courses, to be determined by the department.

Required Courses:

1. Students select five courses from the following three areas of concentration. At least one course must be taken from each area.

Area I. Professional Chemistry courses

- CH 591 Advanced Organic Chemistry I
- CH 592 Advanced Organic Chemistry II
- CH 594 Special Topics in Inorganic Chemistry
- CH 597 Advanced Physical Chemistry I
- CH 598 Advanced Physical Chemistry II

Area II. Chemical Application courses

- CH 510 Chemical Instrumentation
- CH 512 Microcomputers as Laboratory Instruments
- CH 525 Problem Solving in Chemistry and Physics
- CH 550 Chemistry and the Environment

Area III. Biochemistry and Molecular Structure

- CH 561 Recombinant DNA Technology
- CH 562 Protein Chemistry
- CH 582 Biochemistry Topics
- CH 585 Atomic and Molecular Structure/Scientific Visualization

2. CH 537 Applied Research Project (1 cr.)

Each student will be required to pass a comprehensive examination prior to being eligible to receive the Master of Arts in Teaching degree.

Students who successfully complete the above curriculum are eligible for standard certification.

Master of Arts in Teaching Chemistry Physical Sciences

Program for Teachers with Standard Certification

This program is designed for secondary and middle level subject area teachers who have standard certification.

All accepted students must enroll under the direction of their adviser in GP 501 Graduate Program Planning, which is described under "Graduate Adviser and Program Planning" in the *Graduate School* section of this catalog. As part of their program, students must satisfactorily complete the following curriculum:

- GP 501 Graduate Program Planning
- ED 530 Research Methods
- ED 531 The Curriculum Experience
- ED 532 Critical Issues - Educators and Society
- ED 533 Effective Practices in Human Development and Learning

(Course descriptions for ED 530 - 533 are provided in the *School of Education and Allied Studies* section of this catalog.)

Discipline Electives

M.A.T. students are expected to have, or acquire in addition to degree requirements, an appropriate background of college level courses, to be determined by the department.

A minimum of 18 approved graduate credits in the academic area of concentration which meet the academic and professional objectives of the student is required.

Successful completion of a comprehensive examination is also required.

Course Offerings***CH 100 Computer Science in Chemistry (2 or 3 crs.)**

Introduction to computers as used in chemistry. The use of wordprocessing, spreadsheets and an introduction to the use of Basic programming for interfacing with laboratory equipment. Computer software used in molecular modeling and in the simulation of chemical systems will be explored. *Spring semester*

CH 102 Chemistry in Everyday Life (3 crs.)

A selection of topics from the multitude of chemical and nuclear reactions encountered in the everyday life of the modern person will be presented through lectures and demonstrations. Topics such as the following may be included: evaluation of energy alternatives, radioactive isotopes in diagnosis and treatment of disease, risk-to-benefit evaluation of food additives and environmental impact of chemical waste disposal. Satisfies the GER in Physical and Biological Sciences (non-lab course). *Either semester*

CH 111 The Art of Chemical Inquiry (3 crs.)

The underlying principles governing the interactions of molecules, whether simple or complex, will be developed and applied to the investigation of phenomena such as the following: air and water pollution, nuclear power generation, fires and their control, crystal formation and the use of food additives. Two hours of lecture and one two-hour laboratory period weekly. Satisfies the GER in Physical and Biological Sciences. *Either semester*

CH 125 Introductory Chemistry for the Life Sciences I (4 crs.)

A study of the fundamental principles of general, organic and biological chemistry and their applications to physiological systems. Primarily for students of nursing and the allied health professions. Three hours of lecture and one two-hour laboratory period weekly. (*Prerequisite: high school chemistry or the equivalent*) *Fall semester*

CH 131-132 General Chemistry I-II (3 crs. for each semester)

The elements and their compounds will be studied with emphasis on structure and its relationship to properties. Two hours of lecture and one two-hour laboratory period weekly. (*CH 131 is prerequisite to CH 132. CH 131 only satisfies GER in Physical and Biological Sciences.*) *CH 131 fall semester, CH 132 spring semester*

CH 135-136 Freshman Honors Colloquium (1 cr. each semester)

Freshman honors colloquia in chemistry allow exceptionally able students to explore a challenging topic in small classes under close faculty supervision. Colloquia meet once a week for fifty minutes and culminate in a paper or scientific project which provides the major part of the grade. Open to all-college honors students and to others at the discretion of the instructor. The minimum enrollment is two and the maximum is twelve. Topics vary from semester to semester. (*Prerequisite: consent of the instructor*) *CH 135 fall semester, CH 136 spring semester*

CH 141-142 Chemical Principles I-II (4 crs. for each semester)

Theoretical inorganic chemistry will be studied with emphasis on mass-energy relationships in terms of structure and physical laws.

Laboratory work emphasizes quantitative techniques. Three hours of lecture and four hours laboratory weekly. (*CH 141 is prerequisite to CH 142. CH 141 only satisfies the GER in Physical and Biological Sciences.*) *CH 141 fall semester, CH 142 spring semester*

CH 241 Inorganic Quantitative Analysis (3 crs.)

The classical and modern methods for the volumetric and gravimetric determination of elements and groups. Two hours of lecture and one four-hour laboratory period weekly. (*Prerequisite: CH 132 or CH 142*) *Spring semester*

CH 242 Intermediate Inorganic Chemistry (3 crs.)

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. (*Prerequisite: CH 132 or CH 142*) *Fall semester*

CH 250 Instrumentation (3 crs.)

The physical chemistry basic to modern analytical instrumentation will be discussed as the basis for the study of instrumental analysis. Two hours of lecture and one two-hour laboratory period weekly. (*Prerequisite: CH 132 or consent of the instructor*) *Offered once in three years, spring semester*

CH/PH 260 Microprocessors-Microcomputer Technology (4 crs.)

A study of the electrical families, components and processes used to build the components of microprocessors and microcomputers. An examination of timing cycles for different microprocessors with limitations on the digital devices used and the various means by which these components can be assembled in the construction of the microcomputer. Comparison of the various microcomputers available. (*Prerequisite: A college level course in PH or consent of the instructor*) *Offered alternate years, fall semester*

CH 286-287 Sophomore Honors Colloquium (1 cr. each semester)

Sophomore Honors Colloquia in chemistry allow exceptionally able students to explore a challenging topic in small classes under close faculty supervision. Colloquia meet once a week for fifty minutes and culminate in a paper or scientific project which provides the major part of the grade. Open to All-College Honors students and to others at the discretion of the instructor. The minimum enrollment is two and the maximum is twelve. Topics vary from semester to semester. (*Prerequisite: consent of the instructor*) *CH 286 fall semester, CH 287 spring semester*

CH 300 Organic Chemistry for the Life Sciences (4 crs.)

The fundamentals of organic chemistry—structure, synthesis and mechanism—with applications to biological systems. Designed for students in the life sciences, e.g. nursing, medical technology, physical therapy and nutrition. Not recommended for students intending to pursue graduate study in microbiology, physiology or medicine. This course is not open to chemistry majors. Three hours of lecture and one three-hour laboratory period weekly. (*Prerequisite: CH 132 or CH 126*) *Offered once in three years, fall semester*

CH 338-339 Honors Tutorial (3 crs. each semester)

Special topics in chemistry. Open to All-College and Departmental Honors students. Three hourly meetings weekly. (*Prerequisite: consent of the department*) *CH 338 fall semester, CH 339 spring semester*

* See page 73 for general information regarding course offerings.

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CH 343-344 Organic Chemistry I-II (4 crs. for each semester)

A survey of the chemistry of organic compounds organized in terms of structure, mechanism of organic reactions, and synthesis. CH 343 is a prerequisite to CH 344. Three hours of lecture and one four-hour laboratory period weekly. (The same course may be taken without laboratory under CH 341, 342) (Prerequisite: CH 132 or CH 142)

CH 350 Introduction to Laboratory Automation (2 crs.)

The use of microcomputers for data acquisition and analysis. A study of transistors, amplifiers, op. amps., differential amps, power supplies, regulators and filters as used in laboratory instruments. The interfacing of these instruments, especially using the IEEE-GPIB bus, to microcomputers to receive and analyze data will be covered. Projects will be assigned in which the student works in the laboratory gathering data directly on a computer. One hour of lecture and two hours of laboratory weekly. (Prerequisite: CH 100 or a knowledge of basic programming) Offered once in three years, Spring semester

CH 381-382 Physical Chemistry I-II (4 crs. for each semester)

The laws governing the physical and chemical behavior of compounds. Three hours of lecture and one four-hour laboratory period weekly. (Prerequisite: CH 132 or CH 142; MA 152) CH 381 Fall semester, CH 382 spring semester

CH 390 Research Problems in Chemistry (credits to be arranged)

Special projects for advanced students desiring individual instruction in the methods of chemical research. Hours arranged. (Prerequisite: CH 344, CH 382 and consent of the department) Either semester

CH 422 Applied Computational Chemistry (4 crs.)

An introduction to the application of the methods and techniques of molecular modeling and computational chemistry to all areas of chemistry. The course will include hands-on-experience with state-of-the-art software. A one hour lecture and one three-hour laboratory weekly. (Prerequisite: MA 151-152, or MA 141-142, CH 344, or consent of the instructor)

CH 440 Advanced Organic Chemistry (3 crs.)

Selected topics in advanced organic chemistry, such as physical organic chemistry, alicyclic and heterocyclic chemistry, natural products, and advanced synthetic methods. Hours arranged. (Prerequisite: CH 344, CH 382 or consent of the instructor) Offered once in three years, Spring semester

CH 442 Qualitative Organic Analysis (3 crs.)

The reactions of organic compounds with emphasis on those of importance for classification and identification and the elucidation of structure by spectroscopic analysis. Laboratory work involves the identification of both simple compounds and mixtures. One hour of lecture and one six-hour laboratory period weekly. (Prerequisite: CH 344, CH 382 or consent of the instructor) Spring semester

CH 444 Advanced Inorganic Chemistry (3 crs.)

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. (Prerequisite: CH 344, CH 382) Spring semester

CH 450 Instrumental Analysis (3 crs.)

Theory and practical application of instrumental methods as applied to chemical analysis; including pH measurements, electro-deposition,

potentiometry, crystallography, mass spectrometry and spectroscopy. CH 382 may be taken concurrently. Two hours of lecture and one four-hour laboratory period weekly. (Prerequisite: CH 382) Fall semester

CH 461 General Biochemistry I (4 crs.)

A survey of the chemical components of living matter and the major processes of cellular metabolism. Three hours of lecture and one three-hour laboratory period weekly. (Prerequisite: CH 344 or consent of the instructor) Fall semester

CH 462 General Biochemistry II (3 crs.)

A survey of the chemical components of living matter and the major processes of cellular metabolism. Three hours of lecture weekly. The laboratory portion may be taken independent of the lecture under CH 466 Advanced Biochemistry Laboratory. (Prerequisite: CH 461) Spring semester

CH 466 Advanced Biochemistry Laboratory (2 crs.)

A study of special laboratory techniques used in biochemical research, such as chromatography, enzymology, radiochemical techniques, electrophoresis, and metabolic pathways. An individual project will complete the laboratory. One hour of laboratory discussion and three hours of laboratory weekly. (Prerequisite: CH 461) Spring semester

CH 485 Honors Thesis (3 crs.)

This course is open to All-College and Departmental Honors students. This one-hour weekly meetings with the thesis director will culminate in an honors thesis. With the consent of the Departmental Honors Committee and the thesis director, this course may be extended into a second semester for three additional credits depending upon the scope of the project. Whether the final version of the thesis qualifies the student to graduate with honors will be determined by the Departmental Honors Committee. Either semester

CH 492 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 methods. Hours arranged. (Prerequisite: CH 344, CH 382) Fall semester

CH 498 Internship in Chemical Sciences (3-15 crs.)

Laboratory experience in industrial or government laboratories, regulating agencies or academic laboratories at other institutions. (Prerequisite: consent of the department; formal application required) Either semester

CH 499 Directed Study in Chemistry (1-3 crs.)

Open to juniors and seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits. (Prerequisite: consent of the department; formal application required) Either semester

Other Approved Courses:

CH 126 Introductory Chemistry for the Life Sciences II
CH 210 Chemistry and Society
CH 252 Recent Developments in Inorganic Chemistry
CH 270 Introduction to Toxicology
CH 280 Physical Chemistry for the Life Sciences
CH 290 Environmental Chemistry
CH 372 Marine Chemistry
CH 389 Introduction to the Chemical Literature

Chemical Sciences

CH 502 Research (credit to be arranged)

Original research undertaken by the graduate student in his or her field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

CH 503 Directed Study (credit to be arranged)

Designed for the graduate student who desires to study selected topics in a specific field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

CH 510 Chemical Instrumentation (3 crs.)

Three major areas of chemical instrumentation will be covered. Spectroscopy included infrared, ultraviolet and visible, atomic absorption, nuclear magnetic resonance and mass spectrometry. Electrochemistry covers pH, voltaic cells, and polarography. Chromatography includes paper, high pressure and electrophoresis. (*Prerequisite: consent of the instructor*)

CH 512 Microcomputers as Laboratory Instruments (4 crs.)

An introduction to the use of microcomputers in the laboratory in the physical sciences. This course is designed for practicing science teachers with no background in computer science. Topics to be considered will include the following: survey of microcomputer electronics; the organization of microcomputers; survey of available microcomputers, microcomputer printers and disc drives; available microcomputer languages; microcomputer operating systems; available microcomputer laboratory software in the physical sciences; laboratory data acquisition; microcomputer interfacing; and the use of simple microcomputer interfaces in the science laboratory. (*Prerequisite: Science teaching experience and a one-year introductory course in a physical science or consent of the instructor*)

CH 520 Molecular Modeling (4 crs.)

An introduction to the structure of molecules and the ways that chemists use computers to calculate and view structures and electron distributions. The use of computers to aid in the visual interpretation of geometry, distribution of electrons and spectra will be discussed. The course will include hands-on experience with state-of-the-art hardware and software used in molecular modeling. (*Prerequisite: CH 343-344, CH 381-382, or consent of the instructor*)

CH/PH 525 Problem Solving in Chemistry and Physics (3 crs.)

Skills needed in the solving of problems in chemistry and physics will be developed. Emphasis will be on the application of mathematics to problem solving. Topics will be chosen from the sciences to illustrate the application of algebra, geometry, linear algebra and calculus to physics and chemistry. Methods of treating data obtained in the laboratory will be developed. (*Prerequisites: High School/Middle School Teacher of Mathematics or Science*)

CH 530 Computer Assisted Instruction Design in the Physical Sciences (4 crs.)

The design and implementation of CAI software in the physical sciences. The use of microcomputers to design, write, test, modify and debug a software package involving interactive microcomputer graphics. CAI software produced will be tested in science classes. (*May be taken for credit more than once up to a maximum of 16 credits.*)

CH 537 Applied Research Project (1 cr.)

In this course, students complete an applied research project which integrates theory and practice utilizing educational research format and disciplinary knowledge.

CH 550 Chemistry and the Environment (3 crs.)

A study of the chemicals in the environment responsible for air, water, and soil pollution. Emphasis will be on simple techniques that can be used to detect these various types of chemicals. Laboratory work will include field trips to collect samples and analysis of samples.

CH 561 Recombinant DNA Technology (3 crs.)

An introduction to the structure of DNA and to the basic principles of gene manipulation, recombinant DNA technology and genetic engineering, including medical and industrial applications. (*Prerequisite: CH 343-344, BI 200, or consent of the instructor*)

CH 562 Protein Chemistry (3 crs.)

An introduction to protein chemistry. Topics to be covered will include the structure of proteins, protein isolation and purification, protein structure determination, molecular recognition, enzyme kinetics and mechanism, protein folding. Hands-on-experience with protein molecular modeling and molecular dynamics will be included. (*Prerequisite: CH 344*)

CH 582 Biochemistry Topics (3 crs.)

An in-depth examination of one area in biochemistry. Included will be a discussion of: laboratory techniques used in separation and purification, chemical structures and the interactions and functions of the biomolecules appropriate to the area of study. A critique of original literature will also be included. (*Prerequisite: CH 462 or consent of the instructor*)

CH 585 Atomic and Molecular Structure (3 crs.)

A modern approach to atomic and molecular structure will be developed and applied to selected cases from inorganic and organic chemistry. Topics to be covered will include the following: atomic structure, the molecular orbital approach to molecular structure, antibonding orbitals, introductory ligand field theory, geometrical and optical isomerism, conformational analysis, correlation of structure and reactivity, and the conservation of orbital symmetry. (*Prerequisite: consent of the instructor*)

CH 591 Advanced Organic Chemistry I, Structure (3 crs.)

Instrumental techniques of organic structure determination such as infra-red, ultraviolet and proton magnetic resonance spectroscopy and methods of separation and identification. Classic examples of modern structure proofs will be considered in detail. Students will conduct a literature search on the structure of an organic molecule and present a short seminar on this structure proof. Practical experience with IR, UV, NMR and gas chromatography of the structure of an unknown organic molecule. (*Prerequisite: CH 344*)

CH 592 Advanced Organic Chemistry II, Mechanism and Synthesis (3 crs.)

A one-semester course in advanced organic chemistry designed for participants who have some background in elementary organic chemistry. Topics to be considered will include recent developments in the mechanism of organic reactions and organic synthesis through retrosynthetic analysis. Special topics may include valence tautomerism,

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biogenetic synthesis, photochemistry, cycloaddition reactions and the Woodward-Hoffman rules for the conservation of orbital symmetry. (*Prerequisite: CH 344 and 591, or consent of the instructor*)

CH 594 Special Topics in Inorganic Chemistry (3 crs.)

Major topics of solid state chemistry, theories of bonding (Ligand and molecular orbital), symmetry and group theory, atomic and molecular structure will be discussed. Additionally, topics in environmental chemistry, bioinorganic chemistry and medicine, color and magnetism and selected industrial chemical processes will be included in this course. (*Prerequisite: consent of the instructor*)

CH 597 Advanced Physical Chemistry I, Chemical Thermodynamics and Statistical Thermodynamics (3 crs.)

The zeroeth, first and second laws of thermodynamics, entropy and free energy functions, probability and the thermodynamic function from a statistical consideration, the participation function. (*Prerequisite: CH 382*)

CH 598 Advanced Physical Chemistry II — Chemical Kinetics (3 crs.)

A survey of chemical kinetics and recent developments in the field. Study of zero, first, second and third order reactions, Arrhenius Equation, consecutive reactions, collision and theory of absolute reaction rates. (*Prerequisite: CH 382*)

Department of Communication Studies & Theatre Arts

Faculty

Chairperson: Professor Nancy Street

Professors: Arthur Dirks, Susan Holton,
Stephen Levine, Joel Litvin,
Thomas Mickey, Nancy Moses,
Suzanne Ramczyk

**Associate
Professors:** Susan Miskelly, Nancy Owens

**Assistant
Professors:** Jabbar Al-Obaidi, William Covington,
Paul Nwulu, James Quinn, Henry Shaffer



Undergraduate Programs

Bachelor of Arts

Students majoring in this department may choose one of three concentrations: Communication Studies, Theatre Arts, or Teacher Certification in Theatre, Dance and Speech.

The Department of Communication Studies and Theatre Arts cooperates with several other departments in offering a number of minors for students wishing to explore studies which draw upon knowledge and expertise in more than one field. Also see the catalog section *Interdisciplinary and Pre-Professional Programs*, and consult the department. See also:

Dance
Public Relations
Radio and Television Operation and Production

Communication Studies Concentration

Effective Fall 1996, students selecting this concentration will develop specific skills as well as a critical understanding of the general nature, scope, and function of both Communication Studies and Mass Communication. *Students who have declared a concentration in Speech Communication prior to Fall*

1996 should refer to the Bridgewater State College Catalog 1995-1996 for degree requirements. They will also have the opportunity to focus on course groupings, based on advising and assessment of individual needs and direction. The minimum requirements include:

CC 220 Introduction to Mass Communication
CC 230 Introduction to Communication
CC 295 Communication Studies Research

One of the following:

CC 395 Communication Theory
CC 396 Mass Communication Theory and Research

One of the following:

CC 210 Voice and Diction
CC 250 Public Speaking
CC 260 Group Communication and Decision Making
CC 270 Interpersonal Communication

One of the following:

CC 495 Communication Studies Seminar
CC 496 Seminar in Mass Communication

Communication Studies electives (18 hours) from among course groupings in Speech Communication/Mass Communication/Organizational Communication/or Public Relations
12 of the elective credits must be 300 level or above.

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Communication Studies Minor

CC 130 Human Communication Skills

CC 210 Voice and Diction

plus twelve additional credits selected from communication courses.

Communication Disorders Concentration

Effective Fall 1996, the concentration in Communication Disorders has been moved to the Department of Special Education. *Students who have declared a concentration in Speech Communication prior to Fall 1996 should refer to the Bridgewater State College Catalog 1995-1996 for degree requirements.* For students who have not declared a major or concentration, information can be found in this catalog under the Department of Special Education and Communication Disorders.

Theatre Arts Concentration

Students selecting this concentration follow a program designed to develop skills in and appreciation of those subjects related to performance and production in live theatre. The minimum requirements include:

CT 115 Play Production

CT 211 Voice Production for Theatre

CT 220 Play Analysis for Production

CT 242 Acting I

CT 272 Stagecraft

CT 421 Theatre History I

CT 422 Theatre History II

CT 431 Directing I

CT 495 Seminar in Contemporary Theatre

One three-credit elective course in theatre

Four credits in

CT 140 Theatre Performance Practicum

CT 170 Technical Theatre Practicum

CT 185 Theatre Management Practicum

2 credits must be in CT 170 or CT 185

Theatre Arts Minor

CT 115 Play Production

CT 211 Voice Production for Theatre

CT 220 Play Analysis for Production

3 elective CT courses

Practica (2 credits in CT 140, CT 170, and/or CT 185)

Theatre, Dance and Speech Concentration

This concentration is a liberal arts program within the major of Communication Arts and Sciences dealing with the three subject areas of theatre arts, dance and speech communication. It is designed to meet the Standard I (subject matter knowledge) requirements for Massachusetts provisional certification in Communication and Performing Arts.

The core requirements provide a broad perspective on the three disciplines of theatre arts, dance and speech communication, while the elective course groupings allow students to specialize in the discipline(s) of their choice.

Those students in the program who choose to seek provisional Massachusetts certification at either the undergraduate or post-baccalaureate levels must also complete an additional 24 credits in education and gain admittance to the professional education program. Upon successful completion, the student will be certified to teach theatre, dance and speech communication in the public schools in grades N-12.

Course Requirements

CT 115 Play Production*

CT 255 Creative Dance I

CC 230 Introduction to Communication

CC/CT 496 Seminar in Theatre, Dance and Speech Communication

Elective Course Groupings

Complete one of the following groupings of courses:

I. Speech Communication

CC 210 Voice and Diction

CC 220 Introduction to Mass Communication

CC 250 Public Speaking

CC 260 Group Communication and Decision Making

CC 270 Interpersonal Communication

CC 295 Communication Studies Research

CC 360 Argumentation and Advocacy

CC 395 Communication Theory

II. Theatre Arts

CT 211 Voice Production

CT 220 Play Analysis for Production

CT 230 Creative Dramatics

CT 242 Acting I

CT 272 Stagecraft

CT 421 or CT 422 Theatre History I or II

CT 431 Directing I

Practica (Three credits from among the following courses, at least two of which must be from CT 170 or CT 185. Ideally,

* These courses fulfill a General Education Requirement, but only one arts GER is allowed in a discipline.

Communication Studies & Theatre Arts

the student in this program should complete one of each of the following):

- CT 140 Theatre Performance Practicum
- CT 170 Technical Theatre Practicum
- CT 185 Theatre Management Practicum

III. Dance

- CT 170 Technical Theatre Practicum
- or
- CT 185 Theatre Management
- CT/PE 146 Dance Appreciation
- CT/PE 155 Dance Practicum (2 semesters)
- CT/PE 251 Dance History*
- CT/PE 256 Creative Dance II
- CT 353 Creative Dance for Children
- CT/PE 357 Dance Production Theory
- CT/PE 358 Dance Production Techniques
- Cognates (see Dance Cognates below — 7 credits, at least 3 crs. must be second level PE 243, 253, 262)

IV. Speech/Theatre Arts

- CC 210 Voice and Diction
- CT 211 Voice Production
- CT 210 Oral Interpretation
- CC 220 Introduction to Mass Communication
- CC 250 Public Speaking
- CC 270 Interpersonal Communication
- CC 360 Argumentation and Advocacy
- or
- CT 220 Play Analysis for Production
- CT 242 Acting I
- CT 431 Directing

V. Theatre Arts/Dance

- CT 211 Voice Production
- CT 220 Play Analysis for Production
- CT 242 Acting I
- CT 431 Directing I
- or
- CT 272 Stagecraft
- CT/PE 146 Dance Appreciation
- CT/PE 256 Creative Dance II
- CT/PE 357 Dance Production Theory
- CT/PE 358 Dance Production Techniques
- CT 170 Technical Theatre Practicum
- or
- CT 185 Theatre Management Practicum

VI. Mass Communication

- CC 220 Introduction to Mass Communication

- CC 210 Voice and Diction
- CC 290 Beginning Videography
- CC 300 Television, Minorities, and Cultural Diversity
- CC 215 Television Production
- CC 325 Broadcast Newswriting
- CC 150 Practicum in Communication Media (2 crs.)
- CC 426 Critical Perspectives of Mass Communication

Dance Cognates

Cognates: 7 credits, at least 3 credits must be second level (PE 243, 253, 262)

- PE 153 Jazz Dance I
- PE 154 Ballet I
- PE 166 African Dance
- PE 167 Street Dance
- PE 243 Ballet II
- PE 253 Jazz Dance II
- PE 258 Modern Dance Technique
- PE 259 Dance Repertory
- PE 262 Modern Dance II

Education Cognates

Education Course Sequence for Certification Program for Teachers of Communication and Performing Arts

- HS 220 Teaching in the High School
- or
- ED 221 Teaching in the Middle School
- or
- EE 220 Principles of Teaching
- HS 230 Educational Psychology
- HS 370 Evaluating Teaching and Learning in the High School
- or
- ED 371 Evaluating Teaching and Learning in the Middle School
- or
- EE 360 Educational Evaluation
- ED 426 Strategies for Teaching Speech and Theatre Arts
- or
- HS 440 Methods and Materials in Secondary Education
- and
- EE 452 Methods and Materials in Elementary Education
- EE 492 Supervised Teaching in Public School - Elementary
- HS 490 Student Teaching Practicum - High School

Interdisciplinary Minor in Dance

The dance minor is an interdisciplinary program in the Theatre Arts and Physical Education programs. The objec-

* These courses fulfill a General Education Requirement, but only one arts GER is allowed in a discipline.

School of Arts & Sciences

tive is to give a solid liberal arts experience in the art of dance. The program includes the study of techniques of various styles of dance, dance history and theory, choreography and production.

Courses include:

CT/PE 255 Creative Dance I
CT/PE 256 Creative Dance II
CT/PE 251 Dance History
CT/PE 155 Dance Practicum (two semesters)
CT/PE 357 Dance Production Theory
CT/PE 358 Dance Production Techniques
PE 154 Ballet I

Four credits in the following:

PE 153 Jazz Dance
PE 166 African Dance
PE 167 Street Dance
PE 258 Modern Dance Technique
PE 259 Dance Repertory
PE 262 Modern Dance II
PE 243 Ballet II
PE 253 Jazz Dance II

Choose one:

PE 161 Folk Dance
PE 164 Square Dance
PE 168 Ballroom Dance
MU 160 Music: A Listening Approach is recommended but not required.

Interdisciplinary Minor in Public Relations

This public relations minor is offered as a cooperative effort of the Departments of Communication Studies and Theatre Arts, Management, and English. It provides an opportunity for students to acquire knowledge and skills germane to public relations practice. Students take courses in management, advertising, public relations, marketing, and business writing, or elect presentational skills courses, for a total of 21 credit hours.

Required Courses:

CC 301 Introduction to Public Relations
CC 391 Public Relations Seminar
MG 130 Principles of Management
MG 200 Marketing Principles
MG 424 Advertising

Elective Courses:

Choose one:

CC 212 Announcing
CC 250 Public Speaking
CC 330 Business and Professional Communication

Choose one:

EC 101 Principles of Microeconomics
EN 202 Business Communication

Interested students should contact the department chairperson of the Department of Communication Studies and Theatre Arts, the Department of Management, or the Department of English.

Double Major with Elementary Education, Early Childhood Education, or Special Education

Students may choose a double major, one in Communication Arts and Sciences with a concentration in Communication Studies, Theatre Arts, or Theatre, Dance and Speech and another in Elementary Education, Early Childhood Education or Special Education for certification purposes. Appropriate advising materials with suggested course sequences are available.

Production Programs

The program of Theatre Arts and Dance presents six mainstage productions annually in the 1400-seat Rondileau Campus Center Auditorium. The productions usually include a musical, as well as an experimental work, and a production for young audiences each spring, and two dance concerts. Any interested student is invited to participate.

Several student clubs are actively engaged in co-curricular activities supportive of the academic programs in the department:

The Forensic Society participates in intercollegiate competition in debate, group discussion, and individual speech competition in over fifteen separate categories including persuasive, informative, humorous speaking and oral interpretation of literature. Membership is open to all students with or without previous experience.

Students who have shown a commitment to debate and competitive speaking may be elected to membership in the forensic honor society, Pi Kappa Delta.

Communication Studies & Theatre Arts

The Communication Club is open to all students for information/interchange on the professions related to the field of communication studies.

Students in communication fields may also become members of the national speech communication honor society Lambda Pi Eta. Members are selected on the basis of scholarship and character.

The Ensemble Theatre sponsors and produces student-directed studio productions, workshops, and social and educational activities, including theatre trips to Boston, Providence, and New York City. It is open to all students interested in theatre.

The B.S.C. Dance Company is open to all. It brings a professional dance company to campus for a brief residence program and concert each year. It also sponsors master classes and social and educational activities dealing with dance.

Students may also receive credits in the department for active participation in debate, forensics, choral, speaking, dance, or theatre—see course descriptions for:

CC 110 Forensics Practicum

CT 140 Theatre Performance Practicum

CC 150 Practicum in Communication Media

CT/PE 155 Dance Practicum

CT 170 Technical Theatre Practicum

CT 185 Theatre Management Practicum

Note: A maximum of 6 credits in the above courses may be applied toward graduation.

Graduate Programs

Master of Arts in Teaching (Speech Communication and Theatre)

The department offers a program leading to the degree of Master of Arts in Teaching. This program is designed primarily to meet the varied needs of graduate students who are currently teaching communication and/or theatre. A diverse and appropriate program of study is ensured when the student works closely with the adviser in course selection. All accepted students must enroll under the direction of their adviser in GP 501 Graduate Program Planning, which is described under "Graduate Advisers and Program Planning" in the *Graduate School* section of this catalog.

Communication studies and theatre arts courses may also be taken in the Master of Arts in Teaching program in Creative Arts. For more detailed information regarding these programs, contact the Graduate School.

Course Offerings***Speech Communication****‡CC 110 Forensics Practicum (1 cr.)**

Credit is given for sixty or more hours of intercollegiate debate and competitive speaking at intercollegiate tournaments. Maximum of 3 credit hours to be used toward a major or minor in Communication Studies. *Either semester*

CC 130 Human Communication Skills (3 crs.)

This course is designed to foster competence and improve performance in all areas of communication. Through participative learning, the student will demonstrate those skills necessary to communicate effectively in interpersonal, group and public communication situations. Satisfies the GER in Speaking. *Either semester*

CC 150 Practicum in Communication Media (1 credit)

This course provides students with a faculty supervised applied learning experience in connection with electronic media on campus. A minimum of 60 clock hours of work is required. Grading is Pass/fail. This course may be taken no more than 2 times for credit within the major. *Either semester.*

CC 135-136 Freshman Honors Colloquium (1 cr. each semester)

Freshman Honors Colloquia in Communication Studies allow exceptionally able students to explore a challenging topic in small classes under close faculty supervision. Colloquia meet once a week for fifty minutes and culminate in a paper or scientific project which provides the major part of the grade. Open to All-College Honors students and to others at the discretion of the instructor. The minimum enrollment is two and the maximum is twelve. Topics vary from semester to semester. (*Prerequisite: consent of the instructor*) *CC 135 fall semester, CC 136 spring semester*

CC 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. *Either semester*

CC 212 Announcing (3 crs.)

For students interested in broadcasting careers in radio and television. Key areas include: Radio and television announcing, interviewing techniques, narration and talk programs, sports and newscasting. (*Prerequisite: CC 210*) *Either semester*

* See page 73 for general information regarding course offerings.

‡Note: From the one-credit co-curricular activities, CC 110, CT 140, CT 155, and CT 185, and from any and all co-curricular activities for which the college grants credit, a student may accumulate not more than one credit per semester (two per year) nor more than six per four-year degree program. **Exception:** All one credit co-curricular and Physical Education activity courses that are required for officially enrolled and graduating students in an approved major, concentration or minor may be counted towards graduation.

CC 214 Radio Production (3 crs.)

Audio theory, programming and production, station management, and relation of radio to record industry, working as a member of a production team in writing, producing, and editing on-air production.

CC 215 Television Studio Production (Television Production I) (3 crs.)

Learn equipment, direct live or live on tape, edit, cue audio and video. Team production of news, talk shows.

CC 220 Introduction to Mass Communication (3 crs.)

This course provides a review of the historical development of mass communication and the current status of the industry. It includes an examination of the daily operations of print communication and broadcast communication industries and a brief consideration of career opportunities. *Either semester*

CC 230 Introduction to Communication (3 crs.)

Historical overview of main figures and schools of thought in communication from classical times to present. Application of the traditional concepts to contemporary areas, e.g. interpersonal, small group, and public communication. Emphasis on the importance of communication to the development of self, knowing, and society. (*Prerequisite: CC 130 or consent of the instructor*) *Either semester*

CC 250 Public Speaking (3 crs.)

Study, evaluation and analysis of speech preparation with frequent practice of various speech types. Informative, persuasive, and special occasion topics emphasized. *Either semester*

CC 260 Group Communication and Decision Making (3 crs.)

Extends theoretical knowledge of small group behavior. Stress will be on implementation of theories in such areas as leadership, roles of group members, conflict management, reasoning, argument and problem solving. *Either semester*

CC 270 Interpersonal Communication (3 crs.)

The description and analysis of interpersonal interaction and human relationships as they occur in everyday settings. *Either semester*

CC 280 Developing Creativity (3 crs.)

The purpose of this course is to increase the degree to which students recognize and nurture their creative potential, especially in sensing and meeting problems and challenges in all aspects of their academic and personal lives. *Either semester*

CC 286-287 Sophomore Honors Colloquium (1 cr. each semester)

Sophomore Honors Colloquia in Communication Studies allow exceptionally able students to explore a challenging topic in small classes under close faculty supervision. Colloquia meet once a week for fifty minutes and culminate in a paper or scientific project which provides the major part of the grade. Open to All-College Honors students and to others at the discretion of the instructor. The minimum enrollment is two and the maximum is twelve. Topics vary from semester to semester. (*Prerequisite: consent of the instructor*) *CC 286 fall semester, CC 287 spring semester*

Communication Studies & Theatre Arts

CC 290 Beginning Videography (3 crs.)

This course is a study of the styles and techniques of video production. Students work with the different elements of video production such as camera, sound, editing, and script. (Prerequisites: CC 215) *Once a year*

CC 295 Communications Studies Research (3 crs.)

This course provides an introduction to communication research, methods, and writing style. (Prerequisites: CC 130, CC 220, CC 230)

CC 300 Television, Minorities, and Cultural Diversity (3 crs.)

Roles and images of Blacks and other minorities as portrayed in radio and television. Also examines economic and aesthetic participation of minorities in programming decisions, reflecting ethnic and multicultural dimensions of programming. *Once a year*

CC 301 Introduction to Public Relations (3 crs.)

This course provides the student with a knowledge of the history, goals, objectives and skills associated with public relations. It offers students an opportunity to utilize acquired communication skills in a specific career area as well as giving students the opportunity to acquire writing, reasoning, listening, speaking and other skills required in public relations work. Case study analysis and hands-on applications are primary teaching/learning methodologies. (Prerequisite: CC 130) *Either semester*

CC 305 Advanced Forensics Laboratory (3 crs.)

After advanced individual work in speech composition and delivery, the student will be required to prepare a variety of speech types for intercollegiate competition. (Prerequisites: CC 110 or consent of instructor) *Fall semester*

CC 312 Writing for Public Relations (3 crs.)

This course will offer the student writing experience in various forms of public relations including writing assignments that would be typical in both non-profit and business organizations. Included are press releases, brochures, newsletters, feature stories, and speeches. The computer is the essential technology for this course. (Prerequisite: CC 301) *Once a year*

CC 320 Mass Communication in Society (3 crs.)

This course reviews theory and research in the field of mass communication. Special attention will be paid to the evolution of the concept of the mass audience and current concerns about the effects of media content on individuals and society. (Prerequisite: CC 220 or equivalent) *Fall semester*

CC 325 Broadcast News Writing (3 crs.)

This course offers instruction in the writing of news and public affairs copy for radio and television. News gathering and writing assignments will be given weekly. (Prerequisite: EN 280)

CC 330 Business and Professional Communication (3 crs.)

Increases levels of competence in negotiating, interviewing, evaluating, leading and presentational skills. This course stresses abilities needed to attain cooperation and exert influence in corporate and public sector work environments. *Spring semester*

CC 335 News and Politics (3 crs)

Develop an understanding of political, social, cultural events as they affect print and electronic journalism. (Prerequisite: CC 220) *Once a year*

CC 338-339 Honors Tutorial (3 crs. each semester)

Special topics in speech communication. Open to All-College and Departmental Honors students. Three hourly meetings weekly. (Prerequisite: consent of the department) *CC 338 fall semester, CC 339 spring semester*

CC 341 Public Relations Case Studies (3 crs.)

This course addresses crucial dimensions of strategic planning and implementation of public relation programs and campaigns. Focus will be on managerial decision-making role, strategies of communication selected, and the evaluation of the PR campaigns. Cases will be from business, government, and the non-profit sector. (Prerequisite: CC 301) *Every other semester.*

CC 343 Nonverbal Communication (3 crs.)

This course is designed to provide the student with theoretical knowledge and practical analytical application of the field of nonverbal communication and its importance in the field of communication. (Prerequisites: CC 130, CC 250, CC 260)

CC 345 Writing for Radio and Television (3 crs)

Course includes sports, documentaries, interviews, commercials, PSA's, and/or comedy. Requires knowledge of production elements used in radio and television. (Prerequisites: EN 280, CC 215, CC 325)

CC 352 Advanced Group Communication and Leadership (3 crs)

This course will focus on the issues of group dynamics and leadership found at all levels of society. It will build on the fundamentals of group dynamics and leadership which were covered in group communication, and provide advanced work in theory of groups and theory of leadership. Students will be expected to make significant analysis of all group dynamics and make recommendations for change. (Prerequisites: CC 130, CC 295, CC 260) *Once a year*

CC 360 Argumentation and Advocacy (3 crs.)

The theory and practice of argument in various fields, including debate, public address, and interpersonal communication will be explored.

CC 365 Introduction to Intercultural Communication (3 crs.)

Introduction to Intercultural Communication is a course designed to acquaint students with the factors which affect interpersonal relationships among people of differing cultural backgrounds. Foreign as well as native-born persons are encouraged to take the course. Course objectives are to enable students to become more sensitive to and tolerant of values and ideas expressed by others. *Spring semester*

CC 375 Broadcast Programming (3 crs.)

Understanding the interrelationship between programming and promotion, interdependence of cable and other video technology on TV programming; differentiate between strategies of radio and TV programming, differentiate between affiliated stations and network owned and operated stations. Case studies. (Prerequisites: CC 220, CC 320)

*School of Arts & Sciences***CC 380 Broadcast Station Administration (3 crs.)**

Teaches students the fundamentals of radio and television programming and management. Programming for both public and commercial stations. The problems of station management will be covered including: regulations, personnel, sales, economics, program sources, grant writing, rating and research. Provides students with comprehensive assessment of the broadcast management experience.

CC 390 Television Direction I (3 crs.)

This course will work with the elements of television: lighting, composition, use of camera, movement, sound, working with talent, format and genres. (Prerequisites: CC 215, and/or CC 290, CC 345) Fall semester

CC 391 Public Relation Practicum (3 crs.)

This course is designed to provide students with the opportunity to integrate their communication skills through supervised application of these skills in a public relations setting. Using a 30 hour required field experience as a focal point, students will utilize research, organizational thinking, writing and speaking skills throughout the semester. (Prerequisite: CC 301) Either semester

CC 395 Communication Theory (3 crs.)

Focus on contemporary perspectives vital to understanding and critiquing communication, public communication, and rhetoric. (Prerequisites: CC 130, CC 230, CC 295). Either semester

CC 396 Mass Communication Theory and Research (3 crs.)

Historical-critical look at various theories of mass communication. May include past and present media research theory and techniques, including; focus groups, rating systems, UPC codes and public opinion polling. (Prerequisites: CC 220, CC 295, CC 320). Once a year

CC 399 Topical Studies (3 crs.)

Variable contemporary topics in communication. (Prerequisite: Dependent on topic) Either semester

CC 402 Interpersonal Conflict Resolution (3 crs.)

This course introduces the theory, research and practice associated with interpersonal conflict resolution. Students seeking careers in public relations, sales, business, organizational development and advocacy will benefit from this analysis of communication processes. (Prerequisites: CC 270 or consent of the instructor) Fall semester

CC 420 Mass Communication Rules and Regulations (3 crs.)

This course provides and examination of the rules and regulations that pertain to the mass communication industries. The course will review federal agencies such as the FCC and the FTC and applicable State and Federal laws. (Prerequisite: CC 220 or the equivalent) Spring semester

CC 426 Critical Perspectives on Mass Communication (3 crs.)

This course focuses on theories of mass communication used for critiquing the major forms of mass media around the world. The theories include: dramatism, semiotics, Marxist view, popular culture and rhetorical analysis. (Prerequisite: CC 320)

CC 450 Persuasion (3 crs.)

This course will examine persuasion as a tool for modifying the beliefs, attitudes, and behaviors of others. Applications of persuasion to the fields of communication and mass communication including advertising, public relations, marketing, programming, and station management, as well as the social and political dimensions of democracy. (Prerequisites: CC 295, CC 395) Once a year.

CC 452 Organizational Communication (3 crs.)

Analysis of communication problems in modern complex organizations, theory and practice. (Prerequisites: CC 130 or consent of the instructor) Spring semester

CC 462 Patterns of International Communication (3 crs.)

A study of communication systems throughout the world. Students will focus on media as it functions within a variety of political systems. (Prerequisites: CC 130, CC 395, CC 320 or consent of the instructor) Spring semester

CC 472 Communication Training and Development (3 crs.)

In this course, students will learn the theory of Communication Training and Development, and learn how to apply that theory in specific interpersonal, group, public and organizational contexts. (Prerequisites: CC 130, two of the following: CC 250, CC 260, CC 270). Once a year

CC 485 Honors Thesis (3 crs.)

This course is open to All-College and Departmental Honors students. One-hour weekly meetings with the thesis director will culminate in an honors thesis. With the consent of the Departmental Honors Committee and the thesis director this course may be extended into a second semester for three additional credits depending upon the scope of the project. Whether the final version of the thesis qualifies the student to graduate with honors will be determined by the Departmental Honors Committee. Either semester

CC 495 Communication Studies Seminar (3 crs.)

This seminar will pursue in depth certain themes and topics in the area of the communication studies. (Prerequisites: CC 295, CC 395) Either semester

CC 496 Seminar in Mass Communication (3 crs.)

This seminar will pursue in depth certain themes and topics in the area of Mass Communication. (Prerequisites: CC 295, CC 396). Once a year

CC 497 Communication in the Classroom (1-3 crs.)

This course is designed to provide a student majoring in any education program with practical skills and knowledge associated with communication in the classroom, school and community. (Prerequisite: Matriculation into an education program)

CC 498 Internship in Communication (3-15 crs.)

A non-classroom experience designed for a limited number of junior and senior majors to complement their academic preparation. (Prerequisite: consent of the department, formal application required) Either semester

Communication Studies & Theatre Arts

CC 499 Directed Study in Communication (1-3 crs.)

Open to juniors and seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits. (*Prerequisite: consent of the department, formal application required*) Either semester

CC 502 Research (credit to be arranged)

Original research undertaken by the graduate student in his or her field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

CC 503 Directed Study (credit to be arranged)

Designed for the graduate student who desires to study selected topics in a specific field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

CC 504 Communication Skills Overview (3 crs.)

This course is designed to provide students an opportunity to review their basic communication skills at all major levels and, with the assistance of the instructor, to diagnose particular areas of strength and weakness to be reinforced or improved upon in subsequent graduate school courses. (*Prerequisite: CC 130 or equivalent*)

CC 505 Communication Theories Overview (3 crs.)

This course is designed to provide students with information concerning current developments in communication theory and a basis for the generation of thesis research problems. Theoretical formulations of general semantics, rhetoric, interpersonal communication, intercultural communication, group dynamics and persuasion will be included. (*Prerequisite: CC 395 or equivalent*)

CC 506 Communication Research Methods Overview (3 crs.)

This course is designed to provide students with the tools necessary to create meaningful and competent thesis, research, and project plans. Quantitative and nonquantitative research are covered, as well as project creation. (*Prerequisite: CC 495 or equivalent*)

CC 507 Communication Studies Education: Teaching Human Communication Courses in the College and University (3 crs.)

This course provides an analysis of current objectives, problems, and methods of teaching communication at the college level. Selection and preparation of teaching materials will be discussed. Evaluation techniques will be introduced and critiqued. Methods of relating speech to other subject areas will be explored.

CC 508 Classical and Medieval Rhetoric (3 crs.)

The course examines the traditions of rhetorical theory of antiquity. Students will analyze the evolution of rhetorical theory from the Sophists through the Medieval Rhetoricians, comparing and contrasting their perceptions of rhetorical principles and practices. (*Prerequisite: CC 395 or consent of the instructor*)

CC 511 Laboratory in Interpersonal Communication (3 crs.)

This course provides an extensive examination, diagnosis, and treatment of interpersonal communicative behavior of the individual. Emphasis is on the development and enrichment of interpersonal communicative skills and on theoretical perspectives for analyzing the

structure of interpersonal communication. Interpersonal communication structures to be studied include communication as a ritual, role, game, personal strategy and a striving for intimacy.

CC 512 Public Communication (3 crs.)

An introduction to the methods of rhetorical research and historical critical inquiry as applied to the study of social movements, issues, and speeches.

CC 513 Laboratory in Small Group Communication (3 crs.)

Extensive and intensive experience in small group communication focusing on group participation and leadership. Emphasis will be placed on the transmission, analysis, and processing of messages, and on the roles and functions of group membership.

CC 514 Coaching and Directing Forensics (3 crs.)

A study of the philosophies, problems, and techniques associated with forensic activities; recent trends and practices in co-curricular programs; critical evaluation of related research.

CC 515 Male/Female Communication (3 crs.)

A study of the gender variable in communication in four areas: 1) intrapersonal communication-socialization and self concept; 2) interpersonal relations between the sexes; 3) communication in structured groups; and 4) public communication—male and female orators.

CC 516 Seminar in Intercultural Communication (3 crs.)

Analysis and comparison of communicative styles in different cultures. Investigation of differences in messages, communicative forms, target persons, defensive styles, and interpersonal processes of establishing, developing, and terminating relationships.

CC 520 Group Leadership (3 crs.)

This course focuses on responsibilities, theories, and practices associated with group leadership.

CC 525 Seminar in Mass Communication (3 crs.)

Examination of the audience of mass communication in terms of the uses and gratifications theories. (*Prerequisite: CC 320 or equivalent*)

CC 530 Problems in Organization Communication: Diagnosis and Treatment (3 crs.)

Analysis and treatment of specific common problems and communication breakdown and information overload in organizational structures. (*Prerequisite: CC 452 or equivalent*)

CC 535 Seminar in Communication Theory (3 crs.)

This course explores major communicative theories in depth.

CC 540 Scholarship and Criticism in Communication Studies (3 crs.)

The study of current scholarship and criticism in communication and rhetoric. Students will do library research, prepare written work for criticism and critique the work of others. Presentations will be written and oral. Work will conclude with a scholarly research paper. (*Prerequisite: CC 505*)

School of Arts & Sciences

Theatre Arts

A student majoring in Theatre Arts will be required to complete 4 semester hours of practicum (CT 140, CT 170, CT 185) of which a minimum of 2 semester hours must be in CT 170 or CT 185.

CT 110 Theatre Appreciation (3 crs.)

This course introduces the student to the roles of theatre artists, the special nature of live theatrical performances, the art of theatre as an expression of human experience and to the richness and variety of the heritage of the theatre. Theatre attendance is required. This course is suitable for students from a variety of majors other than theatre seeking a basic knowledge of theatre. Satisfies the GER in Artistic Modes of Expression. *Either semester*

CT 115 Play Production (3 crs.)

This course introduces the student to the processes involved in the creation of theatre art. The student develops an understanding of the aesthetics and conventions of the theatrical event through observation and structured applied experience in the basic practices involved in planning and performing. Attendance at a theatre performance is assigned and additional laboratory time is required. Satisfies the GER in Artistic Modes of Expression. *Either semester*

‡CT 140 Theatre Performance Practicum (1 cr.)

Credit is given for sixty (60) or more hours per semester of rehearsal and performance time in a major production. Audition is required. *Either semester*

***CT/PE 146 Dance Appreciation (3 crs.)**

This course is designed to explore the basic components of dance and to enable students to appreciate the art of dance as an informed audience and as participants in its rich variety. Satisfies the GER in Artistic Modes of Expression.

‡*CT/PE 155 Dance Practicum (1 cr.)

In this class students will choreograph and rehearse dances for a concert performance. Concurrent enrollment in a dance class is strongly advised. *Fall semester is open to all; spring semester is open by audition only.*

***CT/PE 156 Movement and Dance for Actors (3 crs.)**

Exercises in developing and communicating a character through movement. Introduction to theatre movement, dance, styles and conditioning.

CT 160 Stage Make-up (1 cr.)

Study and practice in the art of straight and character make-up for the stage. Meets twice weekly for two hours for one quarter.

**Offered for credit for both the Communication Studies and Theatre Arts department and the Movement Arts, Health Promotion and Leisure Studies department.*

‡Note: From the one-credit co-curricular activities, CC 110, CT 140, CT 155, and CT 185, and from any and all co-curricular activities for which the college grants credit, a student may accumulate not more than one credit per semester (two per year) nor more than six per four-year degree program. Exception: All one credit co-curricular and Physical Education activity courses that are required for officially enrolled and graduating students in an approved major, concentration or minor may be counted towards graduation.

‡CT 170 Technical Theatre Practicum (1 cr.)

Credit is given for 60 or more hours per semester of technical work on a major production. Two of the required four practicum credit hours must be earned in CT 170 or CT 185. *(Prerequisite: consent of the instructor). Either semester*

CT 175 Design Techniques for the Stage (3 crs.)

This studio course develops the skills and techniques of visual communication of design ideas and explores period styles and furnishings. The course focuses on basic drafting, sketching, and drawing, watercolor rendering, and period research. (Meets four hours weekly.) *Offered alternate years*

‡CT 185 Theatre Management Practicum (1 cr.)

Credit is given for 60 or more hours per semester of work in audience development, publicity, box office, and house management activity in connection with departmental productions. Two of the required four practicum credit hours must be earned in CT 170 or CT 185. *(Prerequisite: consent of the instructor) Either semester*

CT 210 Oral Interpretation (3 crs.)

Analysis and oral reading of prose, poetry and drama; individual and group forms, theory and practice. Satisfies the GER in Artistic Modes of Expression.

CT 211 Voice Production for Theatre (3 crs.)

This course provides an analysis of each student's vocal habits in performance. Exercises which concentrate on good vocal habits and techniques for the performing artist, training in physical perception of the sounds of "good American speech" and manipulation of the variables of speech for stage interpretation are included. The course provides an introduction to the vocal performance of Shakespeare. *Spring semester*

CT 220 Play Analysis for Production (3 crs.)

The objective of the course is to train theatre artists in methods of play analysis for production which can be applied to diverse periods and styles. The works explored range through early Greek, Elizabethan, Restoration and Georgian, Neoclassicism, Realism, Expressionism, and Theatre of the Absurd. *(Prerequisite: CT 110 or CT 115) Fall semester*

CT 222 Asian Theatre (3 crs.)

This course introduces the theatre of several Oriental cultures and their aesthetic foundations in ritual and myth. Included are Sanskrit, Chinese, Japanese and other Asiatic traditions. Satisfies the GER in Non-Western Civilization. *Spring semester*

CT 226 Children's Theatre (3 crs.)

Theatre for the child audience: The study of styles and structures for children's theatre and analysis of representative theatre pieces for children. Opportunity for performing selected pieces. Satisfies the GER in Artistic Modes of Expression.

CT 230 Creative Dramatics (3crs.)

Development of the child's creative faculties through the use of dramatic play in laboratory sessions as well as classroom activity. *Offered alternative years*

Communication Studies & Theatre Arts

CT 236 The American Musical Theatre (3crs.)

Major trends in the evolution of the American Musical Theatre from its origin to the contemporary Broadway musical. Examination of major works of leading composers, librettists, performers, producers, and choreographers. Satisfies the GER in Artistic Modes of Expression.

CT 241 Improvisational Acting (3 crs.)

Development of the student's capabilities in interpreting their awareness of life through concentration, imagination, and observation for role playing.

CT 242 Acting I (3crs.)

Development of appreciation and basic skills in the fundamentals of acting. Introduction to established systems of acting and to character and script analysis. (*Prerequisite* CT 115) *Spring semester*

CT 243 Acting II (3 crs.)

Advanced problems and projects, with intensive scene analysis and character analysis. (*Prerequisites*: CT 115, CT 242 or consent of the instructor) *Offered alternate years*

CT 247 Performing the Musical (3 crs.)

The course is a laboratory experience in the performance of musical theatre. The student studies the aspects of movement, singing, and acting as they are unique to musical theatre performance. Songs, dances, and scenes will be staged, directed and critiqued.

***CT/PE 251 Dance History (3 crs.)**

Examination of dance as a social and artistic force from primitive to modern times. Class will include lecture and film as well as performance of dances in historical styles. Satisfies the GER in Artistic Modes of Expression.

***CT/PE 255 Creative Dance I (3 crs.)**

This course investigates the theory of dance through participation, composition, lecture, discussion and film. Students learn about the elements of space, time, force, movement and style. Satisfies the GER in Artistic Modes of Expression. *Fall semester*

***CT/PE 256 Creative Dance II (3 crs.)**

The use of basic elements of dance to form a set movement composition. Exercises in choreography and experiences in setting a dance for performance. (*Prerequisite*: CT/PE 255) *Spring semester*

***CT/PE 259 Dance Repertory (1 crs.)**

Students are taught a major choreographic work and rehearse it for performance. *Spring semester*

**Offered for credit for both the Communication Studies and Theatre Arts department and the Movement Arts, Health Promotion and Leisure Studies department.*

†Note: From the one-credit co-curricular activities, CC 110, CT 140, CT 155, and CT 185, and from any and all co-curricular activities for which the college grants credit, a student may accumulate not more than one credit per semester (two per year) nor more than six per four-year degree program. Exception: All one credit co-curricular and Physical Education activity courses that are required for officially enrolled and graduating students in an approved major, concentration or minor may be counted towards graduation.

CT 265 Stage Costuming (3 crs.)

This course covers principles and techniques of costuming for the stage, including design and construction of costumes and organization of costuming for theatrical production. Additional laboratory time is required. *Offered alternate years*

CT 272 Stagecraft (3 crs.)

Theory and production of technical theatre with emphasis on planning the production. Study and practice in stage management, set construction, and properties. Additional laboratory time is required. (*Prerequisite*: CT 115) *Spring semester*

CT 278 Scene Design (3 crs.)

Theory and practice of designing for stage productions. (*Prerequisite*: CT 115)

CT 280 Theatre Management (3 crs.)

Study of the commercial aspects of theatrical production: publicity, programs, financing, ticket sales and house management. (*Prerequisite*: CT 115)

CT 282 Community Theatre (3 crs.)

Trends, organization, and practices of local and regional theatrical groups.

CT 338-339 Honors Tutorial (3 crs. each semester)

Special topics in Theatre Arts. Open to All-College and Departmental Honors students. Three hourly meetings weekly. (*Prerequisite*: consent of the department) *CT 338 fall semester, CT 339 spring semester.*

CT 343 Acting for the Camera (3 crs.)

This course develops specialized techniques necessary for performance as an actor for film or television. (*Prerequisite*: CC 210 or CT 211; CC 212 recommended)

CT 346 Voice and Dialect for the Stage (3 crs.)

This course explores and provides practice in vocal training techniques, and develops the student's skills in dialects for performance. (*Prerequisites*: CT 115, CT 242; CT 211 or CC 210)

CT 347 Laboratory Theatre Production (3 crs.)

Analysis and practice in selection of playscripts, acting and directing techniques in rehearsal, culminating in the performance of a production. Entrance to the course is by audition or interview. Junior or senior standing is required. May be taken twice for credit. *Fall semester*

CT 348 Acting Shakespeare (3 crs.)

Exploration and practice of performing Shakespeare. Theory analysis of rhythms, timber, phonetics and poetic devices for performance; scenes, monologues, and written analysis. (*Prerequisites*: CT 115, CT 242, CT 243; and either CT 211 or CC 210) *Spring semester*

CT 349 Comedy on Stage (3 crs.)

Analysis and practice of theatrical comedy, including techniques appropriate to the interpretation and presentation of humorous dramatic scenes in the classroom. (*Prerequisites*: CT 115, CT 242 or consent of the instructor) *Offered alternate years*

School of Arts & Sciences**CT 353 Creative Dance for Children (3 crs.)**

The study and experience of dance as a creative art activity for children. For those planning to work with children in schools, camps, community centers, or enrichment programs. (*Prerequisite: One three credit dance course or consent of the instructor*)

CT 356 Advanced Movement for the Actor (3 crs.)

Exploration and practice in advanced stage movement techniques including stage combat, tempo and rhythm work, physical punctuation and phrasing, mask work, advanced conditioning for the working actor, kinesthetic awareness, and Movement Theatre. Individual and group projects and performances. (*Prerequisites: CT 156, CT 115, CT 242, CT 243; and either CT 211 or CC 210*) Spring semester

***CT/PE 357 Dance Production Theory (2 crs.)**

This course provides the opportunity to choreograph and plan the presentation of a major dance work. Lectures and practical assignments in choreography and stagecraft for dance result in a plan for a dance piece. (*Prerequisites: CT/PE 255 and CT/PE 256, or consent of the instructor*) Fall semester

***CT/PE 358 Dance Production Techniques (1 cr.)**

Provides students the opportunity to set a choreographed work for dancers and rehearse for presentation. Spring semester

CT 372 Advanced Stagecraft (3 crs.)

This course presents advanced principles and techniques of employing specialized materials and processes in preparing scenery and properties for the stage. A laboratory is required. (*Prerequisites: CT 115, CT 272*) Offered alternate years

CT 376 Stage Lighting (3 crs.)

Materials and techniques fundamental to contemporary stage lighting; analysis of the principles of design as they relate to contemporary theatre production. Offered alternate years

CT 399 Topical Studies (3 crs.)

Variable contemporary topics in theatre. Either semester

CT 421 Theatre History I (3 crs.)

Trends in dramatic and theatrical developments throughout the western world from Ancient Greece to the 17th century. Not open to freshmen. Fall semester

CT 422 Theatre History II (3 crs.)

Trends in dramatic and theatrical developments throughout the western world from the 17th century to the present. Not open to freshmen. Spring semester

CT 430 Playwriting (3 crs.)

Appreciation of the nature of the play as an art form. Analysis of plays of various types. Practice in writing.

CT 431 Directing I (3 crs.)

Basic knowledge and techniques for the beginning director. Play analysis, composition, movement, characterization and rehearsal. Formerly CT 332. (*Prerequisites: CT 115, CT 242 or consent of the instructor*) Spring semester

CT 432 Directing II (3 crs.)

This course considers the principles of direction and various theories of direction with practical experience in directing scenes for the stage. (*Prerequisites: CT 115, CT 242, CT 431*)

CT 442 Acting Styles (3 crs.)

Analysis and practice of styles of acting and staging methods of selected historical periods and modern movements considered classics in the development of theatre, including the Greek, Elizabethan, Restoration, Georgian, and neoclassic periods and schools, and the works of such as Ionesco, Brecht, Beckett, and Moliere. Improvisations, scenes, monologues. (*Prerequisites: CT 115, CT/PE 156, CT 242, CT 243, CC 210 or CT 211*)

CT 455 Audition Techniques (3 crs.)

This course explores and practices audition theory and techniques. Audition pieces of various styles and periods are developed and critiqued. Different formats for auditions are utilized. (*Prerequisites: CT 211, CT 115, CT/PE 156, CT 242, and CT 243*)

CT 485 Honors Thesis (3 crs.)

This course is open to All-College and Departmental Honors students. One-hour weekly meetings with the thesis director will culminate in an honors thesis. With the consent of the Departmental Honors Committee and the thesis director, this course may be extended into a second semester for three additional credits depending upon the scope of the project. Whether the final version of the thesis qualifies the student to graduate with honors will be determined by the Departmental Honors Committee. Either semester

CT 495 Seminar in Contemporary Theatre (3 crs.)

This is a required capstone course for students graduating with a concentration in theatre. The course deals with issues in contemporary theatre and practical matters surrounding careers in theatre. Recital, portfolio, or thesis is required. (*Prerequisite: senior standing, theatre concentration*) Fall semester

CT 496 Seminar in Theatre, Dance and Speech Communication (3 crs.)

This course is designed to prepare the teacher of communication, theatre and dance for certification in Communication and Performing Arts. It will address the interrelationships among the three areas as well as current trends and research in all three specialties. Offered alternate years, spring semester

CT 497 Advanced Individual Projects (1-3 crs.)

The student contracts with faculty to explore learning activities of a creative nature beyond the scope of regular course offerings. (*Prerequisites: junior standing; consent of faculty supervisor; course prerequisites depend on project*)

Communication Studies & Theatre Arts

CT 498 Internship in Theatre (3-15 crs.)

A non-classroom experience designed for a limited number of junior and senior majors to complement their academic preparation. *(Prerequisite: consent of the department; formal application required)* Either semester

CT 499 Directed Study in Theatre (1-3 crs.)

Open to juniors and seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits. *(Prerequisite: consent of the department; formal application required)* Either semester

CT 502 Research (credit to be arranged)

Original research undertaken by the graduate student in his or her field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

CT 503 Directed Study (credit to be arranged)

Designed for the graduate student who desires to study selected topics in a specific field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

Media**ME 454 Script Writing for Radio, Television, and/or other Media (3 crs.)**

This course explores the many techniques necessary for the design of scripts for actual studio production. *Offered alternate years, fall semester*

ME 456 Radio and TV Production I (3 crs.)

The student will learn all of the technical operations necessary to direct radio and TV programs. Students will work on actual productions. *Fall semester*

ME 458 Radio and TV Production II (3 crs.)

Designed to make the students 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. *(Prerequisite: ME 456 or consent of the instructor)* Spring semester

ME 466 Cinematography I (3 crs.)

Basic film production techniques and their applications are taught. Topics such as scripting, the motion picture camera, lighting, shooting, splicing and editing are included. Students will work with super 8mm and/or 16mm equipment and materials. *Either semester*

ME 499 Directed Study in Non-Print Media (1-3 crs.)

Open to juniors and seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits. *(Prerequisite: consent of the department)* Either semester

ME 556 Operation and Control of a Radio Station and a Television Studio (3 crs.)

This course is intended for graduate students who are planning to be media specialists. It is designed to give the student an operational knowledge of the skills necessary to operate a radio station and a television studio. Production skills are also included.

ME 558 Radio and Television Production (3 crs.)

This course is intended for graduate students who are planning to be media specialists. It provides for the student with basic background in radio station and television studio operation opportunities to practice production and programming. *(Prerequisite: ME 566 or consent of the instructor)*

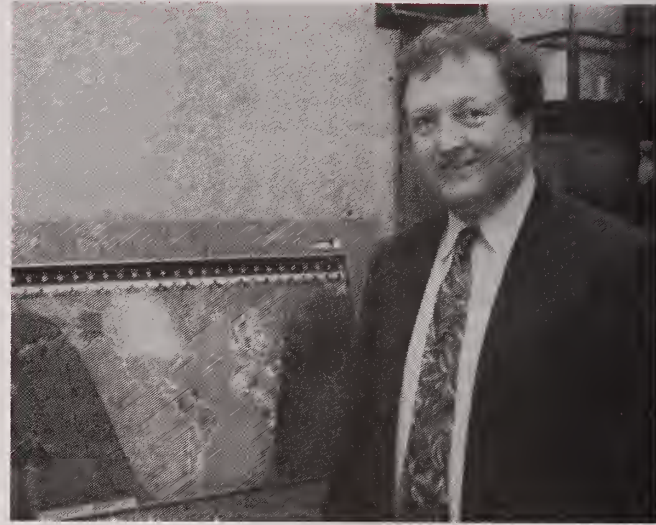
ME 566 Cinematography II (3 crs.)

Advanced techniques of film production in all of its technical phases, including production, design, editing, and sound synchronization. *(Prerequisite: ME 466 or consent of the instructor)*

Department of Earth Sciences & Geography

Faculty

- Chairperson:** Assistant Professor Sandra Clark
- Professors:** Robert Boutilier, Vernon Domingo,
Richard Enright, Glenn Miller,
Jacek Sulanowski
- Associate Professor:** Madhusudana Rao
- Assistant Professors:** Bettina Aten, Peter Saccocia
- Instructor:** James Hayes-Bohanan



The Department of Earth Sciences and Geography offers undergraduate majors in earth sciences and geography. Majors in earth sciences may elect a concentration in earth science or geology, or earth science with a minor in secondary education for teachers. Majors in geography may elect a concentration in environmental geography, geotechnology, or regional and economic planning or double major with education. In addition, programs in chemistry-geology, oceanography, and urban affairs and planning are available. See the *Interdisciplinary and Pre-Professional Programs* section of this catalog.

The Department works actively with state and regional agencies on socio-economic and environmental problems. Past faculty research projects include coastal storm impacts, regional economic developments, transportation planning, the impact of PCBs in New Bedford Harbor, and the search for water supplies for the next century.

The Department has been involved with assisting local firms through faculty research and student internships. Examples of such involvement are with local banks, supermarket chains, the MBTA, Ocean Spray, and the USDA Soil Conservation Service.

Additionally, this department has been selected as the only department in the state college system in Massachusetts to participate in the NASA sponsored JOVE program. Members of the faculty collaborate with the Jet Propulsion Laboratory

(on multi-spectral and hyperspectral remote sensing), the Goddard Space Flight Center (on bolide impact), the U.S. Department of Transportation (on a national study of bus systems), Woods Hole Oceanography Institute (on marine geochemistry and geology), the Massachusetts Department of Education (on statewide curriculum reform), and the U.S. Army Corps of Engineers (on wetlands). Faculty are also involved in watershed studies in cooperation with Biology Department faculty at the Raytheon Watershed Access Laboratory. In addition, a member of the faculty has an appointment as Guest Investigator at the Woods Hole Oceanography Institution on Cape Cod and has research opportunities in marine geochemistry and geology. Two other professors are actively engaged in statewide curriculum reform. The geography faculty maintains the Southeastern Massachusetts Global Education Center's Resource Center.

A program leading to the degree of Master of Arts in Teaching (M.A.T.) with a concentration in earth sciences is offered by the Department. An M.A.T. in Social Sciences with an emphasis on geography is available in cooperation with the History Department.

Modern equipment enables the Department to offer investigation oriented laboratory experience. This equipment includes: (1) an X-ray Diffractometer with powder cameras; (2) thin section equipment; (3) polarizing and stereoscopic microscopes; (4) atomic absorption spectro-photometer; (5) a proton

Earth Sciences & Geography

procession magnetometer; (6) earth resistivity unit; (7) Frantz Isodynamic Separator; (8) 14-foot coastal research vessel; (9) a computer laboratory; (10) a portable gamma-ray spectrometer; (11) Sunsparc 20 UNIX work station; (12) Hewlett Packard capillary gas chromatograph; (13) GPS surveying equipment; (14) a portable visible-near infrared, spectroradiometer; and (15) groundwater sampling equipment.

In addition, the Department has a well-equipped remote sensing and cartographic laboratory with a large format digitizer planimeter and an 8-pen plotter, a computer laboratory, a climatological station with solar radiation recording instrumentation, a solar greenhouse classroom at the Burnell Campus School, an astronomy observatory, a wet geochemistry laboratory, and a wet as well as dry sedimentology laboratory. Finally, this Department has access to a scanning electron microscope through the Southeastern Massachusetts Consortium. The department has an active Earth Sciences and Geography Club, a chapter of *Gamma Theta Upsilon*, the international geography honor society, and a chapter of *Sigma Gamma Epsilon*, the geology honor society.

Undergraduate Programs

Geography

Geography Major

Where will you go from here? Wherever it is, a major or minor in geography can provide you with a way to examine your world with objectivity. You can be trained to analyze the water-use and land-use opportunities in your communities, to understand the interrelated systems which keep the land and sea resources in balance, and to appreciate the varied ways in which people all over the world use those resources. Our graduates have found employment as planners, environmental analysts, teachers, market researchers, cartographers, and administrators. Many of our geography majors have gone on to earn advanced degrees from leading graduate schools.

The following concentrations are found within the geography major. They are of relevance to careers or graduate study.

CONCENTRATION EMPLOYMENT OPPORTUNITIES

General	Teaching at both elementary and secondary school levels
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Environmental	Federal, state, and local agencies; private consulting firms
Geotechnology	Private firms; government agencies
Regional and Economic Planning	Government agencies—state and local planning agencies

Students are invited to meet with any of the geography faculty—Professors Clark, Domingo, Hayes-Bohanan, Miller, Rao, or Aten—to discuss the program.

Core Requirements

GE 100 Physical Geography
or
GE 120 The Physical World (with department consent)
GE 216 Cartography
or
GE 418 Computer Cartography
or
GE 419 Geographic Information Systems (GIS)
GE 203 Meteorology
or
GE 204 Climatology
or
GE 361 Geography of Environmental Problems
GS 110 Human Geography
GS 3—Regional Geography Course (at the 300 level)
GS 353 Urban Geography
or
GS 473 Political Geography
GS 362 Economic Geography
or
GS 363 Locational Analysis
GS 490 Seminar in Geography
GE 474 Quantitative Geography
MA141 Elements of Calculus I (Additional math is recommended)

No more than one "D" for a semester course in the major, taught in the department shall be accepted to fulfill the requirements for these programs.

General Geography Concentration

Core Requirements (see Geography major) in addition to the following:

GS 473 Political Geography (taken in core)

School of Arts & Sciences

Any three courses with at least one from each category:

- a) GS 300/400 Additional regional geography course
- b) GS/GE 300/400 Additional systematic courses

Students intending to teach are strongly urged to take GS 320, Geography Methods and Materials.

Environmental Geography Concentration

Core Requirements (see Geography major) in addition to the following:

GE 361 Geography of Environmental Problems (taken in core)
Three courses (select one course each from three of the four categories):

- a) GE 307 Management and Preservation of Natural Environment
- b) GE 203 Meteorology
or
GE 204 Climatology
- c) GE 498 Internship (maximum 3 credits towards concentration)
- d) ES 240 Hydrology
or
ES 284 Geomorphology

Geotechnology Concentration

Core Requirements: (see Geography major) in addition to the following:

GE 419 Geographic Information Systems (GIS) (taken in core)
Any three courses out of at least 2 of the following categories:

- a) GE 216 Cartography
or
GE 418 Computer Cartography
- b) GE 317 Air Photo Interpretation/Remote Sensing
- c) GS 420 Principles of Urban and Regional Planning
or
GS 430 Geography of Transportation
or
GS 498 Internship (maximum 3 credits toward concentration)

Regional and Economic Planning Concentration

Core Requirements: (see Geography major) in addition to the following:

GS 353 Urban Geography (taken in core)

Any three of the following courses:

- GS 362 Economic Geography

GS 363 Locational Analysis

GS 420 Urban and Regional Planning

GS 430 Geography of Transportation

GE 498 Internship—highly recommended (maximum of 3 credits toward concentration)

Double Major with Elementary Education, Early Childhood Education or Special Education

Students may choose a double major in earth sciences or geography and elementary education, early childhood education or special education for certification purposes. Please contact the Department of Earth Sciences and Geography and the appropriate education department for further information.

Geography Minor

GE 100 Physical Geography

GS 110 Human Geography

Four additional geography courses (departmental approval required). Two courses must be at the 200 level or higher and must be from at least two of the following areas:

- a) a systematic course
- b) a topical course
- c) a techniques course

Earth Sciences

The major in Earth Sciences is a solid broad-based program that provides the student with an understanding and appreciation of the physical aspects of the earth and earth processes. Career opportunities for graduates exist in federal, state and local government service, industry, and environmental studies both with regulatory agencies and consulting firms. Teaching in the elementary, middle, and secondary schools is another option. Many of our Earth Science majors have been awarded full fellowships at leading graduate schools. In addition, the faculty have an extensive program of undergraduate research and many students have presented the results of their undergraduate research at various national meetings. Some of this research has been funded and students are encouraged to contact the faculty if interested. Internships are also available for those students desiring to prepare themselves for employment upon graduation. However, the internships are in addition to the 36 credits required of the major. Interested students are encouraged to contact the earth science/geology faculty: Drs. Boutilier, Enright, Saccocia, and Sulanowski to discuss possibilities and requirements of majoring in the Department.

*Earth Sciences & Geography***Bachelor of Science****Earth Sciences Major**

ES 100 Physical Geology
 ES 101 Historical Geology
 ES 284 Geomorphology
 ES 301 Solar System Astronomy
 or
 ES 302 Stellar and Galactic Astronomy
 GE 203 Meteorology
 ES 305 Physical Oceanography
 ES 372 Mineralogy
 ES 463 Petrology
 ES 496 Seminar in Geology

A minimum of three additional earth science courses selected with the adviser's approval

and
 MA 151-152 Calculus I-II
 or
 MA 141-142 Elements of Calculus I-II

CH 131-132 General Chemistry I-II
 or

CH 141-142 Chemical Principles I-II

Two semesters of physics courses or two semesters of biology courses selected with adviser's approval.

Not more than one "D" for a semester course in the major taught in the department shall be accepted to fulfill the requirements for this program.

Bachelor of Arts**Earth Sciences Major**

ES 100 Physical Geology
 ES 101 Historical Geology
 ES 301 Astronomy
 GE 203 Meteorology
 ES 305 Physical Oceanography
 ES 496 Seminar in Geology

A minimum of three additional Earth Science courses (9 credits) selected from the following: (other electives are possible if approved by the Department)

ES 194 Environmental Geology
 ES 240 Hydrology
 ES 284 Geomorphology
 ES 290 Dinosaur Paleobiology

ES 372 Mineralogy
 ES 463 Petrology
 ES 475 Paleontology

Plus,

CH 131 General Chemistry I
 3 credits in Biology or Physics with laboratory

Not more than one "D" for a semester course in the major taught in the department shall be accepted to fulfill the requirements of this program.

Minor in Secondary (High School) or Middle School Education

Students may minor either in Secondary (High School, grades 9-12) or Middle School (grades 5-9) Education. Successful completion of either of these programs will lead to Massachusetts Provisional with Advanced Standing Teacher Certification. Please refer to the Department of Secondary Education and Professional Programs for specific teacher certification and program requirements.

"Teacher of General Science" Option

This option is available for students who have met the requirements for Teacher of Earth Science through Bridgewater State College and wish to add Teacher of General Science certification through the new field option of the state regulations. Students who elect this option may take the courses listed below and request an independent transcript review through the Massachusetts Department of Education for General Science field.

CH 131-132 General Chemistry I-II
 or
 CH 141-142 Chemical Principles I-II*
 PH 181-182 Elements of Physics I-II
 or
 PH 243-244 General Physics I-II
 BI 121-122 General Biology I-II

*These courses are already required as part of the major.

Earth Sciences Minor

ES 100 Physical Geology
 ES 101 Historical Geology
 Four additional earth sciences courses (departmental approval required)

School of Arts & Sciences

Environmental Geosciences Concentration

ES 100 Physical Geology
ES 101 Historical Geology
ES 240 Hydrology
ES 283 Structural Geology
ES 284 Geomorphology
ES 372 Mineralogy
ES 476 Sedimentology and Stratigraphy
ES 496 Seminar in Geology

Plus a minimum of four other earth science courses selected with the written concurrence of the adviser. Other courses may be added or approved as substitutes with approval of the adviser.

Minimum cognate requirements include:

MA 141-142 Elements of Calculus I & II
or
MA 151-152 Calculus I & II
CH 131-132 General Chemistry I & II
or
CH 141-142 Chemical Principles I & II
PH 181-182 Elements of Physics I & II
or
PH 243-244 General Physics I & II
or
Two approved Biology courses

Students are encouraged to take in addition:

EN 201 Technical Writing
CH 343-344 Organic Chemistry
BI 117 Environmental Biology
BI 225 Ecology
BI 240 Plant Morphology
BI 327 Wetlands Biology

Geology Concentration

The concentration provides students with an understanding of the physical and chemical aspects of the earth and its internal as well as surface processes. Career opportunities for graduates exist in federal, state and local government service, industry, and environmental studies both with regulatory agencies and consulting firms. With the selection of appropriate electives, students will be prepared for government service, for environmental work related to the detection and monitoring of pollutants as well as for remediation of affected areas; and for careers in such fields as environmental geology, mining, or petroleum geology and hydrology. This concentration gives students a solid background in geology and the cognate sciences required to successfully pursue graduate work at leading universities.

ES 100 Physical Geology
ES 101 Historical Geology
ES 283 Structural Geology
ES 284 Geomorphology
ES 372 Mineralogy
ES 463 Petrology
ES 475 Paleontology
ES 496 Seminar in Geology

Four additional earth science courses selected with the adviser's approval.

Plus:

MA 151-152 Calculus I-II
or
MA 141-142 Elements of Calculus I-II
CH 141-142 Chemical Principles I-II
or
CH 131-132 General Chemistry I-II

Physics or Biology:

PH 243-244 General Physics I-II
or
PH 181-182 Elements of Physics I-II
or
two semesters of biology courses selected with the adviser's approval

Not more than one "D" for a semester course in the major shall be accepted to fulfill the requirements for this program.

Chemistry-Geology Major

A major in chemistry-geology is offered jointly with the Department of Chemical Sciences. See the catalog section *Interdisciplinary and Pre-Professional Programs* for details.

Geophysics Minor

A minor is jointly offered with the Department of Physics. For further information, contact the department chairpersons.

Double Major with Elementary Education, Early Childhood Education or Special Education

Students may choose a double major in earth sciences or geography and elementary education, early childhood education or special education for certification purposes. Please contact the Department of Earth Sciences and Geography and the appropriate education department for further information.

Earth Sciences & Geography

Graduate Programs

The department offers a graduate certificate program in geotechnology, as well as a program leading to the degree of Master of Arts in Teaching (MAT) with a concentration in earth sciences. In addition, earth science courses may be taken as part of the Master of Arts in Teaching program with a concentration in physical science. Geography courses may be taken as part of the Master of Arts in Teaching program with a concentration in social studies.

Graduate Certificate Program

Geotechnology

The Certificate Program in Geotechnology is designed to provide students with a good foundation in the fields of Geographic Information Systems and Satellite Remote Sensing technologies with a supporting background in the areas of computer science and management information systems. This program provides an understanding of geo-technologies to produce solutions to practical planning and management problems in the cultural and natural environments.

Required Courses:

	Credits
3 GS 565 Geo-Technology	
3 GE 419 Geographic Information Systems	
3 CS 410 Database Applications	
or	
CS 580 Database Systems	
or	
SO 403 Seminar - Social Data Analysis	
or	
GE 474 Quantitative Geography	
3 One advanced CS programming course (C or C++)	

Electives (Choose any four of the following).....12

- MG 445 Information Systems Management
- MG 450 Problems in Information Systems
- MG 480 Systems Analysis
- CS 520 Operating Systems Principles
- CS 593 Computer Networks
- or
- CS 430 Computer Networks
- CS 536 Graphics
- or
- CS 436 Computer Graphics
- GE 502 Research
- GE 503 Directed Study

- GE 418 Computer Cartography
- GE 417 Satellite Image Processing Applications to the Environment

Total Number of Credits for Certificate Program 24

Master of Arts in Teaching Clinical Master's Program

Earth Sciences

or

Social Studies

Certification Program (Standard Level)

This master's degree program is designed for persons who have provisional certification with advanced standing and are seeking standard certification in the areas of earth sciences or social studies (9-12, 5-9). (Students needing provisional certification with advanced standing should refer in this catalog to the program entitled "Post Baccalaureate Program: Provisional Certification with Advanced Standing for Secondary (Subject Areas: 9-12) and Middle Level (Subject Areas: 5-9) Teachers" under the *Department of Secondary Education and Professional Programs*.)

For information regarding application procedures and admission standards, students should consult the *Graduate School* section of this catalog.

Students seeking standard certification should consult the section of this catalog entitled *School of Education and Allied Studies* for information pertaining to professional certification, admission to and retention in Professional Education, as well as important institutional deadlines.

GP 501 Graduate Program Planning

All accepted students must enroll under the direction of their adviser in GP 501 Graduate Program Planning, which is described under "Graduate Adviser and Program Planning" in the *Graduate School* section of this catalog. As part of their program, students must satisfactorily complete the following curriculum:

Education Core

- ED 530 Research Methods
- ED 531 The Curriculum Experience
- ED 532 Critical Issues - Educators and Society
- ED 533 Effective Practices in Human Development & Learning
- ED 534 Clinical Experience (6 crs.)
- ED 537 Applied Research Project (2 crs.)

(Course descriptions for ED 530-537 are provided in the *School of Education and Allied Studies* section of this catalog.)

School of Arts & Sciences

Discipline Area Requirements

M.A.T. students are expected to have, or acquire in addition to degree requirements, an appropriate background of college level courses, to be determined by the department.

Required Courses: Earth Science

- ES 501 Observational Astronomy
- ES 504 Observational Meteorology
- ES 506 Coastal Geology and Oceanography
- ES 550 Modern Developments in Earth Science
- ES 590 Field Studies in Geology
- ES 537 Applied Research Project (1 cr.)

Required Courses: Social Studies

Geography Core:

Students must choose the following three courses if the Social Studies program emphasis is geography. Choose two if the program emphasis is history.

- GS 555 Field Methods in Geographic Enquiry
- GS 560 Seminar in Geographic Enquiry
- GS 580 The Regional Method in Geographic Analysis

History Core:

Students must choose three of the following if the Social Studies program emphasis is history. Students must choose two if the program emphasis is geography.

- HI 501 Seminar of History Methodology
- HI 540 Topical Seminar U.S. and Canada
- HI 550 Topical Seminar Europe
- HI 560 Topical Seminar Latin America
- HI 570 Topical Seminar Africa
- HI 580 Topical Seminar Asia

Students must also complete HI 537 or GS 537 Applied Research Project (1 cr.)

For further information regarding course requirements, candidates should contact the Department's graduate program coordinator.

Each student will be required to pass a comprehensive examination prior to being eligible to receive the Master of Arts in Teaching degree.

Students who successfully complete the above curriculum are eligible for standard certification.

Master of Arts in Teaching

Earth Sciences

Physical Sciences

Social Studies

Program for Teachers with Standard Certification

This program is designed for secondary and middle level subject area teachers who have standard certification.

All accepted students must enroll under the direction of their adviser in GP 501 Graduate Program Planning, which is described under "Graduate Adviser and Program Planning" in the *Graduate School* section of this catalog. As part of their program, students must satisfactorily complete the following curriculum:

- GP 501 Graduate Program Planning
- ED 530 Research Methods
- ED 531 The Curriculum Experience
- ED 532 Critical Issues - Educators and Society
- ED 533 Effective Practices in Human Development & Learning

(Course descriptions for ED 530 - 533 are provided in the *School of Education and Allied Studies* section of this catalog.)

Discipline Electives

MAT students are expected to have, or acquire in addition to degree requirements, an appropriate background of college level courses, to be determined by the department.

A minimum of 18 approved graduate credits in the academic area of concentration, which meet the academic and professional objectives of the student, is required.

Successful completion of a comprehensive examination is also required.

Earth Sciences & Geography

Course Offerings*

Earth Sciences

ES 100 Physical Geology (3 crs.)

This is an introduction to the processes that formed and continue to shape the earth. Lecture topics include continental drift, rock and mineral forming processes, and the effects of agents of erosion such as glaciers, streams and waves. The laboratories develop skill in rock identification and map interpretation. Two hours of lecture and one two-hour laboratory period weekly. Satisfies the GER in physical and biological sciences. *Either semester*

ES 101 Historical Geology (3 crs.)

The origin and evolution of the earth and the life upon it. Two hours of lecture and one two-hour laboratory period weekly. (*Prerequisite: ES 100*) *Either semester*

ES 102 History of the Earth (3 crs.)

Temporal and spatial aspects of Earth in the Universe. Co-evolution of life and its home. Satisfies the GER in physical and biological sciences (non-lab) *Spring semester*

ES 194 Environmental Geology (3 crs.)

This course introduces students to the application of geologic principles in recognizing and controlling the effects of environmental problems such as earthquakes, volcanoes, floods, beach erosion, hazardous waste disposal and ground water quality. Satisfies the GER in physical and biological sciences (non-lab course). *Either semester*

ES 240 Hydrology (3 crs.)

Relations of surface to groundwater. Geologic controls of flow in ideal mathematical models and imperfect natural settings. Water supplies as renewable resource. Two hours of lecture and one two-hour laboratory period weekly. (*Prerequisite: consent of the instructor*) *Fall semester*

ES 283 Structural Geology (3 crs.)

Analysis and origin of rock structures. Two hours of lecture and two two-hour laboratory period weekly. (*Prerequisites: ES 100, 101*) *Spring semester*

ES 284 Geomorphology (3 crs.)

Relationships between gradational and tectonic forces and the resulting surface configuration of the earth. Two hours of lecture and one three-hour laboratory period weekly. (*Prerequisite: ES 100 or consent of the instructor*) *Fall semester*

ES 290 Dinosaur Paleobiology (3 crs.)

The most recent hypotheses concerning the paleogeography, functional morphology and paleoecology of the dinosauria are considered. Various causes advanced to account for their extinction 65 million years ago are critically appraised. (*Prerequisites: consent of the instructor*)

ES 300 Excursions in Geology (3-6 crs.)

Preliminary lectures on a study area, followed by 1 to 6 weeks of inter-

disciplinary field study leading to a final report. Travel and living expenses will be borne by students. Study area will most likely be in the western U.S., although foreign areas are possible. This course is of interest to archaeology, biology, and geography majors as well as other students. (*Prerequisite: Permission of the Instructor*)

ES 301 Solar System Astronomy (3 crs.)

Topics include: the sun, planets, satellites, comets, asteroids, astronomical instruments, time keeping and celestial coordinates, and the early history of astronomy. Use of the BSC observatory and instruments and a trip to a planetarium are required. (*Prerequisite: MA 100 or the equivalent*) *Spring semester*

ES 305 Physical Oceanography (3 crs.)

Ocean water temperature, circulation, salinity, instruments and methods of investigation. (*Prerequisites: MA 151 and 152, or MA 141 and 142, or consent of the instructor*) *Fall semester*

ES 306 Biological Oceanography (3 crs.)

Survey of marine life forms and of the chemistry of sea water. (*Prerequisites: BI 100, BI 102, ES 305, or consent of the instructor*) *Spring semester*

ES 310 Geophysics (3 crs.)

A study of major earth forces, including discussions of the interior of the earth, heat distribution, convection and continental drift. (*Prerequisite: consent of the instructor*) *Offered alternate years, fall semester*

ES 311 Geochemistry (3 crs.)

In this course chemical principles are applied to geologic problems to examine the processes that control the chemical composition of natural waters on and near the surface of the Earth. Topics to be investigated include seawater chemistry, river water chemistry, groundwater chemistry, and the chemistry of hot springs and geysers. The chemical interaction between rock and water will be a central theme of the course as this process is an important control on the chemistry of water in virtually all geologic environments. Important global geochemical cycles will also be explored with an emphasis on how these cycles affect environmental problems such as global warming. (*Prerequisites: ES 100, ES 372 and CH 131 & 132*) *Spring semester*

ES 315 Computer Applications in Earth Science (3 crs.)

After a brief introduction to microcomputers, the major portion of the course is an exposure to a variety of programs of use in the earth sciences dealing with geophysics, hydrology, structural geology, mineralogy, petrology, optical mineralogy, orientation of structural features, analysis of sediments, paleocurrent analysis, geostatistics, use of plotter, mapping, etc. (*Prerequisites: ES 100, ES 101, or consent of the instructor*)

ES 317 Remote Sensing of the Environment (3 crs.)

Analysis and interpretation of digital images from satellite and other platforms. Multispectral and hyperspectral data collection and digital image processing. Remote sensing of the atmosphere, vegetation, soils, water, geology, engineering, land use/cover, and other data that can be imaged from remote platforms. Multidisciplinary satellite images from NASA and other space agencies will be utilized. Two 2-hour lecture/laboratory periods weekly. (*Prerequisite: Written permission of the instructor and introductory courses in earth science, or biology, or geography, or archeology or other approved majors.*) *Fall semester.*

* See page 73 for general information regarding course offerings.

School of Arts & Sciences**ES 372 Mineralogy (4 crs.)**

Geometrical and X-ray crystallography followed by the determinative mineralogy of ore and rock-forming minerals. Two hours of lecture and two 2-hour laboratory periods weekly. (Prerequisites: ES 100 and CH 131) Fall semester

ES 373 Optical Mineralogy (3 crs.)

Principles of optical crystallography. Measurement of optical constants with the polarizing microscope. One hour of lecture and two 2-hour laboratory periods weekly. (Prerequisite: ES 372) Offered alternate years, fall semester

ES 374 Optical Petrology (3 crs.)

Systematic study of rocks and rock-forming minerals with emphasis upon the use of the polarizing microscope, interpretation of mineral assemblages, texture and structures, problems of petrogenesis. One hour of lecture and two 2-hour laboratory periods weekly. (Prerequisite: ES 373) Offered alternate years, spring semester

ES 380 Coastal Processes (3 crs.)

The frequently complex fluid-solid interactions which result in erosion and deposition in coastal environments are developed in this course. Methods of measurement and prediction are presented. (Prerequisites: MA 141 and MA 142, ES 100 or GE 100) Offered alternate years, spring semester

ES 440 Contaminant Hydrogeology (3 crs.)

The fate and transport of groundwater contaminants in various hydrogeologic regimes are presented in this course. Methods for conducting hydrogeologic investigations are discussed in detail. (Prerequisites: ES 100, ES 240, CH 131, MA 141 and MA 142)

ES 463 Petrology (3 crs.)

Megascopic and microscopic classification of rocks and an introduction to petrogenesis. One hour of lecture and two 2-hour laboratory periods weekly. (Prerequisite: ES 372) Spring semester

ES 464 Economic Geology I (3 crs.)

Geochemical and physical processes that produce economic mineral deposits. Two hours of lecture and one two-hour laboratory period weekly. (Prerequisite: ES 100) Offered alternate years, fall semester

ES 475 Paleontology (3 crs.)

A survey of the fossil record stressing the most important invertebrate phyla and their environmental relationships. Two hours of lecture and one two-hour laboratory period weekly. (Prerequisites: ES 100, 101 or consent of the instructor) Fall semester

ES 476 Sedimentology and Stratigraphy (3 crs.)

Introduction to modern concepts and principles in sedimentology, paleoecology, and correlation: lithostratigraphic and biostratigraphic classification and interpretation of depositional and organic environments. Two hours of lecture and one two-hour laboratory period weekly. (Prerequisites: ES 100, 101 or consent of the instructor) Spring semester

ES 490 Field Methods in Geology (3 crs.)

Collection, processing and interpretation of field data developed by geologic mapping. Presentation of geologic reports involving maps, cross-sections and sample data. One hour of lecture and two 2-hour

laboratory periods weekly. (Prerequisites: ES 100, 101 or consent of the instructor) Spring semester

ES 496 Seminar in Geology (1 cr. each semester)

This course focuses on the development of thought concerning current global models and/or continuing controversies in geology. One credit will be earned per semester for a total of 2 credits to be awarded at the end of the second semester. (Prerequisite: Senior standing in geology, earth science or geochemistry)

ES 498 Field Experiences in Earth Science (3-15 crs.)

Intended to provide an opportunity for senior earth science majors to gain practical experience in the field. Placements will be made in appropriate local, state and federal agencies as well as with private corporations. (Prerequisite: consent of the department; formal application required) Either semester

ES 499 Directed Study in Earth Science (1-3 crs.)

Open to juniors and seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits. (Prerequisite: consent of the department; formal application required) Either semester

Other Approved Courses:

ES 201 Topics in Earth Science for Elementary School Teachers

ES 230 Engineering Geology

ES 300 Excursions in Geology

ES 302 Stellar and Galactic Astronomy

ES 375 X-Ray Analysis

ES 462 Geology of North America

ES 465 Economic Geology II

ES 466 Glacial Geology

ES 477 Micropaleontology

ES 497 Research in Earth Science

ES 501 Observational Astronomy (3 crs.)

The class will be taught evenings over one academic year. It will begin in September with four 8-11 PM sessions consisting of classroom work and labs at the college observatory. The students will be introduced to setting up theodolites and telescopes and the operation of the observatory. Classes will then meet monthly from 8-12 PM for the rest of the academic year with the students engaging in a series of extensive observations which would, for example, involve determining the periods of Jupiter's satellites, the eccentricity of the moon's orbit, and determining the lengths of sidereal and synodic months. Students will make photographic records of observations for use in their future classes. (Prerequisites: ES 301 Solar System Astronomy)

ES 502 Research (credit to be arranged)

Original research undertaken by the graduate student in his or her field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

ES 503 Directed Study (credit to be arranged)

Designed for the graduate student who desires to study selected topics in a specific field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

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ES 504 Observational Meteorology (3 crs.)

This course, which will meet five Saturdays—two in the fall, one in the winter, and two in the spring—from 9AM- 5 PM, will be a combination of classroom and field experience. The students will observe and interpret local weather. Emphasis will be on single station forecasting techniques, micro-scale field studies, and analysis and interpretation of regional weather maps. The students will be introduced to and use local sources of real-time weather data, from local airfields, and commercial sources. Field trips will be taken to the National Weather Service Forecast Center at Taunton, MA and the state cranberry research station.

ES 506 Coastal Geology and Oceanography (3 crs.)

This course will be conducted entirely in the field, meeting on two Saturdays in the fall, one Saturday in January, and two Saturdays in the spring from 9AM- 5 PM. Each meeting will involve the student in a series of exercises which will require sampling, measuring, observing and classifying fauna as well as sediments. A number of environments will be studied and will include sandy beaches, rocky beaches, salt marshes, estuaries, and lakes. Students will also study tidal cycles, make salinity and temperature measurements and determine direction of sediment transport. The environments to be studied will include Duxbury Beach, New Bedford Harbor and Cape Cod Bay. The duration of the course, spread over the entire academic year, will enable observation of seasonal changes in environmental parameters. Students will develop slide and video records of the sites for use in their classes as well as sediment and faunal sample collections where appropriate. (Prerequisites: ES 306 Physical Oceanography)

ES 537 Applied Research Project (1 cr.)

In this course, students complete an applied research project which integrates theory and practice utilizing educational research format and disciplinary knowledge.

ES 550 Modern Development in Earth Science (3 crs.)

An introduction to recent developments in the areas of continental drift, environmental geology, regional geology, energy resources and paleontology. Three (3) required Saturday field trips. (Prerequisite: Science teaching experience at the pre-baccalaureate level and consent of the instructor)

ES 590 Field Studies in Geology (3 crs.)

The course will meet for 5 all-day sessions and will be offered in either the spring or fall on Saturdays or as a one-week intensive course in the summer. The teachers will study classic geologic localities in southeastern Massachusetts and Rhode Island. They will map and sample bedrock localities, slide and video presentations will be developed for each locality. Safe access to groups of students will be a primary consideration in the selection of appropriate localities of study. (Prerequisites: ES 463 Petrology and ES 283 Structural Geology)

Physical Geography

GE 100 Physical Geography (3 crs.)

This is an introduction to physical geography phenomena (landforms, climate, oceans, soils) in which human-land relationships are central. The focus is on understanding the processes at work in the environ-

ment and on their inter-relationships. Two hours of lecture and one two-hour laboratory period weekly. Satisfies the GER in physical and biological sciences. *Either semester. Cannot be taken if GE 120 is taken for credit*

GE 120 The Physical World (3 crs.)

This course studies the formation and distribution of landforms, climates, soils and vegetation. Emphasis is placed on the interrelationships among these components of the environment and their significance to life on earth. Satisfies the GER in physical and biological sciences (non-lab course). *Either semester. Cannot be taken if GE 100 is taken for credit*

GE 196 Environmental Geography (3 crs.)

The spatial aspects of the interaction between humans and their physical environment are examined through the analysis of selected problems from resource capacity to pollution. The perceptions of environmental hazards of human settlements are examined to illuminate environmental decision-making. Satisfies the GER in physical and biological sciences (non-lab course). *Either semester*

GE 203 Meteorology (3 crs.)

Study of the basic atmospheric processes that result in weather, regional weather systems. Basic instrumentation and practice in observing, data presentation, and interpretation of weather maps. Two hours of lecture and one two-hour laboratory period weekly. (Prerequisites: GE 100, GE 120 and consent of the instructor) Fall semester

GE 204 Climatology (3 crs.)

Study of the elements and controls of climate emphasizing their effect on man and the environment, and man's response to and modification of climate. The world distribution of climatic regions. Instrumentation and practice in observing, data presentation and analysis. (Prerequisite: GE 100 or GE 120 or consent of the instructor) Spring semester

GE 216 Cartography (3 crs.)

Theory and practice in the design and drafting of maps, graphs and charts for the graphic presentation of geographical and statistical information. One hour of lecture and four one-hour laboratory periods weekly. Additional laboratory time may be required. (Prerequisite: GE 100 or GE 120 or ES 100 or consent of the instructor) Spring semester

GE 307 Management and Preservation of Natural Environment (3 crs.)

This course is devoted to a detailed examination of the occurrence, exploitation and conservation of natural resources, including minerals, soils, water, forest, grassland, fisheries, wildlife, recreation areas and scenery. Emphasis is placed on conservation in the United States. (Prerequisite: Junior standing and consent of the instructor) Offered alternate years, fall semester

GE 317 Air Photo Interpretation — Remote Sensing (3 crs.)

Theory and practice in extracting information about the earth's physical and cultural features from aerial photographs. Acquaint students with the detection, identification, and analysis of the earth's features through remote sensing. The application of computerized digital image processing to satellite environmental data. (Prerequisite: GE 100 or GE 120 or ES 100) Fall semester

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GE 318 Computer Cartography (3 crs.)

This course is concerned with the theory and application of computer processing as related to cartographic design and production. It will emphasize the use of large mainframe computers and peripheral devices (i.e. line printer, pen plotter, digitizer, and graphics terminal) in the production of maps and other graphic output. No knowledge of computer programming is required for the course. (*Prerequisite: GE 216*) Offered alternate years, fall semester

GE 354 Field Methods in Urban Geography (3 crs.)

A geography analysis of local urban areas and their problems, and the application of concepts learned in GS 353. Hours arranged. (*Prerequisite: GS 353*)

GE 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 density 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. (*Prerequisites: ES 100, GE 100 or GE 120*) Offered alternate years, spring semester

GE 417 Satellite Image Processing Applications to the Environment (3 crs.)

The acquisition of information for intensive environmental monitoring is increasingly done through remote sensing, which permits a rapid, efficient manner for analysis and decision making by environmental researchers and resource managers. This course will explore techniques to analyze remotely sensed data using a variety of image analysis systems. Principles of acquisition and interpretation of data collected by imaging sensor such as radar, thermal, and multispectral scanners are discussed. Digital image processing techniques such as rectification and restoration (processing), image enhancement, image classification and data merging covered. The course is taught as a combination of lectures and computer laboratory time with hands-on use of one of the remote sensing software. (*Prerequisite: Any GS or GE course, familiarity with computers recommended*). Offered alternative years, fall semester

GE 419 Geographic Information Systems (3 crs.)

This course explores the use of computers in handling geographic information. Students will learn the conceptual modeling methods and principles necessary for the design and assessment of geographic information systems. Application of several geoprocessing tools to accomplish the horizontal and vertical integration of spatial data are considered. Vector, raster, and relational data structures are examined. No knowledge of computer programming is required for this course. Two hours of lecture and three one-hour laboratory periods weekly. Additional laboratory and field time may be required. (*Prerequisite: At least junior standing (open to all majors), or consent of the instructor*) Spring semester

GE 474 Quantitative Geography (3 crs.)

The use of statistical techniques, and computer and model building methodology to analyze various spatial phenomena. (*Prerequisite: MA 110 or consent of the instructor*)

GE/GS 498 Internship in Geography or Planning (3-6 crs.)

Student internships in local planning department or agency. The purpose of this internship is to provide a student with experience in vari-

ous aspects of his planning interest. (*Prerequisite: consent of the department; formal application required*) Either semester

GE 500 Planning and Urban Environment (3 crs.)

Philosophy and problems of urban and regional planning.

GE 502 Research (credit to be arranged)

Original research undertaken by the graduate student in his or her field. For details, consult the paragraph entitled "Independent Study" in the *Graduate* section of this catalog.

GE 503 Directed Study (credit to be arranged)

Designed for the graduate student who desires to study selected topics in a specific field. For details, consult the paragraph entitled "Independent Study" in the *Graduate* section of this catalog.

GE 520 Improving the Teaching of Earth Sciences, Geography, and Energy I (3 crs.)

This course will update and improve the background of teachers with respect to new developments in geography, earth sciences and energy education. (*Prerequisite: consent of the instructor*)

GE 521 Improving the Teaching of Earth Sciences, Geography, and Energy II (3 crs.)

This course is built around workshops, field trips, and related field guides and texts, all designed to aid teachers in the implementation of curriculum materials. (*Prerequisite: GE 520 or consent of the instructor*)

Geography as a Social Science

GS 110 Human Geography (3 crs.)

An inquiry into the theoretical and empirical approaches to the study of human spatial analysis is presented. The major topics covered include population, race, language, religion, politics, urbanization and economics. Satisfies the GER in social sciences. *Each semester*

GS 160 Geography of Non-Western Cultures (3 crs.)

This course in Human Geography introduces the geographical study of the current cultural and social systems in the non-western world (*in Africa, Asia and Latin America*). Emphasis is placed on the diversity of cultural frameworks and their strategies for dealing with problems. Satisfies the GER in non-western civilization. *Fall semester*

GS 170 Regional Geography: The Developed World (3 crs.)

The study of regional geography of the developed world (*including Anglo-America, Europe and the Soviet Union, Australia and Japan*) investigates how humans have used the resources available to them to obtain a high standard of living in different physical and cultural milieu. This high standard of living is reflected in land use patterns that are similar in their broad outlines but different in detail. Satisfies the GER in social sciences. *Spring semester*

GS 320 Geography Materials and Methods (3 crs.)

This course is focused on the maps, globes, and other geographic learning material that are used in developing and extending geographic

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knowledge and insight. Current techniques and alternative frameworks in the field of geographic education are emphasized. The course details an examination of the strategies, texts, materials, and media that can be used to enhance the teaching and learning of geography within our schools. It closely integrates geographic content and teaching methods so that a truly geographic view of the world can be developed in the classroom. *(Prerequisite: Any GS or GE course) Offered alternate years, spring semester*

GS 353 Urban Geography (3 crs.)

The geographic aspects of the city including location, function, land use patterns, and interaction. Field work focuses on current problems facing urban life. *(Prerequisite: Any GS course or consent of the instructor) Fall semester*

GS 362 Economic Geography (3 crs.)

The geographical analysis of the distribution of economic activities such as production, exchange and consumption is presented in this course. Here we examine the principles underlying spatial variations in land-use and economic development at the local, national and international levels. *(Prerequisite: Any GS or EC course or consent of the instructor) Fall semester*

GS 363 Locational Analysis (3 crs.)

The spatial approach is utilized to analyze retail, industrial, and public utility location. Topics covered include demographic analysis, retail structure, location factors, and economic development. *(Prerequisites: EC 101 or GS 362 or consent of the instructor)*

GS 378 Geography of Anglo-America (3 crs.)

A description and analysis of the relationships between relevant physical and cultural features of regions in the United States and Canada. *(Prerequisite: GE 100 or 120 or consent of the instructor) Fall semester*

GS 380 Geography of Russia/C.I.S. (3 crs.)

The geography of environment, resources and population is studied in relation to history and the present economic and social system of the Russia/C.I.S. *(Prerequisite: Any 100 level GE or GS course) Offered alternate years, fall semester*

GS 384 Geography of Asia (3 crs.)

The physical and cultural patterns of selected countries of Asia. *(Prerequisite: Any 100 level GE or GS course) Offered once in three years*

GS 388 Geography of Africa (3 crs.)

The physical and cultural features of the African continent with special reference to the emerged political and regional patterns. *(Prerequisite: Any 100 level GE or GS course) Spring semester*

GS 420 Principles of Urban and Regional Planning (3 crs.)

An introduction to the process of planning which deals with the interrelationships of resources, facilities, activities, and people over time and space. *(Prerequisite: GS 353 or consent of the instructor) Offered alternate years, spring semester*

GS 430 Geography of Transportation (3 crs.)

This course will provide a spatial understanding of the role of transportation and interaction. It will provide an analysis of the importance

of location relative to economic activities, development of distribution systems, flow analysis, effectiveness of distributional systems and the impact of transport systems on economic development. *(Prerequisite: Any GS course or consent of the instructor)*

GS 473 Political Geography (3 crs.)

The course examines the variation of politically-organized areas and their relationships to each other. The focus is on the interaction of geographical factors (distance, location and distribution) and political process. Emphasis is on both state and non-state agents in the political arrangement of space. *(Prerequisite: Any GS or PO course) Fall semester*

GS 490 Seminar in Geography (3 crs.)

The historical development of methods 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.

GS/GE 498 Internship in Geography or Planning (3-6 crs.)

Student internship in a local planning department or agency. The purpose of this internship is to provide a student with experience in various aspects of his planning interests. *(Prerequisite: consent of the department; formal application required) Either semester*

GS 499 Directed Study in Geography (1-3 crs.)

Open to juniors and seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits. *(Prerequisite: consent of the department; formal application required) Either semester*

Other Approved Courses:

GS 358 Geography of Latin America

GS 382 Geography of Europe

GS 386 Geography of Canada

GS 537 Applied Research Project (1 cr.)

In this course, students complete an applied research project which integrates theory and practice utilizing educational research format and disciplinary knowledge.

GS 550 Contemporary Issues in Geography (3 crs.)

Geographic issues from the classical period through the modern era will be examined with an emphasis on contemporary geographical problems and developments in both the western and the non-western world. The course explores paradigmatic shifts in the field of geography and their significance for present-day geographic thought and research.

GS 555 Field Methods in Geographic Inquiry (3 crs.)

The basis for this course is the contention that the principal training of the geographer should come from doing fieldwork. The skills of observing and recording of data are emphasized in real world settings where students are led to recognize spatial patterns, to develop hypothesis, and to evaluate their findings. The course involves numerous field trips within the local area as cultural and physical topics are examined with an emphasis on the interaction between these realms.

GS 560 Seminar in Geographic Education (3 crs.)

This seminar discusses international perspectives on the essential nature of spatial analysis and its relation to primary, secondary, and ter-

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tiary education. The aims, content, and evaluation of geography programs are examined in order to develop a coherent framework for analyzing the practice of the field in these educational settings. The course also explores the intellectual ingredients essential for a geographer, and especially required of a geographer educator.

GS 565 Geotechnology (3 crs.)

This course provides an understanding and exposure to selected fields of geotechnology including cartography, computer cartography, airphoto interpretation, remote sensing, geodesy, and geographic information systems (GIS). Learn to distinguish the principles behind the chosen fields and develop the ability to integrate them, for example, remote sensing and GIS. Apply and test mapping-related software on different computer platforms using wide variety of software programs with practical applications. (Additional laboratory and field time may be required).

GS 570 Planning and Economic Development (3 crs.)

An examination of the concepts and approaches to urban and regional planning and economic development, with an emphasis on design, land use, urban renewal, and zoning. The course explores the rationales and outcomes of public and private facility location. Local field trips and attendance at public hearings will be required.

GS 575 Environmental Issues: Problems and Solutions (3 crs.)

The course will examine the earth as transformed by human action at the global, regional, and local scales. Detailed study of selected pressing issues will be pursued from historical, contemporary, and predictive viewpoints. Factors influencing possible resolutions of these issues will be closely examined.

GS 580 The Regional Method in Geographic Analysis (3 crs.)

This course examines the nature of regionalism as a heuristic device. The purposes and problems of regionalization are explored in a variety of contexts where human and physical phenomena interact. Regions are analyzed and changing social constructs essential for the spatial analysis so central to geographic inquiry. The course examines changing definitions of regionalism from the French compage to the fluid functional regions of contemporary life.

Department of Economics

Faculty

Chairperson: Professor Anthony Cicerone

Professors: Margaret Landman, Ranjit Vohra

Associate Professor: Stanley Antoniotti

Instructor: Daniel Lomba

Undergraduate Programs

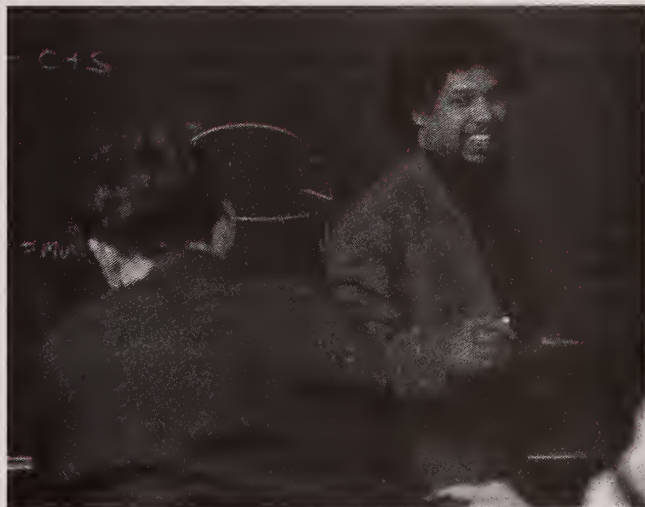
Economics Major

The major in economics is a comprehensive program which enables students to become familiar with many aspects of the economy and provides them with training in economic analysis and problem-solving techniques. A strong background in economic theory will prepare students for entry into fields such as banking, finance, business, politics, and real estate.

Requirements:

- EC 101 Principles of Microeconomics
- EC 102 Principles of Macroeconomics
- EC 201 Intermediate Microeconomic Theory and Policy
- EC 205 Intermediate Macroeconomic Theory and Policy
- EC 210 Quantitative Analysis for Economics

plus five 300 level or higher economics courses for a total of 30 credit hours in economics.



Economics Minor

The minor in economics offers a basic program which enables students to become familiar with some aspects of the economy and provides them with training in economic analysis and problem-solving techniques.

Requirements:

- EC 101 Principles of Microeconomics
- EC 102 Principles of Macroeconomics
- EC 210 Quantitative Analysis for Economics
- EC 201 Intermediate Microeconomic Theory and Policy
- EC 205 Intermediate Macroeconomic Theory and Policy

plus a minimum of two other economics courses at the 300 or 400 level. The two courses, MA 110 Elementary Statistics and MA 318 Quantitative Methods for Management, may be substituted for EC 210.

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Course Offerings*

EC 101 Principles of Microeconomics (3 crs.)

This course focuses on the theory and application of utility and demand, production, cost and market analysis. Satisfies the GER in social sciences. *Either semester*

EC 102 Principles of Macroeconomics (3 crs.)

This course focuses on the theory and application of the following: national income analysis and determination, fiscal policy, monetary theory and policy, and the Federal Reserve system. Satisfies the GER in social sciences. *Either semester*

EC 201 Intermediate Microeconomic Theory and Policy (3 crs.)

The theory of consumer behavior and demand, production and cost, the firm and market organization are discussed with emphasis placed on practical applications. (*Prerequisite: EC 101-102 or consent of the instructor*) *Fall semester*

EC 205 Intermediate Macroeconomic Theory and Policy (3 crs.)

A number of macroeconomic models are developed in this course, including the Keynesian, monetarist, and rational expectations models. Economic theory is used to explore the nature and causes of business fluctuations and the desirability of various government policies. (*Prerequisite: EC 101-102 or consent of the instructor*) *Spring semester*

EC 210 Quantitative Analysis for Economics (3 crs.)

Quantitative analysis discusses the following subjects: data collection and presentation, measures of central tendency and dispersion, probability, sampling, hypothesis testing, regression and correlation analysis. (*Prerequisite: MA 141-142; EC 101-102; or consent of the instructor*)

EC 301 Industrial Organization (3 crs.)

This course provides an analysis of the structure, conduct, and performance of industries. Topics discussed include causes and measurement of market concentration, strategic behavior of firms, and the development of public policies, such as antitrust and regulation, that affect business. (*Prerequisite: EC 101-102 or consent of the instructor*)

EC 302 The Canadian Economy: A Comparative Approach (3 crs.)

This course is an undergraduate introduction to the Canadian economy. It will provide the student with a brief, comparative overview of the size and structure of the Canadian and American economies, a close look at how the Canadian economy evolved from a resource to a modern industrial economy, and a detailed study of the structure and institutions which make up the Canadian economy. (*Prerequisites: EC 101-102 or consent of the instructor.*)

EC 315 Money and Banking (3 crs.)

The roles and functions of money and the banking system are discussed. Various monetary theories and the influence of monetary policy on the state of the economy are examined. (*Prerequisite: EC 101-102 or consent of the instructor*) *Fall semester*

EC 320 Comparative Economic Systems (3 crs.)

The philosophical and structural foundations of capitalism and democratic socialism are studied. Emphasis is placed on a comparison of the American economy to the economies of other countries. *Fall semester*

EC 321 International Economics (3 crs.)

Pure trade theory and its application to solving policy problems are covered in this course. Topics studied include balance of trade, balance of payments and monetary systems. (*Prerequisite: EC 101-102 or consent of the instructor*)

EC 325 The Economy of Crime (3 crs.)

The topics covered by this course include the theoretical and empirical analysis of the economic causes of criminal behavior, the social costs of crime and its prevention, and the design of law enforcement policies. (*Prerequisites: EC 101-102 or consent of the instructor.*)

EC/PO 340 Law and Economics (3 crs.)

This course examines the economic basis for legal decisions. Microeconomic theory is combined with an analysis of the law, with particular emphasis on case studies. Topics covered include the problems of defining property rights and the economics of tort, contract and criminal law. (*Prerequisites: PO 172 or PO 285 and EC 101*)

EC 350 Urban Economic Problems and Policies (3 crs.)

The economic aspects of selected urban problems such as housing, poverty, transportation, crime and the urban environment are analyzed. Public policies relating to these problems are discussed. (*Prerequisites: EC 101 and EC 102, or consent of the instructor*)

EC 375 Labor Economics (3 crs.)

This course analyzes the determination of wages and employment in the labor market. Applications of the theory include unemployment, discrimination, safety in the workplace, and unions. Effects of government policies, such as comparable worth, affirmative action, and health and safety regulations, are examined. (*Prerequisite: EC 101-102 or consent of the instructor*)

EC 400 History of Economic Thought (3 crs.)

An overview of the development of economic theory is presented in an historical context. The ideas of many important contributors to economic thought will be studied including those of Adam Smith, Karl Marx, and John Maynard Keynes. (*Prerequisite: EC 101-102*)

EC 410 Mathematical Economics I (3 crs.)

This course provides training in the use of calculus and other mathematical tools in comparative static analysis and the solving of optimization problems in economics. (*Prerequisite: MA 141-142, MA 120 EC 101-102 or consent of the instructor*)

EC 411 Mathematical Economics II (3 crs.)

This course is a continuation of Mathematical Economics I. Topics will include dynamic analysis using the tools of integral calculus, difference and differential equations, linear programming and game theory (*Prerequisite: EC 410*)

* See page 73 for general information regarding course offerings.

EC 420 Econometrics I (3 crs.)

This course is an introduction to the methods of econometrics, including the two variable linear model, the generalized least squares estimator and autocorrelation. (*Prerequisite: MA 141-142, MA 120 or EC 410 and EC 411; EC 101- 102 or consent of the instructor*)

EC 421 Econometrics II (3 crs.)

This course is a continuation of Econometrics I. Topics discussed include stochastic regressors, instrumental variables, errors in variables, lagged variables and simultaneous equation methods. (*Prerequisite: EC 420*)

EC 430 Managerial Economics (3 crs.)

This course emphasizes the practical applications of micro and macroeconomic skills to real-life problems. Quantitative tools and case studies will be used to understand topics including demand, cost, and output and pricing decisions in various market structures. (*Prerequisite: EC 205 and EC 210 or consent of the instructor*)

EC 498 Internship in Economics (3-15 crs.)

A non-classroom experience designed for a limited number of junior and senior majors to complement their academic preparation. (*Prerequisite: consent of department chairperson; formal application required*) Either semester

EC 499 Directed Study in Economics (1-3 crs.)

Juniors and seniors who have demonstrated critical and analytical abilities in their studies may pursue an independent project under a faculty member's supervision. This course may be taken twice for a maximum of six credits. (*Prerequisite: consent of the department; formal application required*) Either semester

EC 502 Research (credit to be arranged)

This course consists of original research undertaken by the graduate student in his field of interest under the sponsorship of a faculty adviser. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

EC 503 Directed Study (credit to be arranged)

This course is designed for the graduate student who desires to study selected topics in a specific field of interest under the direction of a faculty adviser. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

EC 510 Graduate Seminar in Domestic Economic Problems (3 crs.)

Individual research and group discussion are combined in this seminar on the problems of the American economy. (*Prerequisite: consent of the instructor*)

EC 520 Graduate Seminar in International Economic Problems (3 crs.)

Individual research and group discussion are combined in this seminar on the problems of international economic relations. (*Prerequisite: consent of the instructor*)

EC 531 Economics for Elementary Teachers (3 crs.)

This course focuses on the development of microeconomic and macroeconomic programs for elementary school students. Various materials and sources are introduced. (*Prerequisite: A bachelor's degree and some background in elementary education*)

EC 532 Economics for Secondary Teachers (3 crs.)

This course focuses on the development of microeconomic and macroeconomic programs for secondary school students. Various materials and sources are introduced. (*Prerequisite: A bachelor's degree and some background in education*)

Department of English

Faculty

Chairperson: Professor Iain Crawford

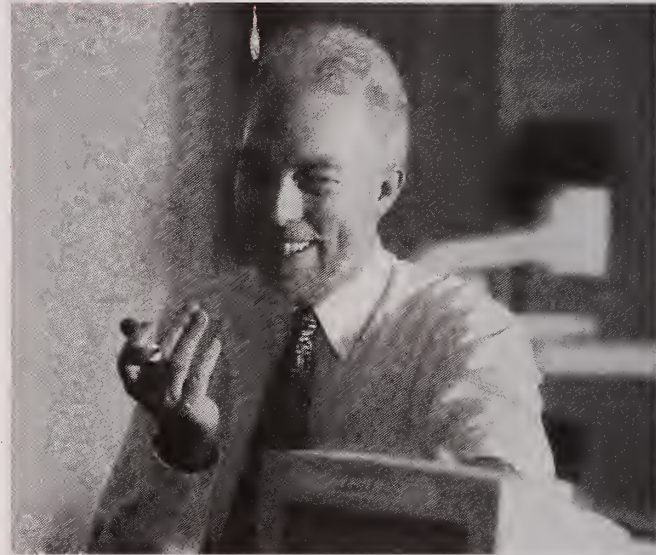
Professors: Marcia Anderson, Charles Angell, Leslie Angell, Barbara Apstein, Thomas Curley, Harold Delisle, Arnold Girdharry, Charles Nickerson, Evelyn Pezzulich, Lois Poule, Jadwiga Smith, Judith Stanton, Delija Valiukenas, Clifford Wood

Associate

Professors: Michael Boyd, Maureen Connelly, Michael Hurley, William Smith

Assistant

Professors: Ann Brunjes, Anne Doyle, D'Ann Pletcher George, Philip Tabakow



Undergraduate Programs

Bachelor of Arts

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. With a foundation in English and American literature and a grasp of literary principles and techniques of critical analysis, English majors have sufficient preparation to enter diverse careers or the preparation to pursue graduate study. Bridgewater State College English majors have achieved success in a wide variety of occupations including teaching, banking, law, medicine, publishing, government service, public relations, technical writing, creative writing, advertising, and business administration.

The department also offers an honors program for students who wish to pursue independent study culminating in a thesis.

The Department of English participates in multidisciplinary minors such as American Studies, Canadian Studies, and Women's Studies. For specific information on these programs, consult the catalog section *Interdisciplinary and Pre-Professional Programs*.

English Major

Majors must achieve a grade of C or above in EN 101 Writing I and EN 102 Writing II. Credit earned for EN 101 and EN 102 may not be applied to the major.

The Department of English will permit its majors to use only one passing grade below C- to satisfy requirements in the English major. An additional grade below C- will require that majors take another English course.

The major must earn 36 credits in English which must include three semester hours in each of the following:

EN 203 Writing About Literature
(must be taken early in the major)

EN 211 Literary Classics of Western Civilization to 1600
or

EN 221 Major British Writers to 1800
English literature before 1800 (EN 221 is one of many courses which satisfies this requirement);
English literature after 1800 (any course);
American literature (any course);
a seminar (generally taken during the senior year).

No more than six hours of 200 level literature courses can be credited toward the major. The six hour limit in literature does not apply to 200 level writing courses.

Writing Concentration

The writing concentration is designed to offer a student supervised writing throughout the college career. Students may select courses which emphasize applied writing (technical and business writing), expressive or referential writing, or the teaching of writing. All students electing the writing concentration will be required to take EN 390 Theories of Writing.

Students will choose 12-15 credits from among the following (EN 390 must be included):

- EN 200 Personal and Public Writing
- EN 201 Technical Writing I
- EN 202 Business Communication
- EN 203 Writing About Literature
- EN 230 Creative Writing
- EN 280 Journalism
- EN 301 Writing and the Teaching of Writing
- EN 302 Technical Writing II
- EN 389 Topics in Writing
- EN 390 Theories of Writing

Double Major with Elementary Education, Early Childhood Education or Special Education

Students may choose a double major in English and Elementary Education, Early Childhood Education or Special Education for certification purposes. Appropriate advising materials with suggested course sequences are available.

English Minor

Traditionally considered the province of liberal arts majors, the English minor also offers a suitable option for students majoring in such specialized technical and professional fields as computer science, social sciences, behavioral sciences, and management science. Eighteen credits in English are required with at least nine credits in courses above the 300 level.

Minor in Secondary (High School) or Middle School Education

Students may minor either in Secondary (High School, grades 9-12) or Middle School (grades 5-9) Education. Successful completion of either of these programs will lead to Massachusetts Provisional with Advanced Standing Teacher Certification. Please refer to the Department of Secondary Education and Professional Programs for specific teacher certification and program requirements.

Graduate Programs

Program Coordinator: Dr. William Smith

Master of Arts

The Department of English offers a program leading to the degree of Master of Arts in English. An undergraduate major in English, with at least twenty-four hours of above average work in the discipline, is normally required for admission to this program. Students with deficient academic backgrounds are sometimes accepted into the program with the stipulation that these deficiencies be made up before work actually credited to the degree begins.

Upon acceptance into the program, the student will be assigned an adviser and given a copy of the brochure entitled "Graduate Study in English." All accepted students must enroll under the direction of their adviser in GP 501 Graduate Program Planning, which is described under "Graduate Advisers and Program Planning" in the *Graduate School* section of this catalog. Students must complete a minimum of 30 credits, all at the 500-level. Program requirements include:

1. EN 500 Introduction to Graduate Study in English (This required course should be taken during the student's first year of graduate study.)
2. The remaining seven (7) courses must be distributed as follows:
 - a. The student must take at least one course from five (5) of the following six (6) groups:
 - Group I: Medieval
 - Group II: Renaissance and Seventeenth Century
 - Group III: Restoration and Eighteenth Century
 - Group IV: Nineteenth Century
 - Group V: Twentieth Century
 - Group VI: Critical and Genre Studies
 - b. The student should also take two elective courses which may be drawn from these six groups.
3. A foreign language proficiency examination
4. A three-hour written comprehensive examination
5. After completing twenty-four (24) course credits in English, the student will then write a thesis, earning six (6) credits. (The student must enroll in EN 502 Research for the thesis credits.)

*School of Arts & Sciences***Master of Arts in Teaching
Clinical Master's Program****English****Certification Program (Standard Level)**

This master's degree program is designed for persons who have provisional certification with advanced standing and are seeking standard certification in the area of English (9-12, 5-9). (Students needing provisional certification with advanced standing should refer in this catalog to the program entitled "Post Baccalaureate Program: Provisional Certification with Advanced Standing for Secondary (Subject Areas: 9-12) and Middle Level (Subject Areas: 5-9) Teachers" under the *Department of Secondary Education and Professional Programs*.)

For information regarding application procedures and admission standards, students should consult the *Graduate School* section of this catalog.

Students seeking standard certification should consult the section of this catalog entitled *School of Education and Allied Studies* for information pertaining to professional certification, admission to and retention in Professional Education, as well as important institutional deadlines.

GP 501 Graduate Program Planning

All accepted students must enroll under the direction of their adviser in GP 501 Graduate Program Planning, which is described under "Graduate Adviser and Program Planning" in the *Graduate School* section of this catalog. As part of their program, students must satisfactorily complete the following curriculum:

Education Core

- ED 530 Research Methods
- ED 531 The Curriculum Experience
- ED 532 Critical Issues - Educators and Society
- ED 533 Effective Practices in Human Development & Learning
- ED 534 Clinical Experience (6 crs.)
- ED 537 Applied Research Project (2 crs.)

(Course descriptions for ED 530-537 are provided in the *School of Education and Allied Studies* section of this catalog.)

Discipline Area Requirements

M.A.T. students are expected to have, or acquire in addition to degree requirements, an appropriate background of college level courses, to be determined by the department.

Required Courses:

1. EN 500 Introduction to Graduate Studies in English
(Required for all MAT students - 3 crs.)
2. Five additional courses in English will be chosen from the following 500-level courses:
 - EN 515 Studies in Medieval Drama
 - EN 520 Studies in Shakespeare and the Renaissance
 - EN 527 Studies in 17th Century English Literature
 - EN 531 Studies in 18th Century British Literature
 - EN 535 Studies in British Romanticism
 - EN 541 Studies in the Novel
 - EN 542 Studies in Victorian Literature
 - EN 551 American Transcendentalism
 - EN 552 Contemporary American Fiction
 - EN 562 Studies in Modern Drama
 - EN 565 Modern Critical Theory
 - EN 570 Graduate Seminar in American Literature
 - EN 580 Graduate Seminar in English Literature
 - EN 590 Graduate Seminar in World Literature

Advisers will work closely with each MAT student to ensure that courses are selected from a range of literary periods and genres.

3. EN 537 Applied Research Project (1 cr.)

Each student will be required to pass a comprehensive examination prior to being eligible to receive the Master of Arts in Teaching degree.

Students who successfully complete the above curriculum are eligible for standard certification.

**Master of Arts in Teaching
English****Program for Teachers with Standard Certification**

This program is designed for secondary and middle level subject area teachers who have standard certification.

All accepted students must enroll under the direction of their adviser in GP 501 Graduate Program Planning, which is described under "Graduate Adviser and Program Planning" in the *Graduate School* section of this catalog. As part of their program, students must satisfactorily complete the following curriculum:

- GP 501 Graduate Program Planning
- ED 530 Research Methods
- ED 531 The Curriculum Experience
- ED 532 Critical Issues - Educators and Society
- ED 533 Effective Practices in Human Development & Learning

(Course descriptions for ED 530 - 533 are provided in the *School of Education and Allied Studies* section of this catalog.)

Discipline Electives

M.A.T. students are expected to have, or acquire in addition to degree requirements, an appropriate background of college level courses, to be determined by the department.

A minimum of 21 approved graduate credits in English at the 500 level, which meet the academic and professional objectives of the student, is required. These courses must include EN 500 Introduction to Graduate Studies in English which is required for this degree.

Successful completion of a comprehensive examination is also required.

School of Arts & Sciences

Course Descriptions*

Successful completion of EN 101, EN 102 (or their equivalent) is a prerequisite to all other English courses.

EN 101 Writing I (3 crs.)

By intensive practice in composing short expository essays, the writer explores various techniques for discovering, developing and organizing ideas. Special attention will be given to mastering essential skills appropriate to academic writing. Satisfies the GER in Writing.

EN 102 Writing II (3 crs.)

Continuing to develop essential skills, the writer learns and practices various techniques of argumentation. Special attention will be given to learning basic research skills and to integrating the ideas of others into one's own text. Emphasis is on longer and more substantive essays and a research paper. Satisfies the GER in Writing.

EN 135-136 Freshman Honors Colloquium (1 cr. each semester)

Freshman Honors Colloquia in English allow exceptionally able students to explore a challenging topic in small classes under close faculty supervision. Colloquia meet once a week for fifty minutes and culminate in a paper or scientific project which provides the major part of the grade. Open to All-College Honors students and to others at the discretion of the instructor. The minimum enrollment is two and the maximum is twelve. Topics vary from semester to semester. (*Prerequisite: consent of the instructor*) EN 135 fall semester, EN 136 spring semester

EN 170 Middle Eastern Islamic Literature (3 crs.)

This course studies the literature of Middle Eastern Islam in its cultural setting from the writing of the Qur'an Prose, poetry and drama by such authors as Omar Khayyam, Rumi, Hafiz, Khalifah and Sa'di are analyzed to illuminate contemporary Islamic culture. Comparison is made with Jewish and Christian literatures.

EN 200 Personal and Public Writing (3 crs.)

The course offers the opportunity to write in a variety of personal and public forms. The pre-writing, composing, and revising stages of the writing process are emphasized through frequent practice and instructor and peer criticism.

EN 201 Technical Writing I (3 crs.)

Emphasis on writing with practical applications, such as summaries, abstracts, outlines, proposals, interviews, progress reports, and a guided research paper. Subject matter is often drawn from the students' own disciplines.

EN 202 Business Communication (3 crs.)

The course develops competence in recognition and production of business summaries and abstracts, memoranda and letters, and reports. Concerns of style, tone, arrangement, format, and information levels are treated in the context of various explicit and implicit management structures.

EN 203 Writing About Literature (3 crs.)

This course will help students develop the skills needed for writing papers in upper-level literature courses. By reading, discussing, and writing about works in various genres, students will learn what sorts of questions are likely to generate insight into a work of literature, how to develop and support such insights in a paper, how to distinguish a valid from an invalid interpretation, and how to use the specialized terminology associated with each of the major genres.

EN 211 Literary Classics of Western Civilization to 1600 (3 crs.)

Major works of Western literature from ancient times through the Renaissance are studied. The course encompasses diverse literary forms and themes through such works as the Bible, Homeric epic, Greek drama, *The Divine Comedy*, and a Shakespearean play. Satisfies the GER in Literature.

EN 212 Literary Classics of Western Civilization Since 1600 (3 crs.)

Major works of Western literature from the Renaissance to modern times will be studied. The course will encompass diverse literary forms and themes through such works as *Don Quixote*, *Candide*, *Madame Bovary* and a play by Ibsen. Satisfies the GER in Literature.

EN 214 The Classical Tradition (3 crs.)

Major Greek and Roman writers in modern English translation are studied. Included will be such figures as Homer, Sophocles, Plato, Euripides, Cicero, and Virgil. Satisfies the GER in Literature.

EN 221 Major British Writers to 1800 (3 crs.)

Representative works by major British writers from the Anglo-Saxon period through the eighteenth century are studied, including such figures as Chaucer, Shakespeare, Milton, Donne, Pope and Swift. Satisfies the GER in Literature.

EN 222 Major British Writers Since 1800 (3 crs.)

Representative works by major British writers of the nineteenth and twentieth centuries are studied, including such figures as Wordsworth, Keats, Tennyson, Dickens, Shaw, Yeats, Eliot, Woolf and Joyce. Satisfies the GER in Literature.

EN 230 Creative Writing (3 crs.)

Problems of invention, composition, form and style solved through frequent practice and criticism of professional and student models and anecdotal evidence of professional writers. May be offered in short fiction, poetry, or drama and repeated once for credit. (*Prerequisite: consent of instructor*)

EN 231 Major American Writers to 1865 (3 crs.)

Representative works by major American writers from the seventeenth century through the Civil War are studied. Included are such figures as Franklin, Poe, Emerson, Hawthorne, Melville and Whitman. Satisfies the GER in Literature.

EN 232 Major American Writers Since 1865 (3 crs.)

Major American writers from the Civil War to the present are studied, including such figures as Twain, Dickinson, James, Frost, Hemingway and Faulkner. Satisfies the GER in Literature.

* See page 73 for general information regarding course offerings.

EN 241 Shakespeare (3 crs.)

This general introduction to Shakespeare's plays is set against the background of his time, and includes a detailed study of representative tragedies, comedies, and histories. Satisfies the GER in Literature.

EN 251 Literary Themes (3 crs.)

Major literary texts are examined from the perspective of a common theme. In a given semester the course might concern itself with love, the family, madness, law, nature (as examples of particular themes) to illustrate how writers from diverse cultures and/or historical periods working with different genres shape imaginative responses to enduring themes. Satisfies the GER in Literature.

EN 252 Literary Types (3 crs.)

Major literary texts are examined from the perspective of one genre or type and focus in a given semester on the novel, drama, poetry, short story, and biography. Works from diverse cultures and/or historical periods will be used to illustrate how conventions of type or genre shape a writer's discourse. Satisfies the GER in Literature.

EN 261 Film Study: Introduction to the Art (3 crs.)

Major American and foreign films and directors from the silent era to the present are evaluated to develop critical awareness and esthetic appreciation of film as an art form. In addition, film viewing, readings in film theory, interpretation, and criticism are required. Does not satisfy literature GER.

EN 262 Film Study: Literature and Film (3 crs.)

Adaptations of literature into film will be evaluated to develop an understanding of the narrative demands of both genres. Viewing and reading works in both media will be required. Does not satisfy literature GER.

EN 280 Journalism (3 crs.)

Copy, editing and proofreading skills will be developed with special emphasis devoted to objective news story writing. Some attention is paid to reviewing and sports writing. Does not satisfy literature GER.

EN 286-287 Sophomore Honors Colloquium (1 cr. each semester)

Sophomore Honors Colloquia in English allow exceptionally able students to explore a challenging topic in small classes under close faculty supervision. Colloquia meet once a week for fifty minutes and culminate in a paper or scientific project which provides the major part of the grade. Open to All-College Honors students and to others at the discretion of the instructor. The minimum enrollment is two and the maximum is twelve. Topics vary from semester to semester. (*Prerequisite: consent of the instructor*) EN 286, fall semester, EN 287 spring semester

EN 301 Writing and the Teaching of Writing (3 crs.)

Designed for prospective teachers, the course undertakes an investigation of current research in creativity and the writing process with application made to the student's own writing, school curriculum, and good teaching practice.

EN 302 Technical Writing II (3 crs.)

Writing in-depth reports requires sophisticated data gathering and analysis. Specific attention is paid to audience analysis and formatting. (*Prerequisite: EN 201*)

EN 305 History of the English Language (3 crs.)

Origins and development of English. Selected readings in Old and Middle English.

EN 309 Early American Literature (3 crs.)

Readings in journals, histories, seminars, autobiographies, and the beginnings of American fiction. Emphasis on the Puritans, Woolman, Franklin, Irving, and Cooper.

EN 310 The African American Novel (3 crs.)

This chronological study of the African-American novel from 1853 to the present devotes particular attention to social, political, economic, and cultural factors. Readings may include William Wells Brown, Jean Toomer, Zora Neale Hurston, Richard Wright, James Baldwin, Ralph Ellison, Toni Morrison, and Alice Walker.

EN 312 Modern British Fiction (3 crs.)

This course focuses on earlier twentieth-century British novelists such as Conrad, Forster, Lawrence, Joyce, and Woolf.

EN 320 Chaucer (3 crs.)

This course provides an introduction to Chaucer's poetry and Middle English through readings in *The Canterbury Tales*.

EN 321 The Age of Pope (3 crs.)

The course surveys the literature of the early 18th century with emphasis on the works of Pope, Swift, Gay, Addison and Steele.

EN 322 The Age of Johnson (3 crs.)

The course examines the writings of several major 18th century figures, such as Johnson, Boswell, Fielding, Richardson, Goldsmith and Brontë.

EN 323 Introduction to Linguistics (3 crs.)

The course focuses on the generative-transformational theory of syntactic structure as applied to the English language. It includes selected readings on various aspects of linguistics.

EN 327 Women Writers: The Female Tradition to 1900 (3 crs.)

This course traces the history and development of a female literary tradition among English-speaking women writers. The dominant stages, images, and themes and genres within this tradition will be explored through the work of writers such as Bradstreet, Killigrew, Wheatley, Wollstonecraft, Dickinson, Eliot, Browning, Rossetti, Gilman, and Chopin.

EN 328 Women Writers: The Female Tradition Since 1900 (3 crs.)

English-speaking women writers in the female literary tradition developed a number of dominant themes in a range of literary genres. The accomplishment of twentieth century women authors will be shown through such writers as Lowell, Woolf, Wharton, Porter, Hellman, Brooks, Lessing, Plath, Oates, Atwood, and Morrison.

EN 329 Modern American Fiction (3 crs.)

This course examines modern American fiction, focusing on such writers as Fitzgerald, Hemingway, Faulkner, Cather, Anderson and Lewis.

*School of Arts & Sciences***EN 330 Recent American Fiction (3 crs.)**

This course includes short fiction and the novel since 1945, and focuses on writers such as Bellow, Didion, Mailer, McCarthy, Oates, Roth, Tyler, Updike and Walker.

EN 331 U.S. Literature in the Nineteenth Century I (3 crs.)

This course analyzes selected readings in such writers as Cooper, Hawthorne, Poe, Emerson, Thoreau, Whitman, and Dickinson.

EN 332 U.S. Literature in the Nineteenth Century II (3 crs.)

This course focuses on the novels and tales of Melville, Twain, Hawthorne, and James.

EN 333 Realism and Naturalism in American Literature (3 crs.)

This course focuses on the fiction of Chopin, Crane, Dreiser, Howells, Norris, Wharton, and the twentieth-century extensions of realism in the fiction of Dos Passos, Stein, and Farrell.

EN 334 Literature of Maine (3 crs.)

Concentrates on prose and poetry about the culture and coastline of Maine since its discovery and explores the literary experience of America described by Captain John Smith, Thoreau, Longfellow, Sarah Orns Jewett, Edward Alington Robinson, and Robert Lowell. Comparison to the art of Andrew Wyeth (as well as other Maine artists) will be made, in addition to visits to locales depicted by Wyeth paintings (e.g., Olson Estate).

EN 335 Elizabethan and Jacobean Drama (3 crs.)

Reading and discussion of a number of plays by such contemporaries of Shakespeare as Johnson, Marlowe, and Webster with attention to contemporary social developments as well as to the historical development of the English play.

EN 338-339 Honors Tutorial (3 crs. each semester)

This tutorial involves special topics in English. It is open to All-College and Departmental Honors students and meets for three hourly meetings weekly. (*Prerequisite: consent of the department*)

EN 340 Literature of the English Renaissance (3 crs.)

This course examines the non-dramatic literature of the Age of Shakespeare including the works of Sidney, Spenser, Nashe, Marlowe, and Drayton. Textual analysis is emphasized but the historical, social, and cultural background of this period is also considered.

EN 341 Literature of the Continental Renaissance (3 crs.)

This course surveys representative works of Petrarch, Boccaccio, Machiavelli, Erasmus, Castiglione, Rabelais, Cellini, Montaigne, Cervantes, and Ronsard representing prevailing literary themes and techniques.

EN 342 Shakespeare: Histories and Comedies (3 crs.)

This course provides examples of Shakespeare's art in dominant Renaissance dramatic forms and with some of his recurring thematic concerns. In addition, study of the Histories and Comedies demonstrates Shakespeare's growth in the dramatic use of language. Plays for study will include *The Comedy of Errors*, *Two Gentlemen of Verona*, *Much Ado About Nothing*, *As You Like It*, *Twelfth Night*, *Richard III*, *Richard II*, *Henry IV, Parts I and II*, and *Henry V*.

EN 343 Shakespeare: Tragedies and Late Plays (3 crs.)

This course offers studies in the various dimensions of the tragic vision of man. In addition, study of the late plays provides the student with examples of dramatic works that proceed beyond the tragic dimension. Selected plays will include *Hamlet*, *King Lear*, *Othello*, *Macbeth*, *Antony and Cleopatra*, *Measure for Measure*, *The Winter's Tale*, and *The Tempest*.

EN 346 Southern Literature (3 crs.)

This course focuses on the personal, cultural, and social dimensions of Southern life in works by William Faulkner, Tennessee Williams, Katherine Anne Porter, Flannery O'Connor, Eudora Welty, William Styron, and Peter Taylor.

EN 350 Recent British Fiction (3 crs.)

This course focuses on British fiction since 1945. Writers to be studied may include Golding, Graves, Lessing, Murdoch, Greene, Ballard, and Powell.

EN 353 Modern European Drama (3 crs.)

Students will study the main forces in Modern European drama starting with Ibsen.

EN 356 Modern American Drama (3 crs.)

Students will read and discuss selected plays of dramatists from O'Neill to Albee.

EN 360-361 The English Novel I-II (3 crs. for each semester)

The course traces the development of the English novel, including such writers as Defoe, Richardson, Fielding, Smollett, Sterne, Austen, and Scott in the first semester, and Dickens, the Brontës, Thackeray, Eliot, Trollope, Conrad, and Hardy in the second semester.

EN 365 Victorian Prose and Poetry (3 crs.)

The major emphasis is 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, Ruskin, Arnold, Newman, Huxley, and others are studied in conjunction with the poetry.

EN 366 Tennyson, Browning, and Arnold (3 crs.)

These major nineteenth-century authors are studied in some detail, with particular reference to the historical, social, and cultural milieu within which they wrote.

EN 367 English Literature of the Late Victorian and Edwardian Periods (3 crs.)

The major writers of the late nineteenth and early twentieth centuries are examined from aesthetic, social, and intellectual vantage points, with readings in such prose writers as Gissing, James, Wilde, Beerbohm, Carroll, Wells, Hardy, Corvo, Forster, and Conrad, and such poets as Rossetti, Swinburne, Morris, Hopkins, and Yeats.

EN 370 Seventeenth Century Literature (3 crs.)

The 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.

EN 380 Milton (3 crs.)

The course includes the main works of Milton: *Paradise Lost*, *Paradise Regained*, and *Samson Agonistes*, the minor poetic works, and selected prose.

EN 381 Irish Literature I (3 crs.)

The course is a survey of earlier Irish literature in translation from the Gaelic and in English. It includes selections from the epic poem, *Tain Bo Cuailnge*, Gaelic lyric poetry (600-1800 A.D.); the pioneering fiction of Maria Edgeworth and William Carleton; and the poetry of the nineteenth-century balladeers, Thomas Moore, Thomas Davis, James Clarence Managan, and Sir Samuel Ferguson. The accomplishments of the Irish literary revival of 1890-1920; fiction by Daniel Corkery, George Moore, Seamus O'Kelly, and James Joyce; poetry and plays by William Butler Yeats; and plays by John M. Synge.

EN 382 Irish Literature II (3 crs.)

This course is a survey of later modern and contemporary Irish literature including the later fiction of James Joyce and the later poetry of William Butler Yeats; the plays of Sean O'Casey, Brendan Behan, Samuel Beckett, and Brian Friel; the poetry of Austin Clarke, Patrick Kavanagh, Thomas Kinsella, John Montague, Richard Murphy, and Seamus Heaney; the fiction of Liam O'Flaherty, Sean O'Faolain, Frank O'Connor, Flann O'Brien, Mary Lavin, William Trevor, Edna O'Brien, and others.

EN 386 English Romantic Poets (3 crs.)

The course examines selected poetry and prose of Wordsworth, Coleridge, Shelley and Keats with the principal objective of understanding the character and modes of expression of each poet's imaginative vision. Consideration is given to historical background and to developments in philosophy and aesthetic theory which have a direct bearing on Romantic poetry.

EN 389 Topics in Writing (3 crs.)

The course explores writing on different subjects from semester to semester according to interest and demand. Typical topics may include: writing the research paper, the narrative essay, the personal journal, writing literary criticism, etc.

EN 390 Theories of Writing (3 crs.)

The course examines fundamental rhetorical, linguistic, social, and discourse theories as they pertain to the writing process. Frequent writing will be assigned. The course is required of all students in the writing concentration.

EN 391 Modern Literary Criticism (3 crs.)

This course examines the major critics and critical movements of the 20th century, particularly in the United States and England, but with some attention to continental critical thought. Critics and theorists such as T.S. Eliot, I.A. Richards, John Crowe Ransom, Edmund Wilson, Lionel Trilling, Northrop Frye, Raymond Williams, and Roland Barthes are studied. The principles and methods of several kinds of criticism, formalist, Marxist, psychoanalytical, structuralist, and post-structuralist, are examined.

EN 392 Advanced Creative Writing: Poetry (3 crs.)

This course offers an intensive workshop approach to poetry writing for students who wish to submit poems for peer review and develop a poetry portfolio. (*Prerequisite: EN 230 or consent of instructor*)

EN 393 Modern British Poetry (3 crs.)

The major British poets of the twentieth century are studied with particular emphasis on the works of Hopkins, Hardy, Yeats, Eliot, Auden and Thomas.

EN 394 Modern American Poetry (3 crs.)

The major American poets of the twentieth century are studied with particular emphasis on the works of Robinson, Frost, Crane, Auden, Williams, and Stevens.

EN 395 Studies in Recent American Poetry (3 crs.)

American poets practicing from 1945 to the present are surveyed. Among these poets may be Robert Lowell, John Berryman, Theodore Roethke, Richard Wilbur, Adrienne Rich, Anne Sexton, Sylvia Plath, James Wright, Richard Hugo, Randall Jarrell, Gwendolyn Brooks, Robert Hayden, and Gary Snyder. Others may be included from time to time.

EN 485 Honors Thesis (3 crs.)

This course is open to All-College and Departmental Honors students. One-hour weekly meetings with the thesis director will culminate in an honors thesis. With the consent of the departmental honors committee and the thesis director, this course may be extended into a second semester for three additional credits depending upon the scope of the project.

EN 490 Literary Studies in Oxford (3 crs.)

Close readings of several major works emphasizing the dynamic relationship between literary texts and the cultural and intellectual environments in which they were created. Authors and periods studied will vary. (This is a special program in England at Oxford University during July. Additional fees are required.) (*Prerequisite: students will normally be expected to be in their junior or senior year*)

EN 494 Seminar (3 crs.)

The seminar treats selected topics in language and literature.

EN 495 Seminar in English Literature (3 crs.)

This seminar, primarily for seniors, honors candidates, and graduate students, will pursue in depth certain themes and authors in English literature.

EN 496 Seminar in American Literature (3 crs.)

This seminar, primarily for seniors, honors candidates, and graduate students, will pursue in depth certain themes and authors in American literature.

EN 497 Seminar in World Literature (3 crs.)

This seminar, primarily for seniors, honors candidates, and graduate students, will pursue in depth certain themes and authors in world literature.

EN 498 Internship in English (3-15 crs.)

The internship provides off-campus work-study experience in areas related to the expanding discipline of English, such as editing, journalism, media, public relations, and technical writing. Internship credits are not applicable to the 36 credits required for the major. (*Prerequisite: consent of the department; formal application required*)

School of Arts & Sciences

EN 499 Directed Study in English (1-3 crs.)

Directed study is open to juniors and seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits. (*Prerequisite: consent of the department; formal application required*)

Other Approved Courses:

EN 283-284 Major Canadian Writers in English I-II

EN 314 Medieval English Literature

EN 397 Film Study: The Director's Art

EN 398 Film Study: Genres

EN 500 Introduction to Graduate Study in English (3 crs.)

This course will examine the backgrounds and techniques of literary scholarship. Some acquaintance with critical approaches to literature, as well as comprehensive experience in the major genres and periods of English and American literature, will be assumed. Required of MA and M.A.T. candidates in English.

EN 502 Research (credit to be arranged)

Original research undertaken by the graduate student in his field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

EN 503 Directed Study (credit to be arranged)

Directed study is designed for the graduate student who desires to study selected topics in a specific field. For details consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

EN 510 Theory and Discipline of English for Teachers (3 crs.)

This course will review major critical stances and their influences on curriculum, examine the canon taught in schools, and analyze and evaluate the prevailing pedagogic models and definitions of literacy.

EN 515 Studies in Medieval Drama (3 crs.)

This course will investigate representative mystery, miracle, and morality plays written in England and Europe during the medieval period.

EN 520 Studies in Shakespeare and the Renaissance (3 crs.)

Students will analyze selected plays by Shakespeare with special emphasis in each play on the received tradition and on the relationship among the significant aspects of the language, the characters, and the structures. In addition, attention will be given to the use of source material and to the philosophical, social, and scientific currents of the age. Finally, students will be examining traditional and contemporary critical views of the plays.

EN 527 Studies in Seventeenth Century English Literature (3 crs.)

Students will examine selected writings in prose and poetry from Donne to Dryden for the purpose of understanding the poetic themes and styles as well as the social, philosophical, and scientific currents of the period. Among the writers to be considered are Donne, Jonson, Herrick, Herbert, Crashaw, Lovelace, Suckling, Marvell, Dryden; and Bacon, Bruton, Browne, Hobbes, Locke, and the character writers. Attention will be given to the women of the age, such as Jane Cavendish, Bradstreet, Margaret Cavendish, Philips, Behn, Killigrew, Barker, and Pix. Special attention will be given to tracing the shifting emphasis in

style and technique concomitant to emerging social, political, religious, and philosophical concerns.

EN 531 Studies in Eighteenth Century British Literature (3 crs.)

This course is an intensive exploration of the poetry, prose fiction, drama, and intellectual prose by major and minor authors from Dryden, Pope, Swift, Defoe, and Fielding to Johnson, Boswell, Burke, Austen and Blake.

EN 535 Studies in British Romanticism (3 crs.)

This course is an in-depth study of the poetry and prose of the Romantic Period, including writers such as Wordsworth, Coleridge, Byron, Blake, Shelley, Keats, Charlotte Smith, Mary Shelley, and Dorothy Wordsworth.

EN 537 Applied Research Project (1 cr.)

In this course, students complete an applied research project which integrates theory and practice utilizing educational research format and disciplinary knowledge.

EN 541 Studies in the Novel (3 crs.)

Several novelists chosen from a single period will be read closely. Emphasis will be placed on the development of each novelist within a specific literary and historical context. The period under consideration will vary from year to year.

EN 542 Studies in Victorian Literature (3 crs.)

Riven by intellectual and social conflict and marked by the emergence of new classes of readers and writers, the Victorian Period produced a literature of unique and enduring value. This course will examine major works of the period in a variety of genres—paying particular attention to the impact of science, religion, history, philosophy, ethnicity, gender definition, and the arts on literary achievement.

EN 551 American Transcendentalism (3 crs.)

Development and influence of American Transcendentalism in the literature of Emerson, Thoreau, and Alcott will be investigated.

EN 552 Contemporary American Fiction (3 crs.)

Intensive examination of two or more major figures, 1945 to the present. Defining postmodern fiction. Emphasis on innovative narrative structures and textures in the work of Nabokov, Hawkes, Barth, Barthelme, Pynchon, Morrison and others.

EN 562 Studies in Modern Drama (3 crs.)

Readings and discussion of significant works from among such key writers as Shaw, Jarry, Strindberg, Chekhov, Appollinaire, Pirandello, Cocteau, Lady Gregory, Yeats, Schitzler, Synge, O'Neil, O'Casey, Odets, Lorca, Sartre, Anouilh, Eliott, Brecht, Miller, Williams, Beckett, Ionesco, Pinter, Stoppard, Mamet, Carol Churchill, and Guare, as well as such earlier writers as George Buchner (1813-1837) whose work remained unknown until the Twentieth Century. Also studied may be such contributors to theatre aesthetic as Gordan Craig, Kenneth MacGowan and Robert Edmund Jones, Sheldon Cheney, Julian Beck, and Judith Malina, and Robert Wilson.

EN 565 Modern Critical Theory (3 crs.)

This course will focus on the major American and European schools of criticism that have influenced literary studies in the past forty years.

Attention will be given to formalist, structuralist, phenomenological, post-structural, reader-response, Marxist, psycho-analytical, hermeneutic, feminist, and new historical schools of criticism.

EN 570 Graduate Seminar in American Literature (3 crs.)

A particular author, group of authors, or theme in American literature will be studied in depth. Topics will change from year to year.

EN 580 Graduate Seminar in English Literature (3 crs.)

A particular author, group of authors, or theme in English literature will be studied in depth. Topics will change from year to year.

EN 590 Graduate Seminar in World Literature (3 crs.)

A particular author, group of authors, or theme in world literature will be studied in depth. Topics will change from year to year.

Department of Foreign Languages

Faculty

Chairperson: Assistant Professor Lydia Bernstein

Professors: Stanley Hamilton, Barbara Ward

**Associate
Professor:** Margaret Snook

**Assistant
Professors:** Leora Lev
Atandra Mukhopadhyay

Instructor: Tirso Cleves



Undergraduate Programs

Bachelor of Arts

The Foreign Language Department offers students an opportunity to gain practical working knowledge of one or more of ten foreign languages. Students may choose any of these ten languages offered by the department unless otherwise advised by the requirements of their academic major. Students who are continuing the study of foreign languages at Bridgewater State College should do so at the earliest opportunity.

The department currently offers an undergraduate major and minor in Spanish.

To maintain good standing, only grades of C- or better are allowed in each major course and FL 324 and ED 424. Thirty to thirty-six semester hours are required for a Spanish major.

For all prerequisites, equivalent course credit or preparation will be considered.

The Department of Foreign Languages participates in the multidisciplinary minor in Canadian Studies. For specific information on these programs, consult the catalog section *Multidisciplinary and Pre-Professional Programs*.

Spanish Major

- LS 252 Reading in Spanish
- LS 271 Patterns of the Spanish Language
- LS 272 Spanish Composition
- LS 281 Spanish Conversation and Phonetics
- LS 371 Advanced Spanish Conversation
- LS 391 Spanish Civilization
- LS 392 Spanish-American Civilization
- LS 400 Survey of Spanish Literature
- LS 401 Topics in Spanish Literature
- LS 402 Survey of Spanish-American Literature
- LS 403 Topics in Spanish-American Literature
- LS 490 Seminar in Hispanic Literature

A maximum of 3 credits in FL 498 Internship in Foreign Languages may be substituted for one course above with departmental approval.

SACHEM consortium courses and study abroad are available for transfer purposes.

The Spanish major sequence is not available in the evening hours.

Double Major With Elementary Education, Early Childhood Education or Special Education

Students may choose a double major in Spanish and Elementary Education, Early Childhood Education or Special Education for certification purposes. Appropriate advising materials with suggested course sequences are available.

Language Minor

Language minors are required to take 18 semester hours in the foreign language, which may include the 101-102 level. The choice of subsequent courses may be determined in consultation with the department head.

Minor in Secondary Education

Students minoring in education must refer to the Department of Secondary Education and Professional Programs for specific requirements. Students intending to qualify for Spanish certification should consult the chairperson of the Department of Foreign Language as early as possible.

Education Core for 5-12 Certification Program

- MS 200 Introduction to Middle School
- HS 230 Educational Psychology
- HS 240 Classroom Management in the High School
- HS 370 Evaluating Teaching and Learning in the High School
- MS 400 Middle School Preparation II
- MS 495 Middle School Practicum
- HS 424 Strategies for Teaching Foreign Language in the High School
- HS 490 Student Teaching Practicum-High School

GER Foreign Language Requirement

All students must successfully complete one semester of a foreign language at the 102 level of the course. All students who continue the study of a foreign language previously studied must take the Placement Examination. Students who are continuing the study of foreign languages at Bridgewater State College should do so at the earliest opportunity. Students who have passing grades in four levels of the same secondary foreign language are exempt from the General Education Requirement in Foreign Language. With the exception of Advanced Placement foreign language courses, credit may not be granted to students exempt from one or two semesters of the General Education Requirement in Foreign Language because of study of four

secondary levels of the same foreign language or because of a placement test score.

Citizens of the United States or residents who speak a language other than English at home should consult the chairperson regarding the GER in Foreign Languages.

Overseas Study Opportunities

The Department of Foreign Languages urges its majors and minors to study abroad and can offer information on available study plans. The International Programs and Exchange Office, Student Affairs, can assist students. Any student contemplating study abroad should consult the department with all pertinent documentation. Final acceptance of credit will be determined upon receipt of official transcripts and supporting material and, in some cases, may not be equivalent to the credits earned in a regular semester or year at Bridgewater.

Graduate Programs

Master of Arts in Teaching

The program is inactive.

Students interested in obtaining Massachusetts provisional certification with advanced standing should refer in this catalog to the program entitled "Post Baccalaureate Program: Provisional Certification with Advanced Standing for Secondary (Subject Areas: 9-12) and Middle Level (Subject Areas: 5-9) Teachers" under the *Department of Secondary Education and Professional Programs*.

Persons already holding a B.A. who are completing secondary certification requirements must complete a diagnostic oral interview to determine their proficiency in the foreign language to be taught; further course work may be required.

School of Arts & Sciences

Course Offerings*

Arabic

LA 101 Elementary Arabic I (3 crs.)

An introduction to elementary syntactic, semantic, phonetic and paralinguistic structures is offered. Pertinent everyday cultural concepts are discussed. Relevant comparison and contrast with the native language is treated. Functional communication in the second language in a controlled environment is the principal objective of the course. (*Prerequisite: Placement Examination, for students continuing previous language study*) Satisfies the GER in Foreign Language (first-semester level).

LA 102 Elementary Arabic II (3 crs.)

The further study of elementary syntactic, semantic, phonetic and paralinguistic structure is offered. Pertinent everyday cultural concepts are discussed. Relevant comparison and contrast with the native language is treated. Functional communication in the second language in a controlled environment is the principal objective of the course. (*Prerequisite: LA 101; or Placement Examination, for students continuing previous language study*) Satisfies the GER in Foreign Language (second-semester level).

Other Approved Courses:

- LA 151 Intermediate Arabic
- LA 172 Business Arabic
- LA 211 Arabic Literature in Translation

Chinese

LC 101 Elementary Chinese I (3 crs.)

An introduction to elementary syntactic, semantic, phonetic and paralinguistic structures is offered. Pertinent everyday cultural concepts are discussed. Relevant comparison and contrast with the native language is treated. Functional communication in the second language in a controlled environment is the principal objective of the course. (*Prerequisite: Placement Examination, for students continuing previous language study*) Satisfies the GER in Foreign Language (first-semester level).

LC 102 Elementary Chinese II (3 crs.)

The further study of elementary syntactic, semantic, phonetic and paralinguistic structures is offered. Pertinent everyday cultural concepts are discussed. Relevant comparison and contrast with the native language is treated. Functional communication in the second language in a controlled environment is the principal objective of the course. (*Prerequisite: LC 101; or Placement Examination, for students continuing previous language study*) Satisfies the GER in Foreign Language (second-semester level).

English as a Second Language

LE 101 English as a Second Language I (3 crs.)

An introduction to elementary syntactic, semantic, phonetic and paralinguistic structures is offered. Pertinent everyday cultural concepts are discussed. Relevant comparison and contrast with the native language is treated. Functional communication in the second language in a controlled environment is the principal objective of the course. (*Prerequisite: Placement Examination, for students continuing previous language study*) Satisfies the GER in Foreign Language (first-semester level).

LE 102 English as a Second Language II (3 crs.)

The further study of elementary syntactic, semantic, phonetic and paralinguistic structures is offered. Pertinent everyday cultural concepts are discussed. Relevant comparison and contrast with the native language is treated. Functional communication in the second language in a controlled environment is the principal objective of the course. (*Prerequisite: LE 101; or Placement Examination, for students continuing previous language study*) Satisfies the GER in Foreign Language (second-semester level).

French

LF 101 Elementary French I (3 crs.)

An introduction to elementary syntactic, semantic, phonetic and paralinguistic structures is offered. Pertinent everyday cultural concepts are discussed. Relevant comparison and contrast with the native language is treated. Functional communication in the second language in a controlled environment is the principal objective of the course. (*Prerequisite: Placement Examination, for students continuing previous language study*) Satisfies the GER in Foreign Language (first-semester level).

LF 102 Elementary French II (3 crs.)

The further study of elementary syntactic, semantic, phonetic and paralinguistic structures is offered. Pertinent everyday cultural concepts are discussed. Relevant comparison and contrast with the native language is treated. Functional communication in the second language in a controlled environment is the principal objective of the course. (*Prerequisite: LF 101; or Placement Examination, for students continuing previous language study*) Satisfies the GER in Foreign Language (second-semester level).

Other Approved Courses:

- LF 251 Intermediate French
- LF 252 Reading in French
- LF 271 Patterns of the French Language
- LF 272 Advanced French Composition

German

LG 101 Elementary German I (3 crs.)

An introduction to elementary syntactic, semantic, phonetic and paralinguistic structures is offered. Pertinent everyday cultural concepts are discussed. Relevant comparison and contrast with native language is treated. Functional communication in the second language in

* See page 73 for general information regarding course offerings.

Foreign Languages

a controlled environment is the principal objective of the course. (*Prerequisite: Placement Examination, for students continuing previous language study*) Satisfies the GER in Foreign Language (first-semester level).

LG 102 Elementary German II (3 crs.)

The further study of elementary syntactic, semantic, phonetic and paralinguistic structures is offered. Pertinent everyday cultural concepts are discussed. Relevant comparison and contrast with the native language is treated. Functional communication in the second language in a controlled environment is the principal objective of the course. (*Prerequisite: LG 101; or Placement Examination, for students continuing previous language study*) Satisfies the GER in Foreign Language (second-semester level).

Other Approved Courses:

LG 151 Intermediate German I
 LG 181-182 Advanced German I-II
 LG 191-192 Scientific German I-II
 LG 201-202 Survey of German Literature I-II
 LG 252 Reading in German
 LG 262 German Life and Literature under Hitler in English
 LG 272 Aspects of German Culture and Civilization in English
 LG 282 German Conversation and Civilization
 LG 301 Modern German Literature
 LG 310 The Modern German Novel in English Translation
 LG 320 Contemporary German Drama in English Translation
 LG 330 Major German Writers in English Translation
 LG 340 The German Novella in English Translation
 LG 351 German Romanticism
 LG 460 Seminar in German Literature

Italian**LT 101 Elementary Italian I (3 crs.)**

An introduction to elementary syntactic, semantic, phonetic and paralinguistic structures is offered. Pertinent everyday cultural concepts are discussed. Relevant comparison and contrast with the native language is treated. Functional communication in the second language in a controlled environment is the principal objective of the course. (*Prerequisite: Placement Examination, for students continuing previous language study*) Satisfies the GER in Foreign Language (first-semester level).

LT 102 Elementary Italian II (3 crs.)

The further study of elementary syntactic, semantic, phonetic and paralinguistic structures is offered. Pertinent everyday cultural concepts are discussed. Relevant comparison and contrast with the native language is treated. Functional communication in the second language in a controlled environment is the principal objective of the course. (*Prerequisite: LT 101; or Placement Examination, for students continuing previous language study*) Satisfies the GER in Foreign Language (second-semester level).

Other Approved Courses:

LT 151 Intermediate Italian I
 LT 181-182 Advanced Italian I-II
 LT 252 Reading in Italian

Japanese**LJ 101 Elementary Japanese I (3 crs.)**

An introduction to elementary syntactic, semantic, phonetic and paralinguistic structures is offered. Pertinent everyday cultural concepts are discussed. Relevant comparison and contrast with the native language is treated. Functional communication in the second language in a controlled environment is the principal objective of the course. (*Prerequisite: Placement Examination, for students continuing previous language study*) Satisfies the GER in Foreign Language (first-semester level).

LJ 102 Elementary Japanese II (3 crs.)

The further study of elementary syntactic, semantic, phonetic and paralinguistic structure is offered. Pertinent everyday cultural concepts are discussed. Relevant comparison and contrast with the native language is treated. Functional communication in the second language in a controlled environment is the principal objective of the course. (*Prerequisite: LJ 101; or Placement Examination, for students continuing previous language study*) Satisfies the GER in Foreign Language (second-semester level).

Other Approved Courses:

LJ 151 Intermediate Japanese
 LJ 172 Business Japanese

Portuguese**LP 101 Elementary Portuguese I (3 crs.)**

An introduction to elementary syntactic, semantic, phonetic and paralinguistic structures is offered. Pertinent everyday cultural concepts are discussed. Relevant comparison and contrast with the native language is treated. Functional communication in the second language in a controlled environment is the principal objective of the course. (*Prerequisite: Placement Examination, for students continuing previous language study*) Satisfies the GER in Foreign Language (first-semester level).

LP 102 Elementary Portuguese II (3 crs.)

The further study of elementary syntactic, semantic, phonetic and paralinguistic structures is offered. Pertinent everyday cultural concepts are discussed. Relevant comparison and contrast with the native language is treated. Functional communication in the second language in a controlled environment is the principal objective of the course. (*Prerequisite: LP 101; or Placement Examination, for students continuing previous language study*) Satisfies the GER in Foreign Language (second-semester level).

Other Approved Courses:

LP 151 Intermediate Portuguese I
 LP 252 Reading in Portuguese

Russian**LR 101 Elementary Russian I (3 crs.)**

An introduction to elementary syntactic, semantic, phonetic and paralinguistic structures is offered. Pertinent everyday cultural con-

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cepts are discussed. Relevant comparison and contrast with the native language is treated. Functional communication in the second language in a controlled environment is the principal objective of the course. (*Prerequisite: Placement Examination, for students continuing previous language study*) Satisfies the GER in Foreign Language (first-semester level).

LR 102 Elementary Russian II (3 crs.)

The further study of elementary syntactic, semantic, phonetic and paralinguistic structures is offered. Pertinent everyday cultural concepts are discussed. Relevant comparison and contrast with the native language is treated. Functional communication in the second language in a controlled environment is the principal objective of the course. (*Prerequisite: LR 101; or Placement Examination, for students continuing previous language study*) Satisfies the GER in Foreign Language (second-semester level).

Other Approved Courses:

LR 151-152 Intermediate Russian I-II

LR 181-182 Advanced Russian I-II

LR 252 Reading in Russian

Spanish

LS 101 Elementary Spanish I (3 crs.)

An introduction to elementary syntactic, semantic, phonetic and paralinguistic structures is offered. Pertinent everyday cultural concepts are discussed. Relevant comparison and contrast with the native language is treated. Functional communication in the second language in a controlled environment is the principal objective of the course. (*Prerequisite: Placement Examination, for students continuing previous language study*) Satisfies the GER in Foreign Language (first-semester level).

LS 102 Elementary Spanish II (3 crs.)

The further study of elementary syntactic, semantic, phonetic and paralinguistic structures is offered. Pertinent everyday cultural concepts are discussed. Relevant comparison and contrast with the native language is treated. Functional communication in the second language in a controlled environment is the principal objective of the course. (*Prerequisite: LS 101; or Placement Examination for students continuing previous language study*) Satisfies the GER in Foreign Language (second-semester level).

LS 151 Intermediate Spanish (3 crs.)

A review of Spanish grammar with emphasis given to reading, writing, listening and speaking; systematic laboratory practice; an introduction to aspects of Hispanic culture. Conducted in Spanish. (*Prerequisite: LS 102*)

LS 252 Reading in Spanish (3 crs.)

The student is introduced to the reading, analysis, and discussion of semi-edited modern literary and cultural texts from Spain, Latin America, and the Caribbean. The emphasis is on the development of reading comprehension skills and vocabulary. Conducted in Spanish. (*Prerequisite: LS 151 or consent of the instructor*)

LS 271 Patterns of the Spanish Language (3 crs.)

Consideration given to writing patterns and to oral patterns with emphasis on lexicon and phonetics; systematic laboratory practice. Conducted in Spanish. (*Prerequisite: LS 252 or consent of the instructor*)

LS 272 Spanish Composition (3 crs.)

The student develops writing skills utilizing sources from the Spanish-speaking world. Different writing skills and styles are introduced and practiced. Systematic review is conducted with emphasis on more advanced language patterns. Conducted in Spanish. (*Prerequisite: LS 271 or consent of the instructor*)

LS 281 Spanish Conversation and Phonetics (3 crs.)

Fluent expression in formal and informal speech is stressed. Oral proficiency is improved by the systematic study of the sound system and lexicon. Conducted in Spanish. (*Prerequisite: LS 271 or consent of the instructor*)

LS 371 Advanced Spanish Conversation (3 crs.)

Emphasis is placed in the development of advanced oral discourse skills. Fluency in Spanish is enhanced through interactive roleplays and improvised situations using contemporary idioms. Regional and dialectical speech patterns are introduced. Systematic audio and video tape practice. Conducted in Spanish. (*Prerequisite: LS 281*)

LS 391 Spanish Civilization (3 crs.)

Readings and discussion of topics related to Spanish civilization through the centuries are treated. Conducted in Spanish. (*Prerequisite: LS 281 or consent of the instructor*)

LS 392 Spanish-American Civilization (3 crs.)

Readings and discussions of topics related to South American and Caribbean civilizations from pre-Columbian to modern times are treated. Conducted in Spanish. (*Prerequisite: LS 281 or consent of the instructor*)

LS 400 Survey of Spanish Literature (3 crs.)

The course introduces the student to the principal literary movements from the Middle Ages to the present. Representative authors such as Ruiz, Cervantes, Lope de Vega, Moratin, Espronceda, Perez Galdos, Unamuno, Baroja, Garcia Lorca, and Cela are treated. Conducted in Spanish. (*Prerequisite: LS 391 or consent of the instructor*) (formerly LS 311)

LS 401 Topics in Spanish Literature (3 crs.)

Topics will focus on a particular genre, such as the short story or the theatre, with intensive study of selected works from modern writers. Conducted in Spanish. (*Prerequisite: LS 400 or LS 402, consent of the instructor*) (formerly LS 312)

LS 402 Survey of Spanish-American Literature (3 crs.)

Principal literary movements from the colonial times to the present will be introduced. Discussion will include representative works of El Inca Garcilaso de la Vega, Sor Juana Ines de la Cruz, Dario, Rulfo, Garcia Marquez, and Fuentes. Conducted in Spanish. (*Prerequisite: LS 392 or consent of the instructor*) (formerly LS 421)

LS 403 Topics in Spanish-American Literature (3 crs.)

Topics will focus on a particular genre, such as the short story or the theatre, with intensive study of selected works from modern writers. Conducted in Spanish. (*Prerequisite: LS 400, LS 402 or consent of the instructor*) (formerly LS 422)

LS 490 Seminar in Hispanic Literature (3 crs.)

Topics will be drawn from theme, genre, author, and period. This course may be repeated for credit. Conducted in Spanish. (*Prerequisite: LS 312 or LS 422 or consent of the instructor*)

Other Approved Courses:

- LS 110 Conversational Spanish for Medical Personnel
- LS 210 Latin American Poetry in English Translation
- LS 220 The Contemporary Latin American Novel in English Translation
- LS 230 Contemporary Latin American Short Story in English Translation
- LS 301 The Golden Age of Spanish Literature
- LS 310 Contemporary Latin American Short Story
- LS 320 Latin American Poetry
- LS 351 Cervantes
- LS 381 The Middle Ages
- LS 401 Nineteenth Century Spanish Literature
- LS 410 Latin American Novel: Early 20th Century
- LS 420 The Contemporary Latin American Novel
- LS 451 Twentieth Century Spanish Literature
- LS 495 Seminar in Spanish American Literature
- LS 507 Advanced Composition and Stylistics for Graduate Students
- LS 511-512 Masterpieces of Spanish-American Literature I-II
- LS 520 Topics in Spanish-American Civilization
- LS 521 Topics in Spanish Civilization
- LS 525 Masterpieces of Spanish Literature I
- LS 526 Masterpieces of Spanish Literature II

FL 324 Applied Linguistics in the Teaching of Foreign Languages (3 crs.)

The course will treat first, second and foreign language learning in home and educational settings. Emphasis is placed on differences between linguistic and pedagogical grammars, strong versus weak contractive hypotheses, and on the notion of transitional competence. Research techniques are analyzed. (*Prerequisite: A minimum of 18 credits in the foreign language in which certification is sought.*)

FL 498 Internship in Foreign Languages (3-15 crs.)

An off-campus experience to expand the cultural and occupational potential of the student using a foreign language in a working environment. A maximum of 3 credits may be substituted for one course in major with departmental approval. (*Prerequisite: 24 credits in Spanish major*)

FL 499 Directed Study in Foreign Language (1-3 crs.)

Open to juniors and seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits. (*Prerequisite: consent of the department*)

Other Approved Courses:

- FL 135-136 Freshman Honors Colloquium
- FL 286-287 Sophomore Honors Colloquium
- FL 300 Languages of the World
- FL 310 Comparative Medieval Romance Literatures in English Translation
- FL 311 Dante and Medieval Culture in Translation
- FL 330 Teaching English as a Second Language
- FL 338-339 Honors Tutorial
- FL 485 Honors Thesis
- FL 502 Research
- FL 503 Directed Study

Department of History

Faculty

Chairperson: Professor Jean Stonehouse

Professors: David Culver, Peter Karavites,
Philip Silvia, Jr., Thomas Turner,
Alfred Wolff

**Associate
Professor:** Lucille Fortunato DeLisle

**Assistant
Professors:** Andrew Harris, Leonid Heretz,
Andrew Holman, Wing-kai To,
Linda Wimmer



Undergraduate Programs

Bachelor of Arts

The department offers students a solid, liberal arts major as preparation for professional careers, for graduate study in other fields (law and librarianship, for example) and for careers as museum professionals and public historians. It prepares students to teach history and the social studies at the middle and high school level, and it provides a relevant and valuable liberal arts major to students preparing for careers in elementary, early childhood, and special education. It also contributes to the general education program by offering history courses to all students.

The department recommends that its majors select a minor or interdisciplinary program that will complement the major program. History majors electing Secondary Education are strongly urged to take elective courses in geography, political science, economics and the behavioral sciences in order to meet present employment expectations.

History

Required courses:

- One course from among:
 - HI 111 Western Civilization to 1715
 - HI 121 The Ancient World
 - HI 131 World History to 1500
- One course from among:
 - HI 112 Western Civilization since 1715
 - HI 132 World History since 1500
- HI 221 U.S. History and Constitutions to 1865
- HI 222 U.S. History and Constitutions since 1865
- One course taken from each of the following areas:

Area III	Ancient, Medieval, Early Modern Europe
Area IV	Modern Europe
Area V	U.S. History to 1877
Area VI	U.S. History since 1877
Area VII	The Traditional World
Area VIII	Modern World
- Two upper division (300 and 400 level) electives, which must be taken in different geographical areas (World, Europe, U.S.A.) Students may meet this requirement with courses in Public History and/or Museum Management.
Note: Students seeking elementary education, middle school or high school certification with a History major should select an additional course in Area III as one of their electives so that they have taken one course from

the Ancient/Medieval offerings and one from Early Modern Europe for a total of 6 credit hours in Area III toward completion of the major.

- Either HI 495 Undergraduate History Colloquium
or
HI 496 Undergraduate History Seminar
Students may use these courses to meet area requirements

Only six hours of 100 level and six hours of 200 level courses may be applied toward a history major or minor.

No more than three hours from the following courses may be used toward the 36 hours required for a history major: HI 392, 498, 499.

History Major/Middle School or High School Education

History (Teacher of History Grades 5-9)

Please consult the Secondary Education and Professional Programs section of this catalog for courses required for the middle school minor

Required courses:

Methods course requirement of all candidates seeking certification as a teacher of history, grades 5-9

- MS 450 Strategies of Teaching History in the Middle School
- one course from among:
 - HI 111 Western Civilization to 1715
 - HI 121 The Ancient World
 - HI 131 World History to 1500
 and one course from among:
 - HI 112 Western Civilization since 1715
 - HI 132 World History since 1500
- HI 221 U.S. History and Constitutions to 1865
- HI 222 U.S. History and Constitutions since 1865
- One course taken from each of the following areas:

Area III	Ancient, Medieval, Early Modern Europe
Area IV	Modern Europe
Area V	U.S. History to 1877
Area VI	U.S. History since 1877
Area VII	The Traditional World
Area VIII	Modern World

Two additional upper division (300 and 400 level) history electives, which must be taken in different geographical areas (World, Europe, U.S.A.)

Note: Students seeking middle school or high school certification with a History major should select an

additional course in Area III as one of their electives so that they have taken one course each from the Ancient/Medieval offerings and one from Early Modern Europe for a total of 6 credit hours in Area III toward completion of the major.

- Either HI 495 Undergraduate History Colloquium
or
HI 496 Undergraduate History Seminar
Students may use these courses to meet area requirements

Only six hours of 100 level and six hours of 200 level courses may be applied toward a history major or minor.

No more than three hours from the following courses may be used toward the 36 hours required for a history major: HI 392, 498, 499 (except for the Community History Concentration).

History (Teacher of History Grades 9-12)

Please consult the Secondary Education and Professional Programs section of this catalog for courses required for the secondary education minor.

Required courses:

Methods course requirement of all candidates seeking certification as a teacher of history, grades 9-12

- HS 412 Strategies of Teaching History in the High School
- one course from among:
 - HI 111 Western Civilization to 1715
 - HI 121 The Ancient World
 - HI 131 World History to 1500
 and one course from among:
 - HI 112 Western Civilization since 1715
 - HI 132 World History since 1500
- HI 221 U.S. History and Constitutions to 1865
- HI 222 U.S. History and Constitutions since 1865
- One course taken from each of the following areas:

Area III	Ancient, Medieval, Early Modern Europe
Area IV	Modern Europe
Area V	U.S. History to 1877
Area VI	U.S. History since 1877
Area VII	The Traditional World
Area VIII	Modern World

- Two additional upper division (300 and 400 level) history electives, which must be taken in different geographical areas (World, Europe, U.S.A.)

Note: Students seeking middle school or high school certification with a History major should select an additional course in Area III as one of their electives so

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that they have taken one course from the Ancient/
Medieval offerings and one from Early Modern Europe
for a total of 6 credit hours in Area III toward completion
of the major.

- Either HI 495 Undergraduate History Colloquium
or
HI 496 Undergraduate History Seminar
Students may use these courses to meet area requirements

Only six hours of 100 level and six hours of 200 level courses
may be applied toward a history major or minor.

No more than three hours from the following may be used
toward the 36 hours for a history major: HI 392, 498, 499.

History (Teacher of Social Studies Grades 5-9)

Please consult the Secondary Education and Professional
Programs section of this catalog for courses required for the
middle school minor

Required courses:

Methods course requirement of all candidates seeking
certification as a teacher of social studies, grades 5-9
MS 450 Strategies of Teaching Social Studies in the Middle
School

- one course from among:
HI 111 Western Civilization to 1715
HI 121 The Ancient World
HI 131 World History to 1500
and one course from among:
HI 112 Western Civilization since 1715
HI 132 World History since 1500
- HI 221 U.S. History and Constitutions to 1865
- HI 222 U.S. History and Constitutions since 1865
- One course taken from each of the following areas:
Area III Ancient, Medieval, Early Modern Europe
Area IV Modern Europe
Area V U.S. History to 1877
Area VI U.S. History since 1877
Area VII The Traditional World
Area VIII Modern World
- Two additional upper division (300 and 400 level) history
electives, which must be taken in different geographical
areas (World, Europe, U.S.A.)
Note: Students seeking middle school or high school
certification with a History major should select an
additional course in Area III as one of their electives so
that they have taken one course from the Ancient/

Medieval offerings and one from Early Modern Europe
for a total of 6 credit hours in Area III toward completion
of the major.

- Either HI 495 Undergraduate History Colloquium
or
HI 496 Undergraduate History Seminar
Students may use these courses to meet area requirements

Cognate Courses:**Political Science - six hours**

PO 172 Introduction to American Government

or

PO 277 American Government: State & Local Government

PO 260 International Relations

Economics - three hours

EC 101 Principles of Microeconomics

or

EC 102 Principles of Macroeconomics

Geography - twelve hours

GS 110 Human Geography

GS 320 Geography: Materials and Methods

One upper level regional geography course

One course from the following:

GE 196 Environmental Geography

GS 353 Urban Geography

GS 362 Economic Geography

GS 473 Political Geography

Sociology/Anthropology - three hours

SO 102 Introduction to Sociology

or

AN 100 Introduction to Cultural Anthropology

Psychology - three hours

PY 100 Introductory Psychology

15 of these hours (6 in history, 3 in political science/econom-
ics or geography, 6 in sociology/anthropology or psychol-
ogy) are double-counted as part of the General Education
Requirements (GERs). 36 credits (24 in history, 12 in social
sciences) are in addition to the GERs.

Only six hours of 100 level and six hours of 200 level courses
may be applied toward a history major or minor.

No more than three hours from the following may be used
toward the 36 hours required for a history major: HI 392,
498, 499.

History (Teacher of Social Studies Grades 9-12)

Please consult the Secondary Education and Professional Programs section of this catalog for courses required for the secondary education minor.

Required courses:

- one course from among:
 - HI 111 Western Civilization to 1715
 - HI 121 The Ancient World
 - HI 131 World History to 1500
 and one course from among:
 - HI 112 Western Civilization since 1715
 - HI 132 World History since 1500
- HI 221 U.S. History and Constitutions to 1865
- HI 222 U.S. History and Constitutions since 1865
- One course from each of the following areas:

Area III	Ancient, Medieval, Early Modern Europe
Area IV	Modern Europe
Area V	U.S. History to 1877
Area VI	U.S. History since 1877
Area VII	The Traditional World
Area VIII	Modern World
- Two additional upper division (300 and 400 level) history electives, which must be taken in different geographical areas (World, Europe, U.S.A.)

Note: Students seeking middle school or high school certification with a History major should select an additional course in Area III as one of their electives so that they have taken one course from the Ancient/Medieval offerings and one from Early Modern Europe for a total of 6 credit hours in Area III toward completion of the major.
- Either HI 495 Undergraduate History Colloquium
or
HI 496 Undergraduate History Seminar
Students may use these courses to meet area requirements

Political Science - six hours:

- PO 172 Introduction to American Government
or
PO 277 American Government: State & Local Government
and
PO 260 International Relations

Economics - three hours:

- EC 101 Principle of Microeconomics
or
EC 102 Principle of Macroeconomics

Geography - twelve hours:

- GS 110 Human Geography
GS 320 Geography: Material and Methods
One upper level regional geography course
One course selected from the following:
GE 196 Environmental Geography/GS 353 Urban Geography
GS 362 Economic Geography/GS 473 Political Geography

Sociology/Anthropology - three hours:

- SO 102 Introduction to Sociology
or
AN 100 Introduction to Cultural Anthropology

Psychology - three hours

- PY 100 Introductory Psychology

Please note: Fifteen of these hours (6 in history, 3 in political science-economics-or geography, 6 in sociology/anthropology, and psychology) may also meet General Education requirements.

Military History Concentration

All history majors with a military concentration must meet all the requirements of the history major. Specific course content areas are noted below.

Required courses:

- one course from among:
 - HI 111 Western Civilization to 1715
 - HI 121 The Ancient World
 - HI 131 World History to 1500
 and one course from among:
 - HI 112 Western Civilization since 1715
 - HI 132 World History since 1500
- HI 221 U.S. History and Constitutions to 1865
- HI 222 U.S. History and Constitutions since 1865
- One course taken from each of the following areas (one course of each grouping must be in military history)

Area III and IV	Ancient, Medieval, Early Modern Europe; Modern Europe
Area V and VI	U.S. History to 1877; U.S. History since 1877
Area VII and VIII	The Traditional World; Modern World
- Two upper division (300 and 400 level) military history electives, which must be taken in different geographical areas (World, Europe, U.S.A.)

School of Arts & Sciences

Note: Students seeking middle school or high school certification with a History major should select an additional course in Area III as one of their electives so that they have taken one course from the Ancient/Medieval offerings and one from Early Modern Europe for a total of 6 credit hours in Area III toward completion of the major.

- Either HI 495 Undergraduate History Colloquium
or
HI 496 Undergraduate History Seminar
Students may use these courses to meet area requirements

No more than three hours from the following may be used toward the 36 hours required for a History major: HI 392, 498, 499.

Double Major With Elementary Education, Early Childhood Education or Special Education

Students may choose a double major in History and Elementary Education, Early Childhood Education or Special Education for certification purposes. Appropriate advising materials with suggested sequences are available.

Minor in Secondary (High School) or Middle School Education

Students may minor either in Secondary (High School, grades 9-12) or Middle School (grades 5-9) Education. Successful completion of either of these programs will lead to Massachusetts Provisional with Advanced Standing Teacher Certification. Please refer to the Department of Secondary Education and Professional Programs for specific teacher certification and program requirements.

History Minor

Required courses:

HI 111 Western Civilization to 1715

or

HI 121 The Ancient World

HI 112 Western Civilization since 1715

HI 221 U.S. History and Constitutions to 1865

HI 222 U.S. History and Constitutions since 1865

One course (three hours) from the 300-400 upper level courses. Students may select from the following areas:

Ancient Medieval

Early Modern-Modern

Non-US, Non-Western, National Histories

One course (three hours) from the 300-400 upper level courses. Students may select from any one of the following areas:

U.S. History to 1877

U.S. History since 1877

U.S. History-Topical

Only six hours of 100 level and six hours of 200 level courses may be applied toward a history major or minor.

Interdisciplinary Minor in Public History

The departments of History and Sociology and Anthropology offer an interdisciplinary minor in Public History that provides students with education and training for professional positions in public institutions such as museums, government offices, historical societies, national parks, and in business. The program is designed to serve the southeastern Massachusetts region.

Required courses:

HI 392 Seminar in Local History

HI 492 Historical Museum Management

or

HI 493 Museum Management: A Practicum

HI 498 Internship in History

AN 103 Introduction to Archeology

AN 303 Archeological Field Excavation in Prehistoric Sites in New England

or

AN 328 Archeology of North America

AN 410 Public Archeology

Suggested Electives:

HI 440 Topics: Public History

HI 441 The Colonial Period

HI 460 The History of American Indians

HI 461 American Immigration and Ethnicity

HI 464 New England Textile Communities: Social and Economic History

SO 306 Cities and People

SO 315 Ethnic Experience in America

PO 277 American Government: State and Local

For further information students should contact Professor Jean Stonehouse, chairperson, Department of History.

Graduate Programs

Master of Arts in Teaching Clinical Master's Program History

Certification Program (Standard Level)

This master's degree program is designed for students who have provisional certification with advanced standing and are seeking standard certification in the area of history (9-12, 5-9). (Students needing provisional certification with advanced standing should refer in this catalog to the program entitled "Post Baccalaureate Program: Provisional Certification with Advanced Standing for Secondary (Subject Areas: 9-12) and Middle Level (Subject Areas: 5-9) Teachers" under the *Department of Secondary Education and Professional Programs*.)

For information regarding application procedures and admission standards, students should consult the *Graduate School* section of this catalog.

Students seeking standard certification should consult the section of this catalog entitled *School of Education and Allied Studies* for information pertaining to professional certification, admission to and retention in Professional Education, as well as important institutional deadlines.

GP 501 Graduate Program Planning

All accepted students must enroll under the direction of their advisers in GP 501 Graduate Program Planning, which is described under "Graduate Adviser and Program Planning" in the *Graduate School* section of this catalog. As part of their programs, students must satisfactorily complete the following curriculum:

Education Core

- ED 530 Research Methods
- ED 531 The Curriculum Experience
- ED 532 Critical Issues - Educators and Society
- ED 533 Effective Practices in Human Development & Learning
- ED 534 Clinical Experience (6 crs.)
- ED 537 Applied Research Project (2 crs.)

(Course descriptions for ED 530-537 are provided in the *School of Education and Allied Studies* section of this catalog.)

Discipline Area Requirements

M.A.T. students are expected to have, or acquire in addition to degree requirements, an appropriate background of college level courses in history, to be determined by the department.

Required Courses:

In consultation with their advisers, students will select five courses from among the 500-level graduate courses offered by The Department of History. Among these offerings are:

- HI 501 Seminar in Historical Methodology
- HI 540 Topical Seminar: U.S.
- HI 545 Topical Seminar: Canada
- HI 550 Topical Seminar: Europe
- HI 560 Topical Seminar: Latin America
- HI 570 Topical Seminar: Africa
- HI 580 Topical Seminar: Asia

In addition, students enrolled in this degree program will complete HI 537 Applied Research Project (1 cr.)

For further information regarding course requirements, candidates should contact the Department of History's graduate program coordinator, Dr. Thomas Turner.

Each student must pass a comprehensive examination prior to being eligible to receive the Master of Arts in Teaching degree.

Students who successfully complete the above curriculum are eligible for standard certification.

Master of Arts in Teaching Clinical Master's Program Social Studies

Certification Program (Standard Level)

This master's degree program is designed for students who have provisional certification with advanced standing and are seeking standard certification in the area of social studies (9-12, 5-9). (Students needing provisional certification with advanced standing should refer in this catalog to the program entitled "Post Baccalaureate Program: Provisional Certification with Advanced Standing for Secondary (Subject Areas: 9-12) and Middle Level (Subject Areas: 5-9) Teachers" under the *Department of Secondary Education and Professional Programs*.)

For information regarding application procedures and admission standards, students should consult the *Graduate School* section of this catalog.

Students seeking standard certification should consult the section of this catalog entitled *School of Education and Allied Studies* for information pertaining to professional certification, admission to and retention in Professional Education, as well as important institutional deadlines.

School of Arts & Sciences

GP 501 Graduate Program Planning

All accepted students must enroll under the direction of their adviser in GP 501 Graduate Program Planning, which is described under "Graduate Adviser and Program Planning" in the *Graduate School* section of this catalog. As part of their program, students must satisfactorily complete the following curriculum:

Education Core

- ED 530 Research Methods
- ED 531 The Curriculum Experience
- ED 532 Critical Issues - Educators and Society
- ED 533 Effective Practices in Human Development & Learning
- ED 534 Clinical Experience (6 crs.)
- ED 537 Applied Research Project (2 crs.)

(Course descriptions for ED 530-537 are provided in the *School of Education and Allied Studies* section of this catalog.)

Discipline Area Requirements

M.A.T. students are expected to have, or acquire in addition to degree requirements, an appropriate background of college level courses, to be determined by the department.

History Core:

Students must choose three of the following if the Social Studies program emphasis is history. Students must choose two if the program emphasis is geography

- HI 501 Seminar of History Methodology
- HI 540 Topical Seminar U.S.
- HI 545 Topical Seminar: Canada
- HI 550 Topical Seminar Europe
- HI 560 Topical Seminar Latin America
- HI 570 Topical Seminar Africa
- HI 580 Topical Seminar Asia

Geography Core:

Students must choose the following three courses if the Social Studies program emphasis is geography. Choose two if the program emphasis is history.

- GS 555 Field Methods in Geographic Enquiry
- GS 560 Seminar in Geographic Enquiry
- GS 580 The regional Method in Geographic Analysis

Students must also complete HI 537 or GS 537 Applied Research Project (1 cr.)

For further information regarding course requirements, candidates should contact the Department of History's graduate program coordinator, Dr. Thomas Turner.

Each student must pass a comprehensive examination prior to being eligible to receive the Master of Arts in Teaching degree.

Students who successfully complete the above curriculum are eligible for standard certification.

Master of Arts in Teaching History Social Studies

Program for Teachers with Standard Certification

This program is designed for secondary and middle level subject area teachers who have standard certification.

Graduate Program Planning

All accepted students must enroll under the direction of their adviser in GP 501 Graduate Program Planning, which is described under "Graduate Adviser and Program Planning" in the *Graduate School* section of this catalog. As part of their program, students must satisfactorily complete the following curriculum:

- GP 501 Graduate Program Planning
- ED 530 Research Methods
- ED 531 The Curriculum Experience
- ED 532 Critical Issues - Educators and Society
- ED 533 Effective Practices in Human Development & Learning

(Course descriptions for ED 530 - 533 are provided in the *School of Education and Allied Studies* section of this catalog.)

Discipline Area Requirements

M.A.T. students are expected to have, or acquire in addition to degree requirements, an appropriate background of college level courses in history and the social sciences, to be determined by the department.

A minimum of 18 approved graduate credits in the academic area of concentration, which meet the academic and professional objectives of the student, is required.

Each student must pass a comprehensive examination prior to being eligible to receive the Master of Arts in Teaching degree.

For program details, candidates should consult the Department of History's graduate program coordinator, Dr. Thomas Turner.

Graduate Programs by Area

Each student entering a graduate program in history will choose, in consultation with the adviser, one of the four groups of historical study listed below as his or her major. Two areas must be chosen within the major group and one additional area from the remaining groups. Students majoring in group II, III, or IV must choose the additional area in the History of the United States. These areas must be declared on the departmental form upon entering the program. Students may not change the areas after the application for the comprehensive examination has been filed.

Candidates are expected to know historiography in each field.

The graduate program in history is divided into four major groups:

- I. United States and Canada
- II. Europe
- III. Latin America
- IV. Asia and Africa

Group I: United States and Canada Areas:

1. Chronological period, 1607-1787
2. Chronological period, 1787-1877
3. Chronological period, 1877 to present
4. Canada

Group II: Europe Areas:

1. Ancient Greece and Rome
2. Middle Ages and Renaissance
3. Early Modern and Revolutionary Europe
4. 19th and 20th Century Europe
5. Russia and Eastern Europe

Group III: Latin America Areas:

1. Pre-Columbian and Colonial Period
2. National Period
3. Brazil

Group IV: Asia and Africa Areas:

1. Ancient Middle East
2. Middle East since Mohammed
3. Colonial Africa
4. Modern Africa
5. China
6. Japan

*School of Arts & Sciences***Course Offerings*****Area I - Western and World Civilization**

- HI 111 Western Civilization to 1715
- HI 112 Western Civilization since 1715
- HI 121 The Ancient World
- HI 131 World History to 1500
- HI 132 World History since 1500

Area II - United States History Surveys

- HI 221 U.S. History and Constitutions to 1865
- HI 222 U.S. History and Constitutions since 1865

Area III - Ancient, Medieval, Early Modern Europe

- HI 400 The Ancient World: The Near East
- HI 403 Ancient Greece and the Hellenistic Age
- HI 404 The Ancient World: Rome
- HI 406 Rise of Early Christianity
- HI 407 Mystery Religions
- HI 408 Jews and Christians in the Ancient Roman World
- HI 415 Europe in the Middle Ages
- HI 418 Renaissance Europe
- HI 419 The Reformation and Wars of Religion
- HI 420 Early Modern Europe: Society and Culture
- HI 421 European Women's History: Medieval Renaissance and Reformation
- HI 425 British History since 1603
- HI 428 Louis XIV and Age of Absolutism
- HI 437 European National Histories (when appropriate)

Area IV - Modern Europe

- HI 426 British Empire and Commonwealth since 1815
- ID 427 Ireland in Literature and History, 1798-1922
- HI 429 The French Revolution and the Napoleonic Era
- HI 430 Nineteenth Century Europe
- HI 431 Twentieth Century Europe
- HI 432 Intellectual History of Modern Europe
- HI 433 Modern European Imperialism
- HI 436 History of East-Central Europe since 1918
- HI 437 European National Histories

Area V - U.S. History to 1877

- HI 441 U.S. History: The Colonial Period 1607-1763
- HI 442 U.S. History: The American Revolution, 1763-1787
- HI 443 U.S. History: The Early National Period
- HI 444 Jacksonian Democracy and the Coming of the Civil War
- HI 445 U.S. History: The Civil War
- HI 447 The American South
- HI 448 United States Foreign Relations to 1900
- HI 461 American Immigration and Ethnicity
- HI 463 History of the American City
- HI 464 New England Textile Communities: Social and Economic History
- HI 465 African-American History

- HI 466 Women in American History
- HI 489 History of Canadian-American Relations

Area VI - U.S. History since 1877

- HI 364 Topics in Recent American History
- HI 440 Topics in History: Vietnam
- HI 440 Topics in History: Assassinations
- HI 446 U.S. History: 1865-1990
- HI 449 United States Foreign Relations since 1900
- HI 453 U.S. History: The Progressive Era
- HI 455 America at War in the 20th Century
- HI 457 America since World War II
- HI 461 American Immigration and Ethnicity
- HI 462 American Labor History
- HI 463 History of the American City
- HI 464 New England Textile Communities: Social and Economic History
- HI 465 African-American History
- HI 466 Women in American History
- HI 471 Sport in American Life

Area VII - The Traditional World

- HI 409 Mesoamerican Societies and Cultures
- HI 422 Atlantic Slavery and Race Relations
- HI 423 Portuguese Seaborne Empire
- HI 434 Modern Russia to 1917
- HI 475 History of the Middle East
- HI 477 Latin America: The Colonial Period
- HI 480 History of Imperial China
- HI 483 South Asia: The Modern Period
- HI 487 Canada to Confederation
- HI 491 Medicine and Society in the Anglo-American World

Area VIII - Modern World

- HI 422 Atlantic Slavery and Race Relations
- HI 423 Portuguese Seaborne Empire
- HI 435 History of the U.S.S.R.
- HI 456 World War II
- HI 475 History of the Middle East
- HI 476 The Arab-Israeli Conflict
- HI 478 Latin America: The National Period
- HI 481 China under Communism
- HI 482 History of Modern Japan
- HI 483 South Asia: The Modern Period
- HI 484 War and Revolution in Modern Asia
- HI 486 Africa Since 1800
- HI 488 Canada since Confederation
- HI 489 History of Canadian-American Relations
- HI 491 Medicine and Society in the Anglo-American World
- HI 494 Quebec and Canada since 1867

****The following courses may be used to meet area requirements. The specific area, however, depends on the topic or topics addressed in the course:**

- HI 338 Honors Tutorial - Fall Semester
- HI 339 Honors Tutorial - Spring Semester

* See page 73 for general information regarding course offerings.

HI 391 Historiography
HI 392 History Seminar
HI 393 Study and Writing of History
HI 485 Honors Thesis
HI 490 Historical Studies at Oxford
HI 495 Undergraduate History Colloquium
HI 496 Undergraduate History Seminar
HI 498 Internship in History
HI 499 Directed Study in History

HI 111 Western Civilization to 1715 (3 crs.)

The course surveys the major developments from the genesis of Western civilization to the establishment of absolute monarchy. These developments include the Near Eastern, the Graeco-Roman, and the Judeo-Christian traditions of our civilization. Satisfies the GER in History. *Either semester*

HI 112 Western Civilization since 1715 (3 crs.)

The course surveys the major developments in Western civilization from the establishment of absolute monarchy to the present. These developments include the evolution of political, economic, social and intellectual aspects of the modern world. Satisfies the GER in History. *Either semester*

HI 121 The Ancient World (3 crs.)

This course presents a global view of ancient history with emphasis on Western civilization. It covers prehistoric humans and the various ancient civilizations to the decline of the Roman Empire in the West. Satisfies the GER in History. *Either semester*

HI 131 World History to 1500 (3 crs.)

This course will survey major issues in the politics, society, culture and economy of human societies around the world, from human evolution to 1500. Satisfies the GER in History.

HI 132 World History Since 1500 (3 crs.)

This course will survey major issues, events and processes in the politics, society and economy across societies from the world's major regions, from 1500 to present. Satisfies the GER in History.

HI 135-136 Freshman Honors Colloquium (1 cr. each semester)

Freshman Honors Colloquia in History allow exceptionally able students to explore a challenging topic in small classes under close faculty supervision. Colloquia meet once a week for fifty minutes and culminate in a paper or scientific project which provides the major part of the grade. Open to All-College Honors students and to others at the discretion of the instructor. The minimum enrollment is two and the maximum is twelve. Topics vary from semester to semester. (*Prerequisite: consent of the instructor*) HI 135 fall semester, HI 136 spring semester

HI 151 Asian Civilization (3 crs.)

An introductory survey of the major Asian civilizations including those of China, Japan, and India. This course presents a historical view of Asian traditions and their modern transformation in the context of East-West interactions. Satisfies GER in Non-Western Civilization.

HI 221 United States History and Constitutions to 1865 (3 crs.)

This course examines the development of the nation from the age of

exploration to the end of the Civil War. It emphasizes the economic, political, intellectual and social maturing of the United States. Satisfies the GER in History. *Either semester*

HI 222 United States History and Constitutions since 1865 (3 crs.)

This course continues the study begun in HI 221 down to the present. It emphasizes the growth of America as an industrial and world power and the increasing role of government in American life. Satisfies the GER in History. *Either semester*

HI 286-287 Sophomore Honors Colloquium (1 cr. each semester)

Sophomore Honors Colloquia in History allow exceptionally able students to explore a challenging topic in small classes under close faculty supervision. Colloquia meet once a week for fifty minutes and culminate in a paper or scientific project which provides the major part of the grade. Open to All-College Honors students and to others at the discretion of the instructor. The minimum enrollment is two and the maximum is twelve. Topics vary from semester to semester. (*Prerequisite: consent of the instructor*) HI 286 fall semester, HI 287 spring semester

300 and 400-level courses in history are designed primarily for juniors and seniors. As a minimum preparation, those taking upper-level courses in European, Asian, African, and Latin American history must have completed 3 credits in either Western Civilization or World Civilization. Those taking upper-level courses in U.S. or Canadian history must have completed either HI 221 or HI 222. Exceptions to these requirements must be approved by the department.

HI 338-339 Honors Tutorial (3 crs. each semester)

Special topics in history. Open to All-College and departmental honors students. Three hourly meetings weekly. (*Prerequisite: consent of the department*) HI 338 fall semester, HI 339 spring semester

HI 365 American Economic History (3 crs.)

Overview from colonial era to present, addressing the role of innovation, technology and the law as well as changes in economic organization and labor relations, focusing on the industrial revolution and post-industrial America.

HI 391 Historiography (3 crs.)

Writings of major historians, evaluation through professional journals and book reviews. Enrollment limited to fifteen. Students are expected to elect HI 393. (*Prerequisite: consent of the department chairperson and the instructor*) Fall semester (formerly HI 491)

HI 392 History Seminar (3 crs.)

A research paper is required. The number of students in each is limited. (*Prerequisite: consent of the department chairperson and the instructor*) Spring semester (formerly HI 492)

HI 393 Study and Writing of History (3 crs.)

The techniques of historical research and preparation of papers requiring such techniques, analysis and evaluation of source materials. (*Prerequisite: consent of the instructor*) Spring semester (formerly HI 493)

HI 400 The Ancient World: Near East (3 crs.)

From prehistoric times through the Persian Empire. Offered alternate years (formerly HI 300)

School of Arts & Sciences

HI 403 Ancient Greece and the Hellenistic Age (3 crs.)

An historical survey of Ancient Greece and a comprehensive study of the cultural contributions of the Greeks to western civilization. *Offered alternate years (formerly HI 303)*

HI 404 The Ancient World: Rome (3 crs.)

From its beginnings to the barbarian invasions. *Offered alternate years (formerly HI 310)*

HI 406 Rise of Early Christianity (3 crs.)

This course traces the development of Christian beginnings from the birth of Christ to the Council of Nicaea in 325 A.D. It intends to examine the cultural, social, intellectual, political and religious climate in the Roman Empire out of which Christianity sprang, the problems the early Christians encountered, and the Christian reaction to these problems. *(Prerequisite: HI 111) (formerly HI 312)*

HI 407 Mystery Religions (3 crs.)

The course will examine the survival of Greek religion in the empire of Alexander the Great and his successors, and the interaction of the Greek religion with the religions of the Ancient Near East under the new conditions and circumstances created by Alexander's conquests. *Offered alternate years (formerly HI 403)*

HI/AN 409 Mesoamerican Societies and Cultures (3 crs.)

This course examines some of the major societies and culture areas in Mesoamerica (Mexico and Central America) from ten thousand years before present up to and through the early conquest period (the sixteenth century). Cultures to be examined, including the Olmec, Teotihuacan, Toltecs, Aztecs and Maya. Issues of daily life, family, gender roles, religion, trade, warfare, politics culture, and reactions to conquest will be considered. *(Prerequisites: One of the following: HI 111, HI 112, HI 222, HI 131, HI 132)*

HI 415 Europe in the Middle Ages (3 crs.)

From the fall of Rome to the Renaissance. *Offered once in three years (formerly HI 315)*

HI 418 The Renaissance Europe (3 crs.)

This course will begin with an examination of the implications of the commercial revolution in Western Europe and with the rise of the Italian communes and then explore the demographic, social, political, military, cultural, and economic history of western and central Europe during the Renaissance. *(Prerequisites: One of the following: HI 111, HI 112, HI 131, or HI 132)*

HI 419 The Reformation and Wars of Religion (3 crs.)

This course will examine the causes, conditions, and results including domestic and international warfare of the Protestant Reformation and Catholic Reform movement in Europe and its colonies to ca. 1648. *(Prerequisites: One of the following: HI 111, HI 112, HI 131, or HI 132)*

HI 420 Early Modern Europe: Society and Culture (3 crs.)

This course will explore the history of European social and economic life, thought, and culture of elites and common folk from the sixteenth through the eighteenth centuries. *(Prerequisites: One of the following: HI 111, HI 112, HI 131, or HI 132)*

HI 421 European Women's History: Medieval Renaissance and Reformation (3 crs.)

An examination of the prescriptive notions of "woman" as well as the varieties of actual historical experiences of women in western European society from the early Middle Ages through the Renaissance and Reformation periods (ca. 500-1650) *(Prerequisite: HI 111 or 112 or consent of instructor) Offered alternate years (formerly HI 417)*

HI 422 Slavery and Race in the Atlantic World (3 crs.)

This course examines comparatively some of the major issues of slavery and race relations across societies in Latin America, the Caribbean, and West Africa between the fifteenth and the twentieth centuries. Themes will include theories of slavery and race, family, community, work culture, abolition, and race issues in post-emancipation societies. *(Prerequisites: One of the following: HI 111, HI 112, HI 121, HI 221, HI 222, HI 131, or HI 132)*

HI 423 Portuguese Seaborne Empire (3 crs.)

This course examines the rise, expansion, decline, and legacy of the Portuguese empire in Africa, Asia, and the Americas between the fifteenth and twentieth centuries. Topics to be explored include overseas exploration, cross-cultural contact, gender relationships, slavery, relations among different ethnic groups, relations between overseas communities and Lisbon, trade, administration, religious, and cultural issues. *(Prerequisites: One of the following: HI 111, HI 112, HI 121, HI 131, or HI 132)*

HI 425 British History since 1603 (3 crs.)

England and its empire to 1815 with stress on parallel developments in American history, including economic and social factors. *Offered alternate years (formerly HI 321)*

HI 426 British Empire and Commonwealth since 1815 (3 crs.)

Political development to the present with emphasis on the rise and fall of the second empire. *(formerly HI 324) Spring Semester*

HI 429 The French Revolution and the Napoleonic Era (3 crs.)

France from the old Regime to the end of the First Empire. *Offered once in three years (formerly HI 426)*

HI 430 Nineteenth Century Europe (3 crs.)

From the Napoleonic era to the eve of the First World War. *Fall semester (formerly HI 328)*

HI 431 Twentieth Century Europe (3 crs.)

Particular focus on backgrounds, development, and effects of the two world wars. *Spring semester (formerly HI 329)*

HI 432 Intellectual History of Modern Europe (3 crs.)

From the Renaissance to the present. *Offered once in three years (formerly HI 423)*

HI 433 Modern European Imperialism (3 crs.)

Africa and Asia considered as contrasting phases of European expansion in the nineteenth and twentieth centuries. *Offered once in three years (formerly HI 424)*

HI 434 Modern Russia to 1917 (3 crs.)

Political, social, and economic factors in the history of Russia from the end of the fifteenth century to the Revolution. *Offered alternate years (formerly HI 334)*

HI 435 History of the U.S.S.R. (3 crs.)

The political, social, intellectual, and diplomatic history of the Soviet Union. *Spring semester (formerly HI 439)*

HI 436 History of East-Central Europe since 1918 (3 crs.)

The political, social, economic, cultural, and intellectual history of Austria, Hungary, Czechoslovakia, and Poland during the interwar period—and that of the Socialist Republics (Hungary, Czechoslovakia, Poland, and East Germany) from the Second World War to the present. *Offered once in three years (formerly HI 330)*

HI 437 European National Histories (3 crs.)

This course will treat an individual nation in the context of Modern European History. The country to be studied will be announced in the semester horarium in advance and may focus, for example, on France, Germany, Italy, Poland, Portugal, or Spain. *(Prerequisites: One of the following: HI 111, HI 112, HI 131, or HI 132)*

HI 439 Topics in Non-U.S. History (3 crs.)

Varied topics such as the Crusades, Ancient Egypt. *Either semester (formerly HI 400)*

HI 440 Topics in U.S. History (3 crs.)

Varied topics such as the French in New England, History of Boston, American assassinations, the Vietnam War, and Abraham Lincoln. *Either semester*

HI 441 United States History: The Colonial Period 1607-1763 (3 crs.)

The settlement and growth of the English colonies of America; England's colonial policies; economic and institutional development in the provincial period; the wars with the Indians, and the rivalry with the French in America. *Offered alternate years (formerly HI 341)*

HI 442 United States History: The American Revolution 1763-1787 (3 crs.)

Background and causes of the American Revolution, the military, social, political, and diplomatic aspects of the Revolution. The government under the Articles of Confederation, and the problems engendered by the attainment of political independence. *Offered alternate years (formerly HI 343)*

HI 443 United States History: The Early National Period (3 crs.)

United States History from the establishment of the Republic to the election of Andrew Jackson. *(formerly HI 345)*

HI 444 Jacksonian Democracy and the Coming of the Civil War (3 crs.)

The election of Andrew Jackson and the "rise of the common man," the Whig-Democrat rivalry, the Texas question, Manifest Destiny, the rise of abolitionism, the events leading to the outbreak of the Civil War. *(formerly HI 347)*

HI 445 United States History: The Civil War (3 crs.)

Background and causes of the Civil War, the military and naval aspects. Civil War music, art, and literature; diplomacy of the Civil War; the home front in the war; the plans for reconstruction; and military reconstruction. *Fall semester (formerly HI 349)*

HI 446 United States History: 1865-1900 (3 crs.)

The emphasis is on Reconstruction, Populism and Bryan, Gilded Age and Cleveland, Imperialism and McKinley. *(formerly HI 351)*

HI 447 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, and industrialization. *Spring semester (formerly HI 352)*

HI 448 United States Foreign Relations to 1900 (3 crs.)

From the American Revolution to 1900. *Fall semester (formerly HI 353)*

HI 449 United States Foreign Relations since 1900 (3 crs.)

From 1900 to present. *Spring semester (formerly HI 354)*

HI 450 Social and Intellectual History of the U.S. to 1870 (3 crs.)

Economic, social, and cultural development to the end of the Civil War. *Offered alternate years (formerly HI 356)*

HI 451 Social and Intellectual History of the United States 1870-1914 (3 crs.)

The economic, social, and cultural development from 1870 to the eve of the First World War, with emphasis on the transformation from an agricultural to an industrial society. *Offered alternate years (formerly HI 357)*

HI 452 Social and Intellectual History of the U.S. since 1914 (3 crs.)

Economic, social, and cultural developments from 1914, with emphasis on the transformation of American life through such forces as technology, population trends, and the mass-production and mass-consumption economy. *Offered alternate years (formerly HI 358)*

HI 453 United States History: Progressive Era (3 crs.)

The rise of the Progressive movement in American history to the early 1920's as reflected in politics, government, and the social and intellectual life of the era. *Offered alternate years (formerly HI 359)*

HI 456 World War II (3 crs.)

A study of the global conflict with emphasis on military, diplomatic, and political events. *Fall semester (formerly HI 435)*

HI 457 America Since World War II (3 crs.)

The political, social, cultural and diplomatic development of America since World War II with emphasis on the Cold War, the Civil Rights Movement, and the debate over Welfare State. *(Prerequisite: HI 221 and HI 222)*

HI 460 History of American Indians (3 crs.)

The history of American Indians to the twelfth century, emphasizing the role of economics, politics, military conflict with the people and government of the United States. *(Prerequisite: HI 221 and HI 222) Fall semester*

*School of Arts & Sciences***HI 461 American Immigration and Ethnicity (3 crs.)**

Patterns of migration to the United States with particular emphasis on the nineteenth and twentieth centuries. *Fall semester (formerly HI 443)*

HI 462 American Labor History (3 crs.)

The pre-industry and industrial periods. Emphasis on reciprocal relations of workers, immigrants, urbanization, and industrialization. *Either semester (formerly HI 445)*

HI 463 History of the American City (3 crs.)

Political, architectural, economic, social, cultural, and population factors in the growth and development of American cities since colonial times. *Offered alternate years (formerly HI 447)*

HI 464 New England Textile Communities: Social and Economic History (3 crs.)

Social history emphasizing economic, ethnic, labor, political and religious factors during a period when the New England region achieved ascendancy as the nation's foremost cotton textile area. *Offered alternate years (formerly HI 455)*

HI 465 African-American History (3 crs.)

From the colonial period through the present. *(formerly HI 449)*

HI 466 Women in American History (3 crs.)

A history of American women from the colonial period to the present time. *Offered alternate years (formerly HI 451)*

HI 467 American Environmental History (3 crs.)

Man's attitude toward, interaction with, and adaptations to the physical environment of the United States. *Offered alternate years (formerly HI 457)*

HI 468 History of American West (3 crs.)

The Trans-Mississippi west from 1800, taking a multi-cultural approach and emphasizing those cultural, environmental, political and economic aspects which explain its importance and regional distinctiveness. *(formerly HI 453)*

HI 469 American Political History (3 crs.)

American history in political perspective: special emphasis on parties, primaries, campaigns, elections; the Presidency; personality in politics; machine politics; political institutions; corruption from U. S. Grant to the present. *(formerly HI 463)*

HI 471 Sport in American Life (3 crs.)

The rise of sport in American society, stressing its cultural, economic, and social impact since the Civil War. *(Prerequisite: HI 221 or HI 222) Spring semester (formerly HI 459)*

HI 472 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. *Offered once in three years (formerly HI 461)*

HI 475 History of the Middle East (3 crs.)

From Mohammed to the present: the Arab Empire, the Ottoman Empire, and the roots of the Arab-Israeli dilemma. *Offered alternate years (formerly HI 331)*

HI 476 The Arab-Israeli Conflict (3 crs.)

Zionism and Arab nationalism from the nineteenth century to the present with emphasis on the root causes of the present conflict. *Spring semester (formerly HI 352)*

HI 477 Latin America: The Colonial Period (3 crs.)

Indigenous peoples of the area, exploration and conquest, institutional development of the empire to the revolts against Spain. *(formerly HI 380)*

HI 478 Latin America: The National Period (3 crs.)

From the revolutions against Spain to the present. *(formerly HI 381)*

HI 480 History of Imperial China (3 crs.)

This course will provide an overview of Chinese civilization and society, with an emphasis on the history of late imperial China from the eleventh through the nineteenth centuries.

HI 481 China Under Communism (3 crs.)

The social, political, and economic transformation of China from an agrarian empire to a revolutionary, socialist nation. *(Prerequisite: one of the following: HI 111, HI 112, HI 121, HI 131, HI 132, HI 151, HI 221, HI 222)*

HI 482 History of Modern Japan (3 crs.)

This course will provide an overview of Japan's transformation from a feudal regime to a modern nation, with an emphasis on the period from 1600 to the present.

HI 483 South Asia: The Modern Period (3 crs.)

Emphasis on colonialism and nationalism in the Indian subcontinent and Vietnam. *Fall semester (formerly HI 386)*

HI 484 War and Revolution in Modern Asia (3 crs.)

This course will examine the revolutionary movements and military conflicts in Asia in the twentieth century, with an emphasis on China and Japan. *(Prerequisites: one of the following: HI 111, HI 121, HI 131, HI 132, HI 151, HI 221, HI 222)*

HI 485 Honors Thesis (3 crs.)

This course is open to All-College and Departmental Honors students. One-hour weekly meetings with the thesis director will culminate in an honors thesis. With the consent of the Departmental Honors Committee and the thesis director, this course may be extended into a second semester for three additional credits depending upon the scope of the project. Whether the final version of the thesis qualifies the student to graduate with honors will be determined by the Departmental Honors Committee. *Either semester*

HI 487 Canadian History to Confederation (3 crs.)

The land, the native peoples, exploration, patterns of settlement of the French through the Conquest to the development of English institutions. *(formerly HI 375) Fall semester*

HI 488 Canadian History since Confederation (3 crs.)

The evolution of an independent Canada from the time of the Confederation. *Spring semester (formerly HI 376)*

HI 489 History of Canadian-American Relations (3 crs.)

An analysis of the Canadian efforts to remain friendly with the giant to the south while protecting its political, economic and cultural integrity. *Offered once in three years (formerly HI 475)*

HI 490 Historical Studies at Oxford (3 crs.)

Study of selected topics in European History. (This is a special program in England at Oxford University during July. Additional fees are required.) Open to juniors and seniors only.

HI 491 Medicine and Society in the North Atlantic World (3 crs.)

This course explores themes in the social history of health, medicine and gender in the English-speaking North Atlantic world, from the beginning of the eighteenth century to 1920. The course compares how western societies have conceived of "health" for men and women and examines how the delivery of medical care in these societies changed over time. Specific topics will include changing conceptions of the body, popular healing, and medical professionalization. The course includes both lectures and seminars. *(Prerequisite: one of the following; HI 111, HI 112, HI 121, HI 131, HI 132, HI 221, HI 222 or consent of instructor)*

HI 492 Historical Museums Management (3 crs.)

Critically assesses the role and effectiveness of museums in the public's awareness of American history. *(formerly HI 497)*

HI 493 Museum Management: A Practicum (3 crs.)

Students will be introduced to all facets of museum work in a small museum environment. *(Prerequisite: HI 221 and HI 222)*

HI 494 Quebec and Canada since 1867 (3 crs.)

This course examines the love-hate relationship that emerged between French Canada and English Canada in the years between Confederation and the 1995 referendum on separatism in Quebec. How did francophones and anglophones negotiate coexistence within Canada in these years? What are the main sources of separatist feeling in French Quebec? Themes that will be examined include the economic dominance of English Canada over French Canada, the transformation of Quebecois nationalism, and the importance of language protection to French-Canadian culture. *(Prerequisite: one of the following; HI 111, HI 112, HI 121, HI 131, HI 132, HI 221, HI 222 or consent of instructor)*

HI 495 Undergraduate History Colloquium (3 crs.)

The undergraduate history colloquium is a text and discussion-based, writing-intensive course that focuses on a specific historical topic and relevant historiographical issues, and required development of research skills. *(Prerequisites: Two of the following; HI 111, HI 112, HI 121, HI 131, HI 132; and HI 221 and HI 222)*

HI 496 Undergraduate History Seminar (3 crs.)

The undergraduate history seminar is an intensive course in which students will write a major research paper involving original research. Students will present and critique papers on specific historical topics and relevant historiographical literature. This course does not carry graduate credit. *(Prerequisites: two of the following; HI 111, HI 112, HI 121, HI 131, HI 132; and HI 221, HI 222 or consent of instructor)*

HI 498 Internship in History (3-6 crs.)

Intended to expose student participants to historical artifacts and primary source materials. Host agencies may include museums and public and private historical organizations. *(Prerequisite: consent of the department; formal application required)* Either semester

HI 499 Directed Study in History (1-3 crs.)

Open to juniors and seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits or with an internship program—combined credit maximum, 6. *(Prerequisite: consent of the department; formal application required)* Either semester

Other Approved Courses:

HI 122 World Civilization II: Medieval

HI 123 World Civilization III: Early Modern

HI 364 Topics in Recent American History

HI 366 Constitutional History of the United States

HI 408 Jews and Christians in the Ancient Roman World

HI 428 Louis XIV and the Age of Absolutism

HI 470 Contemporary Affairs

HI 486 Africa since 1800

HI 501 Seminar in Historical Methodology (3 crs.)

The basic methods of historical research and historical writing and the proper use of primary and secondary sources, bibliography, documentation, and annotation. *(Prerequisite: acceptance in a master's degree program at Bridgewater State College)*

HI 502 Research (credit to be arranged)

Original research undertaken by the graduate student in his field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

HI 503 Directed Study (credit to be arranged)

Designed for the graduate student who desires to study selected topics in a specific field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

HI 521 Pilgrim Heritage Seminar (3 crs.)

The Pilgrims in their economic, social, and religious setting. Admission only with the consent of the instructor.

HI 537 Applied Research Project (1 cr.)

In this course, students complete an applied research project which integrates theory and practice utilizing educational research format and disciplinary knowledge.

HI 540 Topical Seminar: U.S. and Canada (3 crs.)

This course will stress reading and research in a limited field. Topics will vary each time the course is given and will be announced in the course offering brochure. Limited enrollment. *(Prerequisite: consent of the instructor)*

HI 545 Topical Seminar: Canada (3 crs.)

This course will stress reading and research in a limited field. Topics will vary each time the course is given and will be announced in the course offerings brochure. *(Prerequisite: consent of instructor)*

School of Arts & Sciences

HI 550 Topical Seminar: Europe (3 crs.)

This course will stress reading and research in a limited field. Topics will vary each time the course is given and will be announced in the course offering brochure. Limited enrollment. (*Prerequisite: Two appropriate European history courses and permission of the instructor*)

HI 560 Topical Seminar: Latin America (3 crs.)

This course will stress reading and research in a limited field. Topics will vary each time the course is given and will be announced in the course offering brochure. Limited enrollment. (*Prerequisite: HI 333 and HI 434 or equivalents*)

HI 570 Topical Seminar: Africa (3 crs.)

This course will stress reading and research in a limited field. Topics will vary each time the course is given and will be announced in the course offering brochure. Limited enrollment. (*Prerequisite: HI 431 or equivalent*)

HI 580 Topical Seminar: Asia (3 crs.)

This course will stress reading and research in a limited field. Topics will vary each time the course is given and will be announced in the course offering brochure. Limited enrollment. (*Prerequisite: Consent of the instructor*)

Other Approved Courses:

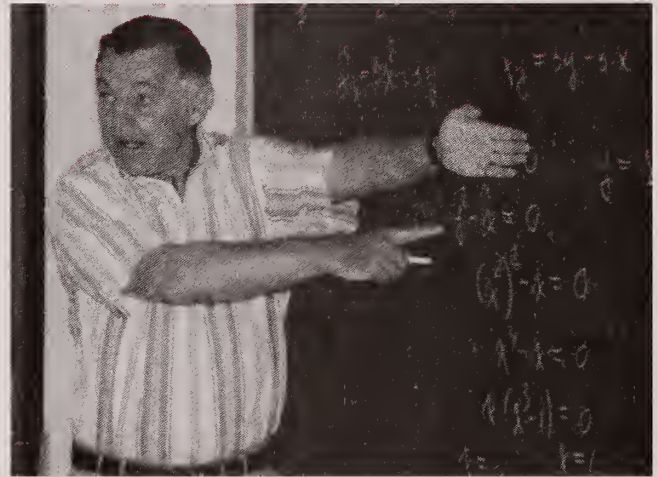
The following courses also carry credit in history:

- ID 200 Introduction to Canadian Studies
- ID 211 History and Literature of Western Civilization I
- ID 220 Introduction to American Studies
- ID 420 American Studies Seminar
- ID 427 Ireland in Literature and History, 1798-1922

Department of Mathematics & Computer Science

Faculty

- Chairperson:** Associate Professor Gail Price
- Professors:** Hang-Ling Chang, Zon-I Chang,
Paul Fairbanks, Walter Gleason,
Thomas Moore, Glenn Pavlicek,
Philip Scalisi, George Sethares,
Uma Shama, Robert Sutherland
- Associate Professors:** Frank Lambiase, Michael Makokian,
John Nee
- Assistant Professors:** Torben Lorenzen, Richard Quindley,
Abdul Sattar, Linda Wilkens
- Instructors:** Dean Hougen, Ward Heilman



Undergraduate Programs

Bachelor of Arts/Bachelor of Science in Mathematics

Since mathematics is both a cultural and a technical field of study, the curriculum is planned with the following objective:

1. to introduce students to mathematics as an important area of human thought;
2. to prepare students for careers in industry;
3. to give preparation to students for graduate study in mathematics and related fields;
4. to prepare students planning to teach mathematics on the secondary level;
5. to serve the needs of students in fields which rely on mathematics, e.g., experimental sciences, social sciences, and elementary education.

Double Major with Elementary Education, Early Childhood Education or Special Education

Students may choose a double major in Mathematics and Elementary Education, Early Childhood Education or Special Education for certification purposes. Appropriate advising materials with suggested course sequences are available.

Minor in Secondary (High School) or Middle School Education

Students may minor either in Secondary (High School, grades 9-12) or Middle School (grades 5-9) Education. Successful completion of either of these programs will lead to Massachusetts Provisional with Advanced Standing Teacher Certification. Please refer to the Department of Secondary Education and Professional Programs for specific teacher certification and program requirements.

Bachelor of Arts/Bachelor of Science in Computer Science

This program provides a broad background in computer science and will serve as preparation for employment in computer applications or for graduate studies in the field.

The department participates in a number of multidisciplinary programs for students preparing for careers in medicine, dentistry, or oceanography. Additional information on these programs may be found in the section *Interdisciplinary and Pre-Professional Programs*.

Mathematics Major

All majors are required to take:
MA 151-152 Calculus I-II
MA 201 Calculus III
MA 202 Linear Algebra
MA 301 Abstract Algebra I
MA 401 Introduction to Analysis I

School of Arts & Sciences

One course from the following: CS 101 or CS 200

Five electives from any 300 or 400 level courses except MA 318. PH 403 Mathematics Physics may be taken as one of these five electives. Majors preparing for secondary school teaching careers must take MA 403 Probability Theory, MA 408 History of Mathematics and three electives. All majors must also successfully complete PH 243-244 General Physics I-II.

Students who are contemplating majoring in mathematics or computer science should be aware of the sequential nature of the course offerings. It is of prime importance that students consult with the chairperson of the department as soon as possible. This will enable them to plan their programs so that degree requirements may be completed within a four year period.

Computer Science Major

All majors are required to take:

- CS 101 Computer Science I
- CS 102 Computer Science II
- CS 201 Assembly Language Programming
- CS 206 Introduction to Computer Organization
- CS 330 Data Structures and Algorithms
- CS 336 File Processing and Business Applications
- CS 340 Organization of Programming Languages
- CS 350 Operating Systems

At least three electives (9 semester hours) must be selected from:

- CS 280 Fundamentals of Microprocessors & Microcomputers
- CS 345 Compiler Construction
- CS 395 Computer Science Seminar
- CS 399 Topics in Theoretical Computer Science
- CS 405 Introduction to Database Systems
- CS 430 Computer Networks
- CS 435 Analysis of Algorithms
- CS 436 Computer Graphics
- CS 445 Logic Programming
- CS 460 Introduction to Robotics
- CS 470 Introduction to Artificial Intelligence
- CS 498 Internship in Computer Science
- MA 382 Switching Theory
- or
- MA 415 Numerical Analysis
- PH 392 Digital Electronics

All majors must also take:

- MA 120 Introduction to Linear Algebra
- MA 130 Discrete Mathematics I
- MA 151-152 Calculus I-II
- MA 330 Discrete Mathematics II

Not more than one grade in the D range (D+, D, D-) among the five courses CS 101, CS 102, CS 201, CS 206 and CS 330 shall be accepted in partial fulfillment of the requirements for the major in computer science. A student receiving a second D in one of the above must repeat the course with the higher number and receive a C- or better before being allowed to enroll in other computer science courses.

Any computer science major who has successfully completed CS 102 will not be allowed to take CS 100 or CS 105 for academic credit.

Mathematics Minor

A minimum of eighteen hours is required. Students must satisfy the following three requirements:

1. MA 151-152 Calculus I-II or MA 141-142 Elements of Calculus I-II.
2. One course from among:
 - MA 120 Introduction to Linear Algebra
 - MA 202 Linear Algebra
 - MA 214 Introduction to Modern Algebra
3. Three *additional* courses from among:
 - MA 110 Elementary Statistics I
 - MA 111 Elementary Statistics II
 - MA 120 Introduction to Linear Algebra
 - MA 130 Discrete Mathematics I
 - MA 200 Probability and Statistics
 - MA 201 Calculus III
 - MA 202 Linear Algebra
 - MA 214 Introduction to Modern Algebra
 - MA 216 Analytic Geometry
 - any 300 or 400 level MA courses

Students who take one course from any of the following pairs of courses may not take the other course of that pair for credit towards the minor

- MA 110 and MA 200
- MA 120 and MA 202
- MA 214 and MA 301

Students may elect to take MA 220 Introduction to Calculus to satisfy #1 above. Students who do so must take four courses to satisfy #3 above although they may use up to two courses from among MA 105 Selected Topics in Mathematics, MA 107 College Math for Elementary Majors I, and MA 108 College Math for Elementary Majors II to satisfy that requirement.

Mathematics & Computer Science

Computer Science Minor

CS 101 Computer Science I
 CS 102 Computer Science II
 CS 201 Assembly Language Programming
 and three additional courses.

These three additional courses to be selected from:

PH 392 Digital Electronics
 or any computer science courses which are
 approved for majors.

Graduate Programs

Master of Science in Computer Science

The Master of Science in Computer Science is intended to meet the growing need for high-level computer professionals by:

- Strengthening the preparation of individuals currently working in computer-related fields;
- Training professionals in other areas who wish to apply computer science to their respective fields or who desire to retrain for entry in a computer science career;
- Providing the necessary general and theoretical background for those individuals who wish to continue graduate study in computer science beyond the master's degree.

The program consists of 30 credit hours and may be completed entirely on a part-time basis (courses are offered in the late afternoon or evening).

The Master of Science in Computer Science program seeks to attract individuals from various backgrounds who are highly motivated and prepared to meet the challenges of a rigorous advanced degree curriculum. In addition to a bachelor's degree, applicants should be familiar with the organization of computers and have competencies in

- a high-level programming language such as C, C++, or Java
- discrete and continuous mathematics
- data structures and algorithms

Demonstrated competencies within these areas can be achieved through professional experience, undergraduate study, or transitional graduate coursework. (CP 510, CP 520, CP 530) If you do not already have a Computer Science degree, graduate faculty are available to help you evaluate your preparedness.

1. Candidates must successfully complete each of the following courses:

CS 520 Operating Systems Principles
 CS 540 Automata, Computability, and Formal Languages
 CS 545 Analysis of Algorithms
 CS 560 Artificial Intelligence
 CS 590 Computer Architecture

2. Candidates must successfully complete five courses from among the following:

CS 510 Topics in Programming Languages
 CS 525 Design and Construction of Compilers
 CS 530 Software Engineering
 CS 536 Graphics
 CS 550 Topics in Discrete Mathematics
 CS 562 Expert Systems
 CS 565 Logic Programming
 CS 570 Robotics
 CS 575 Natural Language Processing
 CS 580 Database Systems
 CS 582 Distributed Database Systems
 CS 594 Computer Networks
 CS 596 Topics in Computer Science
 CS 599 Computer Science Seminar

Topics in computer science (CS 596) have recently addressed issues such as human-computer interaction, object oriented software development, computer security, computer vision, and computer learning systems.

3. At the conclusion of the program, you will have the option of sitting for a comprehensive written exam, which incorporates subject matter from the five required courses, or completing a capstone project that allows you to pursue an area of interest in depth.

Master of Arts in Teaching Clinical Master's Program Mathematics

Certification Program (Standard Level)

This master's degree program is designed for persons who have provisional certification with advanced standing and are seeking standard certification in the area of mathematics (9-12, 5-9). (Students needing provisional certification with advanced standing should refer in this catalog to the program entitled "Post Baccalaureate Program: Provisional Certification with Advanced Standing for Secondary (Subject Areas: 9-12) and Middle Level (Subject Areas: 5-9)

School of Arts & Sciences

Teachers" under the *Department of Secondary Education and Professional Programs.*)

For information regarding application procedures and admission standards, students should consult the *Graduate School* section of this catalog.

Students seeking standard certification should consult the section of this catalog entitled *School of Education and Allied Studies* for information pertaining to professional certification, admission to and retention in Professional Education, as well as important institutional deadlines.

GP 501 Graduate Program Planning

All accepted students must enroll under the direction of their adviser in GP 501 Graduate Program Planning, which is described under "Graduate Adviser and Program Planning" in the *Graduate School* section of this catalog. As part of their program, students must satisfactorily complete the following curriculum:

Education Core

- ED 530 Research Methods
- ED 531 The Curriculum Experience
- ED 532 Critical Issues - Educators and Society
- ED 533 Effective Practices in Human Development & Learning
- ED 534 Clinical Experience (6 crs.)
- ED 537 Applied Research Project (2 crs.)

(Course descriptions for ED 530-537 are provided in the *School of Education and Allied Studies* section of this catalog.)

Discipline Area Requirements

M.A.T. students are expected to have, or acquire in addition to degree requirements, an appropriate background of college level courses, to be determined by the department.

Required Courses:

- MA 508 History of Mathematics

At least one from:

- MA 510 Group Theory
- MA 511 Ring Theory

At least one from:

- MA 518 Topics in Analysis
- MA 520 Real Analysis
- MA 522 Complex Analysis

Two other 500 level mathematics courses, selected in consultation with the adviser

MA 537 Applied Research Project (1 cr.)

Each student will be required to pass a comprehensive examination prior to being eligible to receive the Master of Arts in Teaching degree.

Students who successfully complete the above curriculum are eligible for standard certification.

Master of Arts in Teaching Mathematics

Program for Teachers with Standard Certification

This program is designed for secondary and middle level subject area teachers who have standard certification.

All accepted students must enroll under the direction of their adviser in GP 501 Graduate Program Planning, which is described under "Graduate Adviser and Program Planning" in the *Graduate School* section of this catalog. As part of their program, students must satisfactorily complete the following curriculum:

- GP 501 Graduate Program Planning
- ED 530 Research Methods
- ED 531 The Curriculum Experience
- ED 532 Critical Issues - Educators and Society
- ED 533 Effective Practices in Human Development & Learning

(Course descriptions for ED 530 - 533 are provided in the *School of Education and Allied Studies* section of this catalog.)

Discipline Electives

M.A.T. students are expected to have, or acquire in addition to degree requirements, an appropriate background of college level courses, to be determined by the department.

A minimum of 18 approved graduate credits in the academic area of concentration, which meet the academic and professional objectives of the student, is required.

Successful completion of a comprehensive examination is also required.

Mathematics & Computer Science

Course Offerings*

Mathematics

MA 100 Precalculus Mathematics (3 crs.)**

This course provides a review of algebraic fundamentals (exponents, logarithms, linear and quadratic equations) and a study of functions of various types (polynomial, rational, transcendental). *Either semester*

MA 105 Selected Topics in Mathematics (3 crs.)**

The nature and process of mathematical thinking (inductive, deductive, and algorithmic), as well as applications and results, are the underlying components of this course. Possible topics to be explored include sets, logic, number theory, geometry, graph theory and probability. A selection of three or more such topics will be offered each semester. Satisfies the GER in Mathematics. *Either semester*

MA 107 College Mathematics for Elementary Majors I (3 crs.)

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. *Either semester*

MA 110 Elementary Statistics I (3 crs.)**

Measure of central tendency and variability; elementary probability; binomial, normal and t distributions; hypothesis testing and confidence intervals. *Either semester*

MA 111 Elementary Statistics II (3 crs.)

The continuation of topics in MA 110. Additional work with regression and correlation. Additional work with chi-squared analysis of variance, nonparametric statistics. (*Prerequisite: MA 110*)

MA 120 Introduction to Linear Algebra (3 crs.)**

This course will consider linear congruences, groups, matrices and linear systems. *Fall semester*

MA 130 Discrete Mathematics I (3 crs.)**

This course provides some of the mathematical background necessary for computer science. Topics include combinations and discrete probability, discrete functions and graph theory. *Spring semester*

MA 135-136 Freshman Honors Colloquium (1 cr. each semester)

Freshman Honors Colloquia in Mathematics allow exceptionally able students to explore a challenging topic in small classes under close faculty supervision. Colloquia meet once a week for fifty minutes and culminate in a paper or scientific project which provides the major part of the grade. Open to All-College Honors students and to others at the discretion of the instructor. The minimum enrollment is two and the maximum is twelve. Topics vary from semester to semester. (*Prerequisite: consent of the instructor*) MA 135 *Fall semester*, MA 136 *Spring semester*

* See page 73 for general information regarding course offerings.

** The prerequisite for MA 100, MA 105, MA 110, MA 120, and MA 130 is a mathematics placement test score of level 1.

*** The prerequisite for MA 141 and MA 151 is MA 100 or a mathematics placement test score of level 2.

MA 141 Elements of Calculus I* (3 crs.)**

This course introduces the student to the main concepts, methods, and techniques of differential calculus. Emphasis is on how these arise from problems in several areas, rather than from a rigorous development of the theory. A principal objective of this course is to illustrate how mathematics is used to model physical reality and how such a mathematical model facilitates the solution of problems. This course does not satisfy mathematics major requirement. Satisfies the GER in Mathematics. *Either semester*

MA 142 Elements of Calculus II (3 crs.)

The topics include the integral and its applications as well as multi-variable calculus. Additional topics are selected from: differential equations, Taylor series and probability distributions. This course does not satisfy mathematics major requirements. (*Prerequisite: MA 141*) *Either semester*

MA 151 Calculus I* (4 crs.)**

This course introduces the student to a rigorous development of the differential calculus. Emphasis is on the development of the concepts of calculus as typical of a cohesive mathematical theory. Satisfies the GER in Mathematics. *Fall semester*

MA 152 Calculus II (4 crs.)

This course is an intensive study of the integral and its applications, transcendental functions, conic sections, and additional techniques of integration. (*Prerequisite: MA 151*) *Spring semester*

MA 160 Math at Bridgewater (0 crs.)

Students work in small groups under the guidance of faculty and advanced undergraduates to work on challenging problems which parallel the material in the calculus courses. Goals include enhanced performance in calculus and increased confidence in one's ability to succeed in mathematics. (This course carries no graduation credit and may be repeated.) Graded P/F. (*Prerequisites: must be taken in conjunction with a calculus course—either MA 141, 142, 151, or 152.*)

MA 200 Probability and Statistics (3 crs.)

Permutations and combinations; types of events, conditional probability, elementary probability distributions, elementary cumulative distributions, mathematical expectation, measures of central tendency, variance and standard deviation, normal distributions. Additional statistics topics as time allows. (*Prerequisite: MA 142 or MA 152*)

MA 201 Calculus III (4 crs.)

This course covers infinite sequences and series and multivariable calculus including: partial differentiation, directional derivatives, max/min theory, and multiple integration. (*Prerequisite: MA 152*) *Fall semester*

MA 202 Linear Algebra (4 crs.)

Vector spaces, linear transformations, matrices, systems of linear equations, and determinants. (*Prerequisite: one year of calculus or consent of the department*) *Spring semester*

MA 214 Introduction to Modern Algebra (3 crs.)

Linear congruences, groups, matrices, and linear systems. (*Prerequisite: MA 105 or MA 100 or MA 107 or consent of the department*) Offered alternate years, *Fall semester*

School of Arts & Sciences

MA 286-287 Sophomore Honors Colloquium (1 cr. each semester)
Sophomore Honors Colloquia in Mathematics allow exceptionally able students to explore a challenging topic in small classes under close faculty supervision. Colloquia meet once a week for fifty minutes and culminate in a paper or scientific project which provides the major part of the grade. Open to All-College Honors students and to others at the discretion of the instructor. The minimum enrollment is two and the maximum is twelve. Topics vary from semester to semester. (*Prerequisite: consent of the instructor*) MA 286 Fall semester, MA 287 Spring semester

MA 301 Abstract Algebra I (3 crs.)
Study of relations, functions, and binary operations. 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. (*Prerequisite: consent of the department*) Fall semester

MA 302 Abstract Algebra II (3 crs.)
Group theory, linear groups, rings and ideals, extensions of rings and fields. (*Prerequisite: MA 301*)

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. (*Prerequisite: consent of the department*)

MA 304 Introduction to Topology (3 crs.)
This course is an introduction to point set topology, beginning with metric spaces and proceeding to general topological spaces. Topics include compactness, separation, connectedness, continuity, and associated function spaces. (*Prerequisite: consent of the department*)

MA 316 Differential Equations (3 crs.)
Ordinary differential equations of first and second order, linear differential equations with constant coefficients, the Laplace transformation, applications. (*Prerequisite: MA 201*)

MA 317 Sequences and Series (3 crs.)
Elementary point-set theory, Heine-Borel theorem, Cauchy sequences, convergence tests for infinite series, absolute convergence, power series, Taylor series and Fourier series. (*Prerequisite: MA 201*)

MA 318 Quantitative Methods for Management (3 crs.)
Selected mathematical tools and techniques for analysis of business and economic problems as an aid to decision-making in management. Models and applications related to decision theory, linear programming, inventory, queuing, forecasting and other standard qualitative concepts. (*Prerequisite: MA 142 and MA 110 or equivalent*) Either semester

MA 321 Introduction to Probability (3 crs.)
Permutations and combinations; sample spaces, types of events, conditional probability, Chebyshev's Theorem, Bayes' Theorem, the six (classic) discrete probability distributions, mathematical expectation, the normal distribution. (*Prerequisite: MA 105 or MA 100 or MA 108 or consent of the department*).

MA 325 Foundations of Geometry (3 crs.)
An in-depth study of Euclid's, Hilbert's, etc., axioms for Euclidean geometry, its undefined relations (incidence, congruence, betweenness and parallelism) and functions (measurement). (*Prerequisite: MA 301 or consent of the department*)

MA 326 Projective Geometry (3 crs.)
A synthetic and analytic study of the axioms and properties of the projective plane; the projective group of transformations, its subgeometries and their invariant properties. (*Prerequisite: MA 120 or consent of the department*)

MA 330 Discrete Mathematics II (3 crs.)
Course topics will include formal logic, automata and formal languages, and an introduction to the analysis of algorithms. (*Prerequisite: MA 130 and CS 102*) Either semester

MA 338-339 Honors Tutorial (3 crs. each semester)
Special topics in mathematics. Open to All-College and Departmental Honors students. Three hourly meetings weekly. (*Prerequisite: consent of the department*) MA 338 Fall semester, MA 339 Spring semester

MA 382 Switching Theory (3 crs.)
Boolean algebra and functions. Combinational and sequential logic nets, threshold logic, minimization theory, completeness theorems. Introduction to automata theory. (*Prerequisite: MA 301 and CS 101*)

MA 399 Topics in Advanced Mathematics (3 crs.)
Special topics selected from the general areas of algebra, analysis, and applied mathematics.

MA 401 Introduction to Analysis I (3 crs.)
Logic and proof techniques are followed by basic theorems on the topology of real numbers, compactness, limits, sequences, continuity and differentiability. (*Prerequisite: MA 201*) Spring semester

MA 403 Probability Theory (3 crs.)
All elementary probability topics: permutations and combinations, types of events, conditional probability, Bayes' Theorem and so on. A calculus approach to probability distribution and cumulative distributions, moment and moment generating functions. (*Prerequisite: MA 201*)

MA 408 History of Mathematics (3 crs.)
The development of elementary mathematics from ancient to modern time. (*Prerequisite: consent of the department*)

MA 412 Mathematical Statistics (3 crs.)
A calculus based approach to statistical topics: hypothesis testing, estimations, correlation and regression, analysis of variance, the gamma distribution, the t distribution, the chi-squared distribution, the F distribution and so on. (*Prerequisite: MA 403 or consent of the department*)

MA 415 Numerical Analysis (3 crs.)
Solution of algebraic and transcendental equations, general iteration method, Newton-Raphson method. Approximation of functions and curve fitting, Lagrange interpolation formula, Newton's forward difference method, method of least squares, orthogonality. Numerical integration, Euler-Cauchy technique. (*Prerequisite: MA 201*)

Mathematics & Computer Science

MA 416 Applied Mathematics (3 crs.)

Fourier analysis, solutions of partial differential equations, special functions, and line and surface integrals.

MA 417 Introduction to Complex Analysis (3 crs.)

This course is an introduction to functions of one complex variable. Topics include complex numbers, stereographic projection, analytic and harmonic functions, conformal mapping and Cauchy's Theorem. (*Prerequisite: consent of the department*)

MA/CS 445 Logic Programming (3 crs.)

The study of propositional and first order predicate logic from an axiomatic point of view. Algorithmic methods of theorem proving will be emphasized. (*Prerequisite: junior or senior Mathematics or Computer Science major or equivalent background, and consent of the department*)

MA/CS 460 Introduction to Robotics (3 crs.)

An introduction to the theory of the motion of robot manipulators. The mathematics, programming and control of manipulators will be emphasized. Also examined will be issues of sensing and planning. (*Prerequisite: MA 152, or MA 142 and either MA 202 or MA 120, and CS 102*)

MA 485 Honors Thesis (3 crs.)

This course is open to All-College and Departmental Honors students. One-hour weekly meetings with the thesis director will culminate in an honors thesis. With the consent of the Departmental Honors Committee and the thesis director, this course may be extended into a second semester for three additional credits depending upon the scope of the project. Whether the final version of the thesis qualifies the student to graduate with honors will be determined by the Departmental Honors Committee. *Either semester*

MA 490 Mathematics Seminar (3 crs.)

Topics to be selected from algebra, geometry, and analysis. May be offered as a quarter or semester course. (*Prerequisite: MA 201, MA 202, and MA 301 or consent of the department*)

MA 499 Directed Study in Mathematics (1-3 crs.)

Open to juniors and seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits. (*Prerequisite: consent of the department; formal application required*) *Either semester*

Other Approved Courses:

MA 108 College Mathematics for Elementary Majors II
MA 216 Analytic Geometry
MA 220 Introduction to Calculus
MA 230 Business Mathematics
MA 349 Foundations of Mathematics
MA 354 Introduction to Modern Geometry
MA 402 Introduction to Analysis II
MA 406 Theory of Sets and Elementary Logic
MA 450 Topics in Mathematics for Elementary School Teachers

MA 502 Research (credit to be arranged)

Original research undertaken by the graduate student in his field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

MA 503 Directed Study (credit to be arranged)

Designed for the graduate student who desires to study selected topics in a specific field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

MA 507 Topology (3 crs.)

Elements of point set topology, closed sets and open sets in metric spaces, continuous mappings, connection, separation theorems, and compactness. (*Prerequisite: MA 201 and MA 301 or equivalent*)

MA 508 History of Mathematics (3 crs.)

The development of elementary mathematics from ancient to modern time (*Prerequisite: consent of the department*)

MA 510 Group Theory (3 crs.)

Groups, subgroups, homomorphisms, normal subgroups and quotient groups, generators, normal structure and the Jordan-Hölder Theorem, direct products of groups. (*Prerequisite: MA 301 or equivalent*)

MA 511 Ring Theory (3 crs.)

Examples of rings, ideals and homomorphisms, the Jacobson radical, direct sums, Boolean rings, rings with chain conditions. (*Prerequisite: MA 301 or equivalent*)

MA 518 Topics in Analysis (3 crs.)

Complete ordered fields, approximation theory, including Weierstrass and Bernstein's theorems, continuous, non-differentiable functions, and various topics from complex analysis, time permitting. (*Prerequisite: MA 401 or consent of the department*)

MA 520 Real Analysis (3 crs.)

Sets and functions, sequences and series, metric spaces, Weierstrass Approximation Theorem, Riemann and Lebesgue Integrals, Fourier Series. (*Prerequisite: MA 401*)

MA 522 Complex Analysis (3 crs.)

Analytic functions of a complex variable, differentiation and integration in the complex plane. Cauchy's theorems, infinite series, Laurent expansions, theory of residues. (*Prerequisite: MA 401*)

MA 525 Mathematics in Science (3 crs.)

This course, contains the mathematical background necessary for a variety of science applications. Topics include linear algebra, statistics, discrete mathematics, geometry, calculus and numerical analysis as well as computer software to enhance their application to problem solving in science. (*Prerequisites: High School/Middle School Teacher of Mathematics or Science.*)

MA 537 Applied Research Project (1 cr.)

In this course, students complete an applied research project which integrates theory and practice utilizing educational research format and disciplinary knowledge.

School of Arts & Sciences

Computer Science

CS 100 Programming in BASIC (3 crs.)

Problem solving. Principles of computer programming taught with the aid of the BASIC language. Topics to include the LET, INPUT, READ, IF and FOR statements; arrays; numerical and string functions; other topics as time allows.

CS 101 Computer Science I (3 crs.)

A first course in programming. Introductory concepts of computer organization. Problem solving methods and algorithmic development stressing good programming style and documentation including top down and modular design. This course emphasizes problem solving with programming exercises run on the computer. *Either semester*

CS 102 Computer Science II (3 crs.)

Advanced programming techniques. Introduction to basic aspects of recursion. In core search and sort methods, simple data structures, subroutines and parameters, and algorithmic analysis. Techniques of algorithmic development and programming will be stressed. The emphasis on good programming style and documentation begun in CS 101 will be continued. *Either semester*

CS 105 Computers and Their Applications: An Introduction (3 crs.)

The goal of this course is to provide a student with no previous computer experience the opportunity to become computer literate. The course consists of equal parts of textbook/lecture learning and hands on experience with software such as an operating system, a spread sheet, a word processor, presentation graphics and internet services including electronic mail. The course is especially recommended for the new PC user, but does not fulfill any requirements of the computer science major.

CS 110 Computer Science Foundations (3 crs.)

A pre-programming course which covers the essential features of the computing perspective, and provides an introduction to foundational concepts. The goals are to explore algorithmic and structural abstraction, to familiarize students with topics, applications, and opportunities in the discipline of computer science, and to explore the impact of computing technology in natural and social sciences. There will be opportunity for hands-on exploration of computing concepts. This course does not fulfill computer science major requirements.

CS 135-136 Freshman Honors Colloquium (1 cr. each semester)

Freshman Honors Colloquia in Computer Science allow exceptionally able students to explore a challenging topic in small classes under close faculty supervision. Colloquia meet once a week for fifty minutes and culminate in a paper or scientific project which provides the major part of the grade. Open to All-College Honors students and to others at the discretion of the instructor. The minimum enrollment is two and the maximum is twelve. Topics vary from semester to semester. *(Prerequisite: consent of the instructor) CS 135 Fall semester, CS 136 Spring semester*

CS 200 FORTRAN (3 crs.)

A problem solving course using FORTRAN language. Structured programming techniques will be emphasized. *(Prerequisite: proficiency in at least one programming language) Spring semester*

CS 201 Assembly Language Programming (3 crs.)

A basic course in machine-level programming. Number systems and data representation; arithmetic and logical instructions, indexing, I/O, subroutines; structure and modularity of programs and data at the machine level. Macro definition, recursion. This course will emphasize programming in assembly language. *(Prerequisite: CS 102) Fall semester*

CS 206 Introduction to Computer Organization (3 crs.)

Organization and structure of the major hardware components of computers. Mechanics of information transfer and control within a digital computer system. Fundamentals of logic design. The major emphasis of the course concerns the functions of and communication between the large scale components of a computer system, including properties of I/O devices, controllers, and interrupts. *(Prerequisite: CS 201) Spring semester*

CS 210 COBOL I (3 crs.)

The elements of structured COBOL programming. Topics from among: arithmetic operation statements, report editing, heading lines, comparisons, complex and nested IF statements, single and multiple level control break processing with group indication, one-dimension table processing; subscript, index, table search. *(Prerequisite: knowledge of at least one programming language)*

CS 211 COBOL II (3 crs.)

Continuation of topics of structured COBOL programming. Topics from among: multi-level tables, subprograms, input editing, report writer facility, the sort facility, sequential files, indexed sequential files, and relative files. Creation and file update for sequential and indexed sequential files. *(Prerequisite: CS 210)*

CS 286-287 Sophomore Honors Colloquium (1 cr. each semester)

Sophomore Honors Colloquia in Computer Science allow exceptionally able students to explore a challenging topic in small classes under close faculty supervision. Colloquia meet once a week for fifty minutes and culminate in a paper or scientific project which provides the major part of the grade. Open to All-College Honors students and to others at the discretion of the instructor. The minimum enrollment is two and the maximum is twelve. Topics vary from semester to semester. *(Prerequisite: consent of the instructor) CS 286 Fall semester, CS 287 Spring semester*

CS 330 Data Structures and Algorithms (3 crs.)

Static, semistatic, and dynamic data structures. Techniques for the analysis and design of efficient algorithms which act on data structures. Topics will include arrays, records, stacks, queues, deques, linked lists, trees, graphs, sorting and searching algorithms, algorithms for insertion and deletion, and the analysis and comparison of algorithms. *(Prerequisite: CS 102) Spring semester*

CS 336 File Processing and Business Applications (4 crs.)

Common business programs and techniques for writing these programs are covered. SEQUENTIAL, ISAM, and RELATIVE file organizations are discussed and used in business-oriented programs. *(Prerequisite: CS 201 and CS 330)*

Mathematics & Computer Science

CS 338-339 Honors Tutorial (3 crs. each semester)

Special topics in Computer Science. Open to All-College and Departmental Honors students. Three hourly meetings weekly. (*Prerequisite: consent of the department*) CS 338 Fall semester, CS 339 Spring semester

CS 340 Organization of Programming Languages (3 crs.)

An introduction to the structure of programming languages. Formal specification of syntax and semantics; structure of algorithmic, list processing, string manipulation, data description, and simulation languages; basic data types, operations, statement types, and program structure; run-time representation of program and data. Particular emphasis placed on block-structured languages (ALGOL-68, Pascal, Ada, C) and interpreted languages (APL, LISP, SNOBOL). Programming assignments made in several languages. (*Prerequisite: CS 201, MA 130, CS 330*) Spring semester

CS 342 Object-Oriented Programming (3 crs.)

This course covers the foundation of Object-Oriented programming including data abstraction, inheritance, polymorphism, and genericity. Modern and classical languages such as C++, Java or Smalltalk are introduced. (*Prerequisite: CS 330*)

CS 345 Compiler Construction (3 crs.)

Compiler structure; lexysis, syntax analysis, grammars, description of programming language, automatically constructed recognizers, and error recovery; semantic analysis, semantic languages, semantic processes, optimization techniques, and extendible compilers. Students will write a sample compiler. (*Prerequisites: CS 330 and CS 340*)

CS 350 Operating Systems (3 crs.)

Discussion of the organization and structure of operating systems for various modes of computer use from simple batch systems to time-sharing/multiprocessing systems. Topics include concurrent processing, memory management, deadlock, file systems, scheduling, etc. Programming assignments made in a high-level language with concurrent processing feature. (*Prerequisite: CS 206, CS 330*) Fall semester

CS 395 Computer Science Seminar (3 crs.)

Interdisciplinary uses of computers. Problems arising through the increasing use of computers in our society. Seminar will be project oriented and students will present their work to the class for discussion and criticism. (*Prerequisite: a minimum of 24 approved hours in computer science and consent of the department*)

CS 399 Topics in Theoretical Computer Science (3 crs.)

Topics to be selected from: artificial intelligence, automata theory, computational complexity theory, mathematical linguistics, programming language theory, and other theoretical computer science topics. (*Prerequisite: consent of the instructor*)

CS 405 Introduction to Database Systems (3 crs.)

Physical data organization. The hierarchical, network, and relational data models. Design theory for relational data base; data dependencies, normal forms, and preventing loss of information. Query optimization. Integrity and security of data bases. Students implement applications on a relational data base system. (*Prerequisites: MA 130 and CS 330*)

CS 410 Database Applications (3 crs.)

The role of a database in an MIS environment is studied. Team analysis and implementation of a database project will be a major course component. This course does not fulfill computer science major requirements.

CS 430 Computer Networks (3 crs.)

Introduction to data transmission, digital multiplexing, and data switching, characteristics of transmission media, terminals, modems, and communication processes; design of error control, line control, and information flow control procedures; study of message and packet switching networks; protocols and software in packet switching systems; and modelling techniques for networks. (*Prerequisite: CS 330*)

CS 435 Analysis of Algorithms (3 crs.)

General overview of algorithms. Algorithmic techniques needed in problem solving. Relative efficiency of algorithms. Topics will include efficient algorithms for data manipulation, graphical analysis, rapid evaluation of algebraic functions and matrix operations, and $N \log N$ bound in sorting algorithms. (*Prerequisite: CS 330*)

CS 436 Computer Graphics (3 crs.)

This course includes an introduction to hardware, algorithms, and software of computer graphics. Topics include line generators, affine transformations, line and polygon clipping, splines, interactive techniques, menus, orthographic and perspective projections, solid modeling, hidden surface removal, lighting models and shading. (*Prerequisites: CS 330 and either MA 120 or MA 202*)

CS 442 Object-Oriented Software Engineering (3 crs.)

A project course in the development of a large-scale software system using OO methodologies. The primary process involves discovering classes and objects which model both the application domain and the solution space, identifying the semantics of these classes and objects and establishing relationships among them, and implementing the classes and objects using appropriate data structures and algorithms. This primary process is controlled by a well-defined development framework with the following steps: (1) establishing core requirements, (2) providing a model of the system's behavior, (3) creating an architecture for the implementation, (4) evolving the implementation through successive iterations, and (5) maintaining the system. (*Prerequisite: CS 342*)

CS/MA 445 Logic Programming (3 crs.)

The study of propositional and first order predicate logic from an axiomatic point of view. Algorithmic methods of theorem proving will be emphasized. (*Prerequisite: junior or senior mathematics or computer science major or equivalent background, and consent of the department*)

CS/MA 460 Introduction to Robotics (3 crs.)

An introduction to the theory of the motion of robot manipulators. The mathematics, programming and control of manipulators will be emphasized. Also examined will be issues of sensing and planning. (*Prerequisite: CS 102 and either MA 152 or MA 142, and MA 202 or MA 120*)

CS 470 Introduction to Artificial Intelligence (3 crs.)

This course introduces students to the basic concepts and techniques

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of artificial intelligence. Emphasis is given to representation and the associated data structures. Students will also be introduced to an AI language such as LISP. (*Prerequisite: 24 credits in approved computer science courses for computer science majors*)

CS 485 Honors Thesis (3 crs.)

This course is open to All-College and Departmental Honors students. One-hour weekly meetings with the thesis director will culminate in an honors thesis. With the consent of the Departmental Honors Committee and the thesis director this course may be extended into a second semester for three additional credits depending upon the scope of the project. Whether the final version of the thesis qualifies the student to graduate with honors will be determined by the Departmental Honors Committee. *Either semester*

CS 498 Internship in Computer Science (3 crs.)

Students will work for an employer in the computer science field for a minimum of 10 hours/week during one full semester. A member of the department will serve as adviser and evaluator of all work projects. This course can be taken only once for credit. (*Prerequisite: A minimum of 24 approved hours in computer science and permission of the department; formal application required*)

CS 499 Directed Study in Computer Science (1-3 crs.)

Open to juniors and seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits. (*Prerequisite: consent of the department; formal application required*)

Other Approved Course:

CS 280 Fundamentals of Microprocessors and Microcomputers

CS 502 Research (credit to be arranged)

Original research undertaken by the graduate student in his field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

CS 503 Directed Study (credit to be arranged)

Designed for the graduate student who desires to study selected topics in a specific field. For details consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

CS 510 Topics in Programming Languages (3 crs.)

This course investigates programming language development from designer's, user's and implementor's point of view. Topics include formal syntax and semantics, language system, extensible languages, and control structures. There is also a survey of intralanguage features, covering ALGOL-60, ALGOL-68, Ada, Pascal, LISP, SNOBOL-4 APL, SIMULA-67, CLU, MODULA, and others. (*Prerequisite: consent of the instructor*)

CS 520 Operating Systems Principles (3 crs.)

This course examines design principles such as optimal scheduling; file systems, system integrity and security, as well as the mathematical analysis of selected aspects of operating system design. Includes: queuing theory, disk scheduling, storage management and the working set model. Design and implementation of an operating system nucleus is also studied. (*Prerequisite: consent of the instructor*)

CS 525 Design and Construction of Compilers (3 crs.)

Topics include lexical and syntactic analysis; code generation; error detection and correction; optimization techniques; models of code generators; incremental and interactive compiling. Students design and implement a compiler (*Prerequisite: consent of the instructor*)

CS 530 Software Engineering (3 crs.)

Topics include construction of reliable software, software tools, software testing methodologies, structured design, structured programming, software characteristics and quality and formal proofs of program correctness. Chief programmer teams and structure walk-throughs will be employed. (*Prerequisite: consent of the instructor*)

CS 536 Graphics (3 crs.)

This course examines typical graphics systems, both hardware and software. Topics include design of low level software support for raster and vector displays, three-D surface and solids modeling, hidden line and hidden surface algorithms. Shading, shadowing, reflection, refraction, and surface texturing. (*Prerequisite: consent of the instructor*)

CS 540 Automata, Computability, and Formal Languages (3 crs.)

Topics include finite automata and regular languages, context-free languages, Turing machines and their variants, partial recursive functions and grammars, Church's thesis, undecidable problems, complexity of algorithms, and completeness. (*Prerequisite: consent of the instructor*)

CS 545 Analysis of Algorithms (3 crs.)

This course deals with techniques in the analysis of algorithms. Topics to be chosen from among: dynamic programming, search and traverse techniques, backtracking, numerical techniques, NP-hard and NP-complete problems, approximation algorithms, and other topics in the analysis and design of algorithms. (*Prerequisite: consent of the instructor*)

CS 550 Topics in Discrete Mathematics (3 crs.)

Topics include context-free languages, graph theory, combinatorics, optimization theory, linear programming, error correcting codes. (*Prerequisite: consent of the instructor*)

CS 560 Artificial Intelligence (3 crs.)

This course is an introduction to LISP or another AI programming language. Topics are chosen from: pattern recognition, theorem proving, learning, cognitive science, vision. It also presents introduction to the basic techniques of AI such as: heuristic search, semantic nets, production systems, frames, planning, and other AI topics. (*Prerequisite: consent of the instructor*)

CS 562 Expert Systems (3 crs.)

Architectures currently used in building expert systems are studied. The main current systems are surveyed along with expert system environments and tools. (*Prerequisite: CS 560*)

CS 565 Logic Programming (3 crs.)

This course is an introduction to first order predicate logic as a problem solving tool. Logic programming languages such as PROLOG are studied along with applications of logic programming to mathematics fields, natural language processing, and law. (*Prerequisite: consent of the instructor*)

Mathematics & Computer Science

CS 570 Robotics (3 crs.)

This is a project-oriented course in robotics. Topics are chosen from: manipulator motion and control, motion planning, legged-motion, vision, touch sensing, grasping, programming languages for robots, automated factory design. *(Prerequisite: consent of the instructor)*

CS 575 Natural Language Processing (3 crs.)

This is an historical survey of question-answering systems. Topics include analysis and computational representation of syntactic and semantic structures for artificial intelligence application using English; current text systems; simulation of brief systems and other aspects of cognition; use of natural language systems; generation of text or speech. *(Prerequisite: CS 560)*

CS 580 Database Systems (3 crs.)

Topics include relational, hierarchical and network data models; design theory for relational databases and query optimization; classification of data models, data languages; concurrency, integrity, privacy; modeling and measurement of access strategies; dedicated processors, information retrieval, real time applications. *(Prerequisite: consent of the instructor)*

CS 582 Distributed Database Systems (3 crs.)

The problems inherent in distributed data bases on a network of computer systems are studied including file allocation, directory systems, deadlock detection and prevention, synchronization, query optimization, and fault tolerance. *(Prerequisite: CS 580)*

CS 590 Computer Architecture (3 crs.)

This course is an introduction to the internal structure of digital computers including: design of gates, flipflops, registers and memories to perform operations on numerical and other data represented in binary form; computer system analysis and design; organizational dependence on computations to be performed; theoretical aspects of parallel and pipeline computation. *(Prerequisite: consent of the instructor)*

CS 594 Computer Networks (3 crs.)

This course is an introduction to data transmission, digital multiplexing, and data switching. Topics include characteristics of transmission media, terminals, modems, and communication processes; design of error control, line control, and information flow control procedures; study of message and packet switching networks; protocols and software in packet switching systems; and modelling techniques for networks. *(Prerequisite: consent of the instructor)*

CS 596 Topics in Computer Science (3 crs.)

Topics are chosen from: program verification, formal semantics, formal language theory, concurrent programming, complexity or algorithms, programming language theory, graphics, and other computer science topics. *(Prerequisite: consent of the instructor)*

CS 599 Computer Science Seminar (3 crs.)

A project oriented seminar in computer science. Projects will be individually assigned. *(Prerequisite: minimum of 12 credits in 500-level science course work)*

CP 510 Computer Software Foundations (3 crs.)

Designed to prepare students who have an undergraduate degree in a field other than computer science to enter the M.S. in Computer Science program. Covers essential aspects of computer software development. Software development methodology, problem solving and structured programming in a high-level language. Program style and documentation. Fundamental data structures, searching, and sorting algorithms.

CP 520 Computer Systems Foundations (3 crs.)

Designed to prepare students who have an undergraduate degree in a field other than computer science to enter the M.S. in Computer Science program. This course is an introduction to computer systems, their organization and low-level interface. It covers number systems, von Neumann machines, instruction sets and machine code, data representation, assemblers and assembly language programming, compilers and system software, external and internal processor organization, memory, I/O organization and devices. It goes into a detailed study of RISC processor architecture. *(Prerequisite: Working knowledge of C or C++)*

CP 530 Computer Theory Foundations (3 crs.)

Designed to prepare students who have an undergraduate degree in a field other than computer science to enter the M.S. in Computer Science program. An introduction to the theory of computer science for students entering the Master's Program without an undergraduate degree in computer science. Beginning with a survey of discrete mathematics (primarily combinatorics and graph theory). This course will introduce topics in the Theory of Computation as well as in Algorithms and Complexity Theory.

Department of Music

Faculty

Acting

Chairperson: Associate Professor David Garcia

Professors: Maxine Asselin, Henry Santos,
Jean Kreiling

Assistant

Professors: Nancy Paxcia-Bibbons, Steven Young



Undergraduate Programs

Bachelor of Arts

The Music Department offers a major within the framework of a Bachelor of Arts degree. By providing a solid foundation in music history, theory, and performance within a liberal arts context, the program prepares students to pursue a variety of academic and professional interests, including graduate study in music and Massachusetts Teacher Certification.

In addition, the Music Department offers a minor for the student pursuing a B.A. or B.S. degree, as well as courses that satisfy the General Education Requirements. Private instruction is given in piano, guitar, voice and orchestral and band instruments; a performance study fee is charged for these lessons. Performing organizations are also available for both singers and instrumentalists.

A student wishing to major or minor in music should consult with the department chairperson as early as possible. Certain courses may be waived pending consultation with the Music Department chairperson and/or completion of proficiency tests.

Music Major

A student majoring in music must earn 36 credits by combining required courses and electives. In addition, a piano proficiency examination which addresses basic competencies must be passed to graduate with the B.A. in Music. Specific musical examples and guidelines are available from the music department chair. The Proficiency may be met by successful completion of MU 240. The Department of Music will permit its majors to use only one passing grade below C- to satisfy requirements in the music major (including both the required core courses and electives). An additional grade below C- will require the student to take another music course, chosen in consultation with his or her adviser. The required core courses are designed to develop competence in theory, history, musicianship, and performance:

MU 171 Music Theory I
MU 172 Music Theory II
MU 261 Music History I
MU 262 Music History II
MU 270 Sight-singing and Ear-training I
MU 372 Form and Analysis of Music

5 credits in ensembles:

MU 112 Wind Ensemble
MU 113 Jazz Band
MU 115 Instrumental Ensemble

MU 118 Chorale
 MU 119 Vocal Ensemble
 MU 183 String Ensemble

4 credits in performance studies:

MU 121, 221, 321, 421 Brass
 MU 122, 222, 322, 422 Percussion
 MU 123, 223, 323, 423 Strings (Violin, Viola)
 MU 124, 224, 324, 424 Woodwinds
 MU 125, 225, 325, 425 Classical Guitar
 MU 126, 226, 326, 426 Strings (Cello, Bass)
 MU 131, 231, 331, 431 Voice (Singing)
 MU 141, 241, 341, 441 Piano

Elective credits must be chosen from among the following:

MU 230 Voice Class II
 MU 251 Conducting
 MU 255 Music Materials for Elementary Teachers
 MU 274 Creating Music
 MU 355 Creative Activities in Elementary School Music
 MU 364 Music of the Classical and Romantic Periods
 MU 366 American Music of the Twentieth Century
 MU 367 Music by Women Composers
 MU 370 Sight-singing and Ear-training II
 MU 371 Counterpoint
 MU 373 Composition I
 MU 374 Composition II
 MU 399 Special Topics in Music
 MU 473 Composition III
 MU 474 Composition IV
 MU 453 Music for Early Childhood
 MU 499 Directed Study in Music

Double Major with Elementary Education, Early Childhood Education or Special Education

Students may choose a double major in Music and Elementary Education, Early Childhood Education or Special Education for certification purposes. Appropriate advising materials with suggested course sequences are available.

Music Minor

Required courses:

MU 140 Class Piano I
 MU 171 Music Theory I
 MU 261 Music History I
 or
 MU 262 Music History II

MU 270 Sight-singing and Ear-training I
 or
 MU 370 Sight-singing and Ear-training II

3 credits in ensembles (MU 112, 113, 115, 118, 119, 183)

Six additional credits from among the following.

Performance Studies: (maximum 4 crs.)

MU 121, 221, 321, 421 Brass
 MU 122, 222, 322, 422 Percussion
 MU 123, 223, 323, 423 Strings (Violin, Viola)
 MU 124, 224, 324, 424 Woodwinds
 MU 125, 225, 325, 425 Classical Guitar
 MU 126, 226, 326, 426 Strings (Cello, Bass)
 MU 131, 231, 331, 431 Voice (Singing)
 MU 141, 241, 341, 441 Piano
 MU 130 Voice Class I

or

MU 230 Voice Class II
 MU 162 Music in African Culture
 MU 166 Survey of American Jazz
 MU 167 The Music of Black Americans
 MU 172 Music Theory II
 MU 240 Class Piano II
 MU 261 Music History I
 or
 MU 262 Music History II
 MU 274 Creating Music
 MU 364 Music of the Classical and Romantic Periods
 MU 366 American Music of the Twentieth Century
 MU 367 Music by Women Composers
 MU 370 Sight-singing and Ear-training II
 MU 371 Counterpoint
 MU 372 Form and Analysis of Music
 MU 399 Special Topics in Music
 MU 499 Directed Study in Music

Graduate Programs

Post Baccalaureate Program: Provisional Certification with Advanced Standing - Teacher of Music

In conjunction with the School of Education and Allied Studies and the Graduate School, the Music Department offers a post-baccalaureate program which qualifies a music graduate to obtain Massachusetts provisional certification with advanced standing as a teacher of music at the Pre-K-9 or 5-12 grade level. The program requirements are as follows:

- Undergraduate degree, Bachelor of Arts or appropriate music major as determined by program coordinator.

School of Arts & Sciences

- **Post Baccalaureate certification courses (9 hours from three categories – for students who do not meet this requirement in their undergraduate background)**
 - a. MU 375 Orchestration and Arranging (3 cr.)

 - b. one of the following:
 - MU 355 Creative Activities in Elementary School Music (3 cr.)
 - MU 388 Instrumental Techniques (3 cr.)
 - MU 483 Choral Techniques (3 cr.)

 - c. one of the following:
 - MU 456 Methods in Music Education (3 cr.)
 - MU 457 School Music Programming (3 cr.)

- **School of Education and Allied Studies requirement**
(*including field experience)
 - 5-12 Program*
 - HS 220 Teaching in High School (3 cr.)*
 - HS 230 Educational Psychology (3 cr.)*
 - MS 440 Middle School Strategies (3 cr.)*
 - HS 360 Aims & Philosophy of High School Education (3 cr.)
 - HS 370 Evaluating Teaching & Learning in High School (3 cr.)
 - HS 413 Strategies for Teaching Music Grades 5-12 (3 cr.)*
 - HS 490 Student Teaching Practicum, High School (12 cr.)*
 - N-9 Program*
 - HS 220 Principles of Teaching (3 cr.)*
 - HS 230 Educational Psychology (3 cr.)*
 - EE 312 Educational Evaluation (3 cr.)
 - MS 440 Middle School Strategies (3 cr.)*
 - SE 202 Regular Education Initiative: Mainstreaming the Special Needs Learner into the Regular Classroom (3 cr.)
 - EE 313 Teaching Music in Pre-K and Elementary Schools (3 cr.)*
 - EE 494 Supervised Teaching in the Elementary Schools-MUSIC (12 cr.)*

For additional information concerning this program, contact the music department

Course Offerings*

‡MU 111 Marching Band (1 cr.)

The marching band is open to all students. The band presents exciting contemporary music at home football games and other selected events. Band camp meets a week before classes to learn drills, distribute uniforms, and administer other musical and organizational matters. Band rehearses two days per week during fall semester.

‡MU 112 Wind Ensemble (1 cr.)

The wind ensemble is open to any student who plays a woodwind, brass, or percussion instrument. The wind ensemble performs significant literature which is selected to stimulate both the musicians and the audience. The course may be repeated for credit. *Either semester*

‡MU 113 Jazz Band (1 cr.)

The jazz band is open by audition on the first Thursday of the fall semester and limited to twenty musicians who wish to perform in the big band style. Performances provide the student with an opportunity to apply musical skills acquired through practice and rehearsal. The course may be repeated for credit. *Either semester*

‡MU 115 Instrumental Ensemble (1 cr.)

A mixed group of instrumentalists that studies and performs appropriate works. Ensembles formed as interest indicates. Course may be repeated for credit. *Either semester*

‡MU 118 Chorale (1 cr.)

A group of mixed voices which studies and performs compositions representative of various styles, periods, and cultures. Performances presented throughout the academic year often include major works with orchestral accompaniment. The course may be repeated for credit. (*Prerequisite: consent of the instructor*) *Either semester*

‡MU 119 Vocal Ensemble (1 cr.)

A select group of mixed voices which studies and performs chamber vocal music representative of various styles, periods and cultures. This a cappella ensemble represents the college both in the United States and abroad. The course may be repeated for credit. (*Prerequisite: consent of the instructor*) *Either semester*

MU 120 Class Guitar I (Classical Guitar) (3 crs.)

This course is an introduction to the fundamentals of classical guitar playing for those with or without prior experience. Through the performance of classical music, folk songs, American spirituals and pop melodies, the beginning guitar student will learn to read music, grasp basic theory, understand terminology and identify the different stylistic periods in music. Satisfies the GER in Artistic Modes of Expression. (studio course). *Either semester*.

‡ From MU 111, 112, 113, 115, 118, 119 and 183, 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.

Exception: All one credit co-curricular and physical education activity courses that are required for officially enrolled and graduating students in an approved major, concentration or minor may be counted towards graduation.

* See page 73 for general information regarding course offerings.

MU 121, 221, 321, 421, Performance Studies I, II, III, IV (Private Lessons - Brass) (1 cr.)

The sequence provides private instruction for those students who wish to improve their proficiency in playing brass instruments. The material is selected according to the ability of the student. The lessons are for a one hour period per week. The course may be repeated for credit. Additional fee required. (*Prerequisite: consent of the instructor; placement level determined by the Instructor*) *Either semester*

MU 122, 222, 322, 422 Performance Studies I, II, III, IV
(Private Lessons - Percussion) (1 cr.)

The sequence provides private instruction for those students who wish to improve their proficiency in playing percussion instruments. The material is selected according to the ability of the student. The lessons are for a one hour period per week. The course may be repeated for credit. Additional fee required. (*Prerequisite: consent of the instructor; placement level determined by the Instructor*) *Either semester*

MU 123, 223, 323, 423 Performance Studies I, II, III, IV
(Private Lessons - Violin, Viola) (1 cr.)

The sequence provides private instruction for those students who wish to improve their proficiency in playing upper string instruments. The material is selected according to the ability of the student. The lessons are for a one hour period per week. The course may be repeated for credit. Additional fee required. (*Prerequisite: consent of the instructor; placement level determined by the Instructor*) *Either semester*

MU 124, 224, 324, 424 Performance Studies I, II, III, IV
(Private Lessons - Woodwinds) (1 cr.)

The sequence provides private instruction for those students who wish to improve their proficiency in playing woodwind instruments. The material is selected according to the ability of the student. The lessons are for a one hour period per week. The course may be repeated for credit. Additional fee required. (*Prerequisite: consent of the instructor; placement level determined by the Instructor*) *Either semester*

MU 125, 225, 325, 425 Performance Studies I, II, III, IV
(Private Lessons - Classical Guitar) (1 cr.)

The sequence provides private instruction for those students who wish to improve their proficiency in playing the instrument. The material is selected according to the ability of the student. The lessons are for a one hour period per week. The course may be repeated for credit. Additional fee required. (*Prerequisite: consent of the instructor; placement level determined by Instructor*) *Either semester*

MU 126, 226, 326, 426 Performance Studies I, II, III, IV
(Private Lessons - Cello, Bass) (1 cr.)

The sequence provides private instruction for those students who wish to improve their proficiency in playing lower string instruments. The material is selected according to the ability of the student. The lessons are for a one hour period per week. The course may be repeated for credit. Additional fee required. (*Prerequisite: consent of the instructor; placement level determined by the Instructor*) *Either semester*

MU 130 Voice Class I (3 crs.)

Through the performance of songs of different nationalities, the student gains knowledge of basic vocal technique, general musicianship and terminology. Satisfies the GER in Artistic Modes of Expression (studio course). *Either semester*

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MU 131, 231, 331, 431 Performance Studies I, II, III, IV**(Private Lessons - Voice - Singing) (1 cr.)**

The sequence provides private instruction for those students who wish to improve their ability in singing. The material is selected according to the ability of the student. The lessons are for a one hour period per week. The course may be repeated for credit. Additional fee required. (Prerequisite: consent of the instructor; placement level determined by the Instructor) Either semester

MU 140 Class Piano I (3 crs.)

Through the performance of compositions by master composers and arrangements of symphonic literature, folk songs, spirituals, seasonal and patriotic songs, the beginning piano student learns basic piano technique, elementary theory, general musicianship, terminology and the different stylistic periods in music. Satisfies the GER in Artistic Modes of Expression (studio course). Either semester

MU 141, 241, 341, 441 Performance Studies I, II, III, IV**(Private Lessons - Piano) (1 cr.)**

The sequence provides private instruction for those students who wish to improve their ability at the keyboard. The material is selected according to the ability of the student. The lessons are for a one hour period per week. The course may be repeated for credit. Additional fee required. (Prerequisite: consent of the instructor; placement level determined by the Instructor) Either semester

MU 160 Music: A Listening Approach (3 crs.)

This course, designed for students with no previous musical training, explores art music of the Western world and gives the beginner the knowledge and skills necessary for more informed listening. Music surveyed may include symphonies, concerti, songs, operas, and other works, from various historical periods. Satisfies the GER in Artistic Modes of Expression. Either semester

MU 162 Music in African Culture (3 crs.)

This course surveys the musical traditions of Africa with respect to their historical, social and cultural backgrounds. Musical organizations, instrumental and vocal techniques and important aspects of style are treated. Satisfies the GER in Non-Western Civilization. Either semester

MU 163 Music of the Non-Western World (3 crs.)

This course is an introductory survey of selected Non-Western musical traditions including those of Asia, Latin America, Oceania and the Middle East. Topics include song and dance styles, musical instruments, social context and function of performance genres, musical structures, traditional vs. modern styles, and aesthetic principles. Satisfies the GER in Non-Western Civilization.

‡ From MU 111, 112, 113, 115, 118, 119 and 183, 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.

Exception: All one credit co-curricular and physical education activity courses that are required for officially enrolled and graduating students in an approved major, concentration or minor may be counted towards graduation.

MU 166 Survey of American Jazz (3 crs.)

This course traces the development of Jazz from 1890 to the present, noting its origins, its place in mainstream American music and its influence on other American and European musical styles. Satisfies the GER in Artistic Modes of Expression. Either semester

MU 167 The Music of Black Americans (3 crs.)

This course surveys the history of black American music. The contribution of the African-American style to the European-based music tradition will be stressed. Satisfies the GER in Artistic Modes of Expression. Fall semester

MU 170 Music Fundamentals (3 crs.)

A course designed for beginners who wish to develop music literacy. Pitch, rhythm, chords, and major and minor scales are among the topics studied. Evaluations are based on both written work and musical performance. Satisfies the GER in Artistic Modes of Expression. Either semester

MU 171 Music Theory I (3 crs.)

Beginning harmony and counterpoint: writing in small forms and chorale harmonizations, written exercises, ear training and keyboard work. (Prerequisite: MU 140, MU 170, or consent of the instructor) Either semester

MU 172 Music Theory II (3 crs.)

A continuing technical course in the study of 18th and 19th century harmony. Topics studied include seventh chords through chords of the augmented sixth, figured bass, analysis, harmonization of melody, and counterpoint. (Prerequisite: MU 171 or consent of the instructor) Either semester

‡MU 183 String Ensemble (1 cr.)

The String Ensemble is open by audition to all students of the college. The group performs standard and contemporary chamber music selected to showcase the strengths of the ensemble. The course may be repeated for credit. Either semester

MU 230 Voice Class II (3 crs.)

The continuation of Voice Class I, dealing with further development of singing technique and including class performances of different vocal styles represented by literature from various periods. (Prerequisite: MU 130 or consent of the instructor) Spring semester

MU 232 Diction for Singers (3 crs.)

This course instructs singers to produce clear, intelligible diction while maintaining a melodic line and correct intonation in standard English, Italian/Latin, French, and German vocal repertory. The foreign language being used by the Choral or chamber singers may be included as an area of study. (Prerequisite: MU 130 or consent of the instructor)

MU 240 Class Piano II (3 crs.)

The continuation of Class Piano I presents a detailed study of works from the Baroque to the Contemporary periods. The student gains facility in the art of phrasing, use of dynamics and attention to tempos. Satisfies the GER in Artistic Modes of Expression (studio course). Prerequisite: MU 140 or consent of Instructor

MU 251 Conducting (3 crs.)

Designed for the beginning choral or instrumental conductor, this course includes basic conducting patterns, score reading and analy-

sis, baton and rehearsal techniques. (*Prerequisite: MU 170 or consent of the instructor*)

MU 255 Music Materials for Elementary Teachers (3 crs.)

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. (*Prerequisite: MU 150, MU 170, or consent of the instructor*) *Either semester*

MU 261 Music History I (3 crs.)

An historical and technical survey of music of the Middle Ages through the Baroque period, with emphasis on the changing musical language, the various social and cultural roles of composition and performance, and the history of musical styles. (*Prerequisite: MU 171 or consent of instructor*) *Fall semester*

MU 262 Music History II (3 crs.)

An historical and technical survey of music of the Classical Era through the present day. Continues Music: History I, with emphasis on the changing musical language, the various social and cultural roles of composition and performance, and the history of musical styles. (*Prerequisite: MU 171 or consent of instructor*) *Spring semester*

MU 270 Sight-singing and Ear-training I (3 crs.)

This course raises the level of competency in music reading, dictation of musical examples and singing music at first sight through graded solfege and ear training exercises. (*Prerequisite: MU 140 or 170 or consent of the instructor*) *Fall semester*

MU 274 Creating Music (3 crs.)

An exploration and organization of the many sounds around us to create music. Skills in performance and knowledge of music fundamentals are utilized and continually developed. All creative endeavors are performed, discussed and evaluated in class. (*Prerequisite: MU 170 or consent of the instructor*) *Spring semester*

MU 355 Creative Activities in Elementary School Music (3 crs.)

Practical experience offered in free and directed rhythmic responses, use of melody, percussion and chording instruments, use of the piano, and singing activities. (*Prerequisite: MU 150, MU 170, or consent of the instructor*)

MU 363 Music of Bach, Handel, and Vivaldi (3 crs.)

This in-depth study of music by Bach, Handel and Vivaldi focuses on representative works from several genres, including cantata, oratorio, concerto, suite, and sonata. (*Prerequisite: MU 261*)

MU 364 Music of the Classical and Romantic Periods (3 crs.)

An in-depth study of music of the Classical and Romantic eras, focusing on the history and styles of the symphony, sonata, song, string quartet, opera, and other genres. (*Prerequisite: MU 262*)

MU 366 American Music of the Twentieth Century (3 crs.)

This course examines music by twentieth century American composers, taking a historical and analytical approach to genres such as symphony, chamber music, song, opera, musical theatre and jazz. Works by Ives, Copland, Gershwin, Bernstein and others will be studied. (*Prerequisite: MU 262 or consent of instructor*) *Spring semester*

MU 367 Music by Women Composers (3 crs.)

This course surveys Western art music composed by women, with attention to sociological and cultural issues as well as analysis of music from several periods and genres. (*Prerequisite: MU 261 or MU 262*)

MU 370 Sight-singing and Ear-training II (3 crs.)

The continuation of MU 270. Students achieve a high level of fluency by reading graded advanced unison, two-, three-, and four-part studies, as well as combined rhythmic and melodic dictation, and one- and two-part rhythmic exercises for aural proficiency. (*Prerequisite: MU 270 or consent of the instructor*)

MU 371 Counterpoint (3 crs.)

An analytical and practical exploration of melodic and contrapuntal techniques, relying upon extensive student exercises in composition and singing; emphasis on styles of the sixteenth through the eighteenth centuries. (*Prerequisite: MU 172*)

MU 372 Form and Analysis of Music (3 crs.)

Advanced analysis of the harmony, rhythm, melody, texture, and structure of selected works of music. (*Prerequisite: MU 172*)

MU 373, 374, 473, 474 Composition I, II, III, IV (3 crs. each)

A technical and practical exploration of the materials and methods of musical composition centered around the students' own creative exercises. (*Prerequisite: MU 172*)

MU 375 Orchestration and Arranging (3 crs.)

Students will learn principles of score mechanics, vocal and instrumental ranges and capabilities, and apply that knowledge in musical assignments for a variety of ensembles. (*Prerequisites: MU 172 and MU 262*)

MU 388 Instrumental Techniques (3 crs.)

Students will learn assembly, maintenance, performance and pedagogy for the four main families of orchestral instruments (Woodwinds, brass, percussion and strings). (*Prerequisite: MU 251 or consent of instructor*)

MU 399 Special Topics in Music (3 crs.)

A topic of special interest to faculty and/or students will be explored; emphasis may be on history, theory, or performance. This course may be taken more than once.

MU 440 Advanced Keyboard Skills (3 crs.)

This course teaches advanced keyboard musicianship skills that lead to facility in the harmonization of melodies, transposition, score reading, figured bass realization and lead sheet chord symbols interpretation. (*Prerequisite: MU 240*)

MU 453 Music for Early Childhood (3 crs.)

Designed for elementary education students, teachers and those interested in primary grades. The study of music as it relates to the developmental process of children of nursery, kindergarten and primary grades. Program planning, activities and materials which help promote musical growth in children and music skills for the teacher. Special attention is given to singing, listening and use of recorded materials. (*Prerequisite: consent of the instructor*)

*School of Arts & Sciences***MU 456 Methods in Music Education (3 crs.)**

This course will examine the instructional approaches of Emile Jaques-Dalcroze, Zoltan Kodaly, Carl Orff, and Shinichi Suzuki and the use of each in school music settings. Emphasis will be placed upon the instructional use of each with respect to singing, moving, instrument playing, listening, and creative experiences. (*Prerequisites: MU 355*)

MU 457 School Music Programming (3 crs.)

Students will learn principles of managing, organizing and administering a school music program. Course topics range from recruiting to cooperating with parents organizations. Students will network with local school directors and learn evaluation and assessment procedures. (*Prerequisite: MU 251*)

MU 459 Foundations of Music Education (3 crs.)

This course will examine the fundamental philosophical, historical, sociological, and psychological issues affecting the teaching and learning of music in school settings. Emphasis will be placed upon the purposes and functions of music in American schools in relation to efficient and effective planning of curriculum and instruction. Through the consideration of musical, educational, historical, psychological, and other issues, this course will integrate the student's musical studies with his general education coursework. (*Prerequisites: MU 355*)

MU 483 Choral Techniques (3 crs.)

This course will fulfill one of the subject matter knowledge areas necessary for provisional/full certification. Subjects will include advanced conducting and rehearsal techniques, a study of style and interpretation, and the development of the choral sound. Planning organizing and evaluating the choral program and its participants will also be part of the curriculum. (*Prerequisites: MU 251 and MU 440 or consent of instructor*)

MU 499 Directed Study in Music (1-3 crs.)

Open to juniors and seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits. (*Prerequisite: consent of the department*) Either semester

Other Approved Courses:

MU 117 Women's Glee Club
MU 150 Classroom Music
MU 320 Class Recorder
MU 368 Folk Music of Canada
MU 413 Advanced Choral Conducting

MU 502 Research (credit to be arranged)

Original research undertaken by the graduate student in his field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

MU 503 Directed Study (credit to be arranged)

Designed for the graduate student who desires to study selected topics in a specific field. For details consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

MU 552 Seminar in Music Education Problems (3 crs.)

After current problems in the music education field have been recognized and analyzed, an attempt will be made to arrive at reasonable solutions which are educationally and musically sound. (*Prerequisite: MU 251 or consent of the instructor*)

MU 554 Research in Music Education (3 crs.)

Sources, methods and types of research used in scholarly inquiry, including techniques used in planning and conducting a survey.

Other Approved Courses:

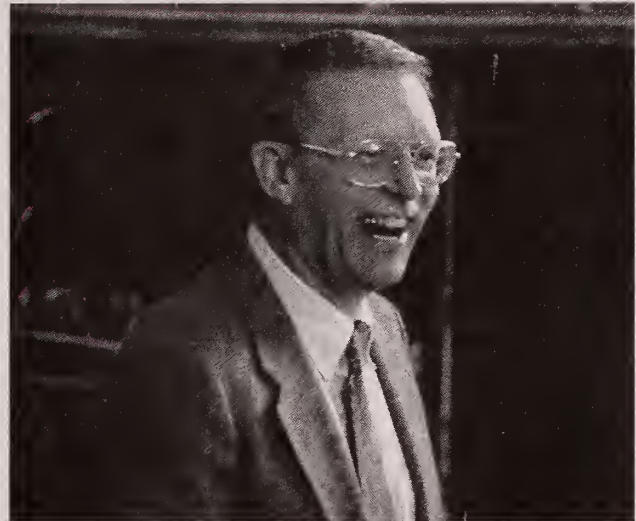
MU 511 Advanced Choral Literature
MU 512 Contemporary Trends in Choral Literature
MU 561 Music and Communication

Department of Philosophy

Faculty

Chairperson: Professor Steven Sanders

Professors: David Cheney, Robert Fitzgibbons,
Edward James, Francine Quaglio



Undergraduate Programs

Philosophical inquiry aims at clear, logical, critical thinking about a variety of perennial human concerns. These include questions about values, the nature of knowledge and truth, the meaning of life, the understanding of experience, the possibility of religious knowledge, and many others. The department offers courses in the main problems of philosophy, the history of philosophy, and the methods of philosophy as a mode of critical thinking.

Bachelor of Arts

The department offers a major in Philosophy which provides a solid foundation for entry into diverse careers and/or prepares the student for graduate work in philosophy and related disciplines. The nature of philosophical inquiry and its methods of critical thinking are particularly suited to the fields of law, education, and public policy.

Philosophy Major

A minimum of ten philosophy courses (30 credits). A grade of "C" or higher is required in all philosophy course work contributing to the major. Majors intending to pursue a graduate degree in philosophy should develop proficiency in either French or German.

Satisfactory completion of at least one course in each of the following core areas - logic, epistemology, ethics, and philosophy of mind - is required and will normally be

satisfied by the following courses:

- PL 401 Symbolic Logic
- PL 402 Theories of Knowledge
- PL 403 Theories of Ethics
- PL 404 Theories of Mind

Satisfactory completion of at least one of the following courses in the history of philosophy is required:

- PL 301 Plato and Aristotle
- PL 302 Descartes, Hume, and Kant
- PL 303 Hegel and Continental Thought
- PL 304 Contemporary Anglo-American Philosophers

Applied Ethics Concentration

Fulfill requirements for philosophy major with the following distribution.

At least four of the following:

- PL 202 Practical Reasoning
- PL 203 Happiness and the Meaning of Life
- PL 204 Sex and Personal Relations
- PL 205 Medical Ethics
- PL 206 Media Ethics
- PL 210 Liberation Ethics
- PL 322 Philosophy of Law

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PL 330 Amoralism, Egoism, and Altruism
PL 334 Free Will, Determinism, and Responsibility

Philosophy Minor

For a minor in philosophy, a student must complete six philosophy courses (18 credits). Interested students should contact the chairperson in order to discuss an individual program relevant to their academic majors.

Double Majors

Interested students, particularly those majoring in education, should contact the chairperson in order to discuss an individual program.

Graduate Programs

The department does not currently offer a graduate program. However, philosophy courses at the 400 level, with the exception of PL 499, may be taken for graduate credit with the consent of the department of Philosophy.

Course Offerings*

Only one course from the following may be taken for credit:

- PL 101 Reasoning and Value
- PL 102 Reasoning and Human Nature
- PL 103 Reasoning and Politics
- PL 104 Reasoning and Religion
- PL 105 Reasoning and Science

PL 101 Reasoning and Value (3 crs.)

This course introduces the skills of critical reasoning by developing a general understanding of argumentation and by examining key philosophical issues concerning morality, such as: What is morality? Are there any universal values or principles which all persons should recognize? Are there any rational ways to resolve moral disagreements? Satisfies the GER in Philosophy *Either semester*

PL 102 Reasoning and Human Nature (3 crs.)

This course introduces the skills of critical reasoning by developing a general understanding of argumentation and by examining key philosophical issues concerning human nature, such as: What is a person? Is there a human nature? Are human acts free or determined? Satisfies the GER in Philosophy. *Either Semester*

PL 103 Reasoning and Politics (3 crs.)

This course introduces the skills of critical reasoning by developing a general understanding of argumentation and by examining key philosophical issues concerning politics, such as: What, if anything, is the legitimate purpose of government? What is the best form of government? To what extent, if any, are we obligated to obey the law? What are rights and how do we get them? Satisfies the GER in Philosophy. *Either semester*

PL 104 Reasoning and Religion (3 crs.)

This course introduces the skills of critical reasoning by developing a general understanding of argumentation and by examining key philosophical issues concerning religion, such as: Can God's existence be proven or disproven? Can the existence of evil be an obstacle to religious belief? Is there evidence for immortality? Can an atheist be moral? Satisfies the GER in Philosophy. *Either semester*

PL 105 Reasoning and Science (3 crs.)

This course introduces the skills of critical reasoning by developing a general understanding of argumentation and by examining key philosophical issues concerning science, such as: Is there a scientific method? Are science and faith mutually exclusive? Is there "a scientific view" of persons? Is science value-free? Satisfies the GER in Philosophy. *Either semester*

PL 135-136 Freshman Honors Colloquium (1 cr. each semester)

Freshman Honors Colloquia in Philosophy allow exceptionally able students to explore a challenging topic in small classes under close faculty supervision. Colloquia meet once a week for fifty minutes and culminate in a paper or scientific project which provides the major part of the grade. Open to All-College Honors students and to others at the discretion of the instructor. The minimum enrollment is two and the maximum is twelve. Topics vary from semester to semester. (*Prerequisite: consent of the instructor*) PL 135 fall semester, PL 136 spring semester

* See page 73 for general information regarding course offerings.

All philosophy courses above the 100 level will normally have a prerequisite of one 100 level course in philosophy.

PL 201 Rational Thinking (3 crs.)

This course develops skills of rational thinking, including a working understanding of meaning, ambiguity, and vagueness; the nature of argument; deductive and probabilistic reasoning; and fallacies. *Offered alternate years*

PL 202 Practical Reasoning (3 crs.)

This basic skills course is designed to help the student in the areas of organizing ideas and reasoning about matters of practical interest, including strategies for dealing with disagreements; planning for goals and the future; resolving interpersonal conflicts of interest. Emphasis will be placed on in-class case analysis and problem solving involving editorials, advertising, statistics, cause-and-effect reasoning, and emotive language. *Offered alternate years*

PL 203 Happiness and the Meaning of Life (3 crs.)

This course provides a framework for thinking about happiness and life's meaning by considering such questions as: What is happiness and how can it be attained? Is happiness the main, or only, goal in living a good life? Does life have a meaning? Is living morally a condition of having a good life? How are happiness and life's meaning affected by emotion, desire, reason, pleasure, suffering and death? *Offered alternate years*

PL 204 Sex and Personal Relations (3 crs.)

This course examines central topics in the philosophy of sex including questions such as: What is the philosophical significance of sex? Can we justify the distinction between good and bad sex? Moral and immoral sex? Normal and perverted sex? Is the language of sex sexist? What is love and how is it related to reason and emotion? Can friendship be distinguished from love? Does prostitution or pornography degrade persons? *Offered alternate years*

PL 205 Medical Ethics (3 crs.)

This course explores issues of life and death including questions such as: Is abortion ever justified? Is euthanasia ever justified? Does the patient ever have the right to refuse life-saving treatment? Does a doctor have the right to withhold information from patients? Do the parents or the society have the right to determine what is the best treatment, if any, for a child? Is suicide ever justifiable? On what basis should limited medical resources be allocated? *Offered alternate years*

PL 206 Media Ethics (3 crs.)

This course explores ethical issues arising out of the relations between art, communications, and business, including questions such as: What is media bias and is it unavoidable? Can there be such a thing as objective reporting? Do advertising, packaging, and product design make informed choice more likely? Is there an ethics for advertising? Should the media ever be censored? Do artists, journalists, and others in the media have specific rights and responsibilities? *Offered alternate years*

PL 210 Liberation Ethics (3 crs.)

This course considers the ethics of liberation as it relates primarily to "third-world" peoples, drawing upon such thinkers as Gandhi, Mao, Weil, Fanon, King, and Mandela. Emphasis will be placed on such

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issues as the meaning of "third-world," the legitimacy of revolution, rebellion, civil disobedience or reparation, and the status of disenfranchised groups, including women and African-Americans. Satisfies the GER in Non-Western Civilization. *Offered alternate years*

PL 212 Philosophies of India (3 crs.)

This course examines some of the central ideas and issues found in past and contemporary Vedanta, Yoga, and Buddhism, especially as they illuminate Asian/Western misunderstanding and relationships. Emphasis will be placed on concepts of moral value, human nature, salvation, harmony, and pluralism. Satisfies the GER in Non-Western Civilization. *Offered alternate years*

PL 213 Philosophies of China and Japan (3 crs.)

This course examines some of the central ideas and issues found in past and contemporary Confucianism, Taoism, Buddhism and Shintoism, especially as they illuminate Asian/Western misunderstandings and relationships. Emphasis will be placed on concepts of moral value, human nature, salvation, harmony, and pluralism. Satisfies the GER in Non-Western Civilization. *Offered alternate years*

PL 286-287 Sophomore Honors Colloquium (1 cr. each semester)

Sophomore Honors Colloquia in Philosophy allow exceptionally able students to explore a challenging topic in small classes under close faculty supervision. Colloquia meet once a week for fifty minutes and culminate in a paper or scientific project which provides the major part of the grade. Open to All-College Honors students and to others at the discretion of the instructor. The minimum enrollment is two and the maximum is twelve. Topics vary from semester to semester. (*Prerequisite: consent of the instructor*) PL 286 fall semester, PL 287 spring semester

PL 301 Plato and Aristotle (3 crs.)

This course examines selected works of Plato and Aristotle on such issues as the nature of philosophy, the method of inquiry, the ground and possibility of knowledge, the reality of form and psyche, deliberation and human good, and the ideal society. *Offered alternate years*

PL 302 Descartes, Hume, and Kant (3 crs.)

This course examines selected works of Descartes, Hume, and Kant on such issues as the possibility of knowledge, the scope and limits of reason, the nature of the self and the relation between mind and body, the nature of space, time, and causality, the status of theological and metaphysical claims, and the foundations of morality. *Offered alternate years*

PL 303 Hegel and Continental Thought (3 crs.)

This course examines Hegel's systematic philosophy, including his accounts of dialectical progression; forms of consciousness, culture and conceptual framework; freedom and rationality; individual and collective life; followed by consideration of selected works of modern European thinkers responding to Hegel, such as Marx, Nietzsche, and Heidegger. *Offered alternate years*

PL 304 Contemporary Anglo-American Philosophers (3 crs.)

This course examines selected works of philosophers such as Pierce, James, Dewey, Whitehead, Russell, Moore, Austin, Wittgenstein, and Popper on such topics as the extent and limits of rationality, the structure of empirical knowledge, the relations between language and the world and between thought and action, and the nature of meaning, truth, and justification. *Offered alternate years*

PL 322 Philosophy of Law (3 crs.)

This course examines law and justice, the structure of legal reasoning, the nature and justification of the adversary system, lawyers' roles and ethics, and questions such as: Should confidentiality, zealous advocacy, plea bargaining, or the insanity defense be abolished? Is punishment morally defensible? What is the basis for legal interference with individual liberty? Do lawyers have an obligation to defend clients they find repulsive? *Offered alternate years*

PL 325 Philosophy of Art (3 crs.)

This course examines philosophical questions arising in connection with the identification, interpretation, and evaluation of art and its creation, and questions such as: What is art? Is there a valid way to distinguish art from non-art and good art from bad art? Are there ways to establish the meaning of a work of art, or is all interpretation subjective? Do artists have moral responsibilities as artists? Should the government subsidize art? *Offered alternate years*

PL 326 Philosophy of Science (3 crs.)

This course begins with an historical survey of the main issues and theories of the concept of science, followed by contemporary views on such questions as: Is the "scientific method" a myth? Is science superior to poetry, art, and religion in giving us truth? Do the terms of science, like "electron," "gene," and "the unconscious" refer to real things? Can we study persons like we study rocks? Can there be feminist ways of looking at science? *Offered alternate years*

PL 328 Philosophy of Religion (3 crs.)

This course critically examines the nature and justification of religious claims, including discussion of: What are the grounds for belief or disbelief in God's existence? Is religious discourse meaningful? Do faith and reason conflict? Is belief in immortality intelligible and/or defensible? Is religious knowledge possible? Are revelation and religious experience reliable sources of truth? Is it rational to believe in miracles? Is atheism a religion? *Offered alternate years*

PL 330 Amoralism, Egoism, and Altruism (3 crs.)

This course discusses amoralism, egoism, and altruism as alternative life plans, raising such questions as: What is self-interest? Is being an egoist compatible with bonds of trust, friendship, and love? Can we ever be true altruists? Is morality more rational than immorality? Are our ultimate life plans and commitments defensible? Why be moral? *Offered alternate years*

PL 332 Philosophy and Feminist Thought (3 crs.)

This course examines issues in contemporary feminist thought as they have emerged from Western philosophy, such as: Are there distinctively feminist accounts of human nature, society, and persons? Do interpretations of rationality, thought, and experience reflect gender experiences? Do positions on moral issues reflect gender differences? Do feminist theories of gender, culture, and power have social and political applications? Is feminism anti-male? *Offered alternate years*

PL 334 Free Will, Determinism, and Responsibility (3 crs.)

This course examines main topics and problems on the philosophy of action and agency, including: What is free will and do we have it? Are our motives, desires, and intentions determined? When, if at all, are we responsible for what we do? What implications does free will (or

Philosophy

its absence) have for autonomy and legal liability, as in the insanity defense? *Offered alternate years*

PL 338-339 Honors Tutorial (3 crs. each semester)

Special topics in Philosophy. Open to All-College and Departmental Honors students. Three hourly meetings weekly. (*Prerequisite: consent of the department*) *PL 338 fall semester, PL 339 spring semester*

PL 350 Philosophy Seminar (3 crs.)

This course studies a particular philosopher and/or selected philosophical problems. Topics vary; course may be repeated. (*Prerequisite: consent of the instructor*) *Offered alternate years*

PL 401 Symbolic Logic (3 crs.)

This course explores the ideas and techniques of symbolic logic that are of use in understanding, developing, and appraising natural deductive arguments. *Offered alternate years*

PL 402 Theories of Knowledge (3 crs.)

This course begins with an historical survey of the main issues and theories of the concept of knowledge, followed by contemporary views on such questions as: Is rationality possible? Does knowledge need a foundation? Is knowledge the same as truth? Is perception theory-laden? Does evidence reflect gender, power, or culture? *Offered alternate years*

PL 403 Theories of Ethics (3 crs.)

This course begins with an historical survey of the main issues and theories of ethics, followed by contemporary views on such questions as: Does morality have a rational basis? Are there moral truths? Are some persons or cultures better than others? Should moral life be understood in terms of some key concept-like integrity, rights, duties, happiness, or the good life? *Offered alternate years*

PL 404 Theories of Mind (3 crs.)

This course begins with an historical survey of the main issues and theories of the concept of mind, followed by contemporary views on such questions as: What is consciousness? Is it identical to brain states? Could the mind exist apart from the body? Can we know other minds? Could we construct a machine that could think and feel? What is a person and what constitutes personal identity? What is the nature of reason, desire, emotion, and will? *Offered alternate years*

PL 485 Honors Thesis (3 crs.)

This course is open to All-College and Departmental Honors students. One-hour weekly meetings with the thesis director will culminate in an honors thesis. With the consent of the Departmental Honors Committee and the thesis director, this course may be extended into a second semester for three additional credits depending upon the scope of the project. Whether the final version of the thesis qualifies the student to graduate with honors will be determined by the Departmental Honors Committee. *Either semester*

PL 499 Directed Study in Philosophy (1-3 crs.)

This course is open to juniors and seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits. (*Prerequisite: consent of the department, formal application required*) *Either semester*

Other Approved Course:

PL 405 Philosophy of Language

PL 502 Research (credit to be arranged)

Original research undertaken by the graduate student in his field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

PL 503 Directed Study (credit to be arranged)

Designed for the graduate student who desires to study selected topics in a specific field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

Department of Physics

Faculty

Chairperson: Associate Professor Jeffrey Williams

Professors: Richard Calusdian,
Professor George Weygand

**Assistant
Professor:** Matthew Kohler



The Department of Physics strives to provide students with the necessary skills and knowledge to pursue successful careers in research, teaching, or further study in graduate programs. Programs in physics culminating in the degrees of Bachelor of Arts, Bachelor of Science, and Master of Arts in Teaching are offered.

Undergraduate Programs

Bachelor of Arts/Bachelor of Science

The Department of Physics offers a program leading to the Bachelor's degree in Physics. This program is sufficiently flexible to prepare a student for graduate school, industry, or secondary school teaching. Each student can plan a physics program with the help of a faculty adviser to meet specific future needs.

Students who are contemplating majoring in this department should be aware of the sequential nature of the course offerings. It is of prime importance that such students consult with the chairperson of the department as soon as possible so that they can complete degree requirements in four years.

The department participates in a number of interdisciplinary programs for students preparing for careers in medicine, dentistry, or oceanography. Additional information on these programs may be found under *Interdisciplinary and Pre-Professional Programs*.

Physics Major

PH 243-244 General Physics I-II
PH 375 Wave Theory
or
PH 435 Optics
PH 401 Modern Physics
PH 402 Quantum Mechanics
PH 403 Mathematical Physics
PH 414 Experimental Physics
PH 438 Electricity and Magnetism
PH 439 Mechanics
CH 141-142 Chemical Principles I-II
MA 151-152 Calculus I-II
MA 201 Calculus III
MA 316 Differential Equations
or their equivalent

Physics Minor

18 credits in physics acceptable for the physics major.

Physical Science Minor

18 credits in Physics and Chemistry.

Computer Electronics Concentration

PH 243-244 General Physics I-II
 PH 401 Modern Physics
 PH 403 Mathematical Physics
 PH 430 Computer Technology
 PH 432 Electronic Circuits
 PH 438 Electricity and Magnetism
 PH 442 Digital Electronics I
 PH 444 Digital Electronics II

Plus one of the following:

PH 406 Solid State Electronics
 PH 435 Optics or PH 436 Optical Electronics

Cognate requirements:

MA 151-152 Calculus I-II
 MA 201 Calculus III
 MA 316 Differential Equations
 CH 141-142 Chemical Principles I-II
 At least six credits in computer science

Computer Electronics Minor

PH 243 General Physics I
 PH 244 General Physics II
 PH 442 Digital Electronics I
 CH/PH 260 Microprocessors-Microcomputer Technology
 CH 350 Introduction to Laboratory Automation

Geophysics Minor

A minor is jointly offered with the Department of Earth Sciences and Geography. For further information contact the department chairpersons.

Double Major with Elementary Education, Early Childhood Education or Special Education

Students may choose a double major in Physics and Elementary Education, Early Childhood Education or Special Education for certification purposes. Please contact the Department of Physics and the appropriate education department for further information.

Minor in Secondary (High School) or Middle School Education

- Students may minor either in Secondary (High School, grades 9-12) or Middle School (grades 5-9) Education. Successful completion of either of these programs will lead to Massachusetts Provisional with Advanced Standing Teacher Certification. Please refer to the Department of Secondary Education and Professional Programs for specific certification and program requirements.

Graduate Programs**Master of Arts in Teaching
Clinical Master's Program
Physics****Certification Program (Standard Level)**

This master's degree program is designed for persons who have provisional certification with advanced standing and are seeking standard certification in the area of physics (9-12, 5-9). (Students needing provisional certification with advanced standing should refer in this catalog to the program entitled "Post Baccalaureate Program: Provisional Certification with Advanced Standing for Secondary (Subject Areas: 9-12) and Middle Level (Subject Areas: 5-9) Teachers" under the *Department of Secondary Education and Professional Programs*.)

For information regarding application procedures and admission standards, students should consult the *Graduate School* section of this catalog.

Students seeking standard certification should consult the section of this catalog entitled *School of Education and Allied Studies* for information pertaining to professional certification, admission to and retention in Professional Education, as well as important institutional deadlines.

GP 501 Graduate Program Planning

All accepted students must enroll under the direction of their adviser in GP 501 Graduate Program Planning, which is described under "Graduate Adviser and Program Planning" in the *Graduate School* section of this catalog. As part of their program, students must satisfactorily complete the following curriculum:

Education Core

ED 530 Research Methods
 ED 531 The Curriculum Experience
 ED 532 Critical Issues - Educators and Society
 ED 533 Effective Practices in Human Development & Learning
 ED 534 Clinical Experience (6 crs.)
 ED 537 Applied Research Project (2 crs.)

(Course descriptions for ED 530-537 are provided in the *School of Education and Allied Studies* section of this catalog.)

Discipline Area Requirements

M.A.T. students are expected to have, or acquire in addition to degree requirements, an appropriate background of college level courses, to be determined by the department.

School of Arts & Sciences

Required Courses:

Select two of the following courses: (6 credits)

- PH 510 Physics for Teachers: A Modern Review
- PH 593 Special Topics in Secondary School Science
- or
- PH 594 Special Topics in Junior High Science

Select three of the following courses: (9 credits)

- PH 581 The Physics of the Environment
- PH 583 Physics of the Atom
- PH 584 Physics of the Nucleus and Elementary Particles
- PH 585 Physics of the Solid State
- PH 587 Radiation Physics
- PH 588 Radiation Physics II
- PH 589 Physics of the Solar System
- PH 591 Special Topics in Modern Physics
- PH 592 Research Problems in Physics

PH 537 Applied Research Project (1 cr.)

Each student will be required to pass a comprehensive examination prior to being eligible to receive the Master of Arts in Teaching degree.

Students who successfully complete the above curriculum are eligible for standard certification.

Master of Arts in Teaching

Physics

Physical Sciences

Program for Teachers with Standard Certification

This program is designed for secondary and middle level subject area teachers who have standard certification.

All accepted students must enroll under the direction of their adviser in GP 501 Graduate Program Planning, which is described under "Graduate Adviser and Program Planning" in the *Graduate School* section of this catalog. As part of their program, students must satisfactorily complete the following curriculum:

- GP 501 Graduate Program Planning
- ED 530 Research Methods
- ED 531 The Curriculum Experience
- ED 532 Critical Issues - Educators and Society
- ED 533 Effective Practices in Human Development & Learning

(Course descriptions for ED 530 - 533 are provided in the *School of Education and Allied Studies* section of this catalog.)

Discipline Electives

M.A.T. students are expected to have, or acquire in addition to degree requirements, an appropriate background of college level courses, to be determined by the department.

A minimum of 18 approved graduate credits in the academic area of concentration, which meet the academic and professional objectives of the student, is required.

Successful completion of a comprehensive examination is also required.

Course Offerings***PH 100 Physics in the Natural World (3 crs.)**

This course considers the key scientific concepts underlying physics and how they relate to the environment. Among the topics to be considered are mechanics, heat, electricity, magnetism, optics and sound, modern physics and an historical overview of the physical sciences. This course is suitable for majors other than those in the Physical and Biological Sciences seeking basic knowledge of physics. Two hours of lecture and one two-hour laboratory period weekly. Satisfies the GER in Physical and Biological Sciences. *Either semester*

PH 102 Modern Physics for the Humanist (3 crs.)

The principal theme of this course is 20th century attempts to understand the basic laws of nature and their relationship to us. Among the topics to be considered are classical physics, the theory of relativity, atomic structure and quantum theory along with their implications for philosophy and technology. Satisfies the GER in Physical and Biological Sciences (non-lab course). *Either semester*

PH 180 Energy and its Social Uses (3 crs.)

The basic physical laws of energy are presented. Environmental consequences of solar, fossil, hydro and nuclear energy generation are analyzed. Satisfies the GER in Physical and Biological Sciences (non-lab course). *Either semester*

PH 181 Elements of Physics I (3 crs.)

The language and methods of physics as illustrated in mechanics, heat and sound are studied. Applications of fundamental principles of physics to all branches of physical science are examined. Two hours of lecture and one two-hour laboratory period weekly. Satisfies the GER in Physical and Biological Sciences. *Fall semester*

PH 182 Elements of Physics II (3 crs.)

Principles of electricity, magnetism, optics and modern physics are studied. Two hours of lecture and one two-hour laboratory period weekly. *(Prerequisite: PH 181) Spring semester*

PH 243 General Physics I (4 crs.)

This is a calculus-based beginning course in physics which emphasizes the study of kinematics, dynamics and heat. Three hours of lecture and one three-hour laboratory weekly. Satisfies the GER in Physical and Biological Sciences. *(Prerequisite: MA 151 or equivalent) Fall semester*

PH 244 General Physics II (4 crs.)

This course is a calculus-based study of electricity, magnetism and light. Three hours of lecture and one three-hour laboratory period weekly. *(Prerequisite: PH 243) Spring semester*

PH/CH 260 Microprocessors - Microcomputer Technology (4 crs.)

A study of the electrical families, components and processes used to build the components of microprocessors and microcomputers. An examination of timing cycles for microprocessors with limitations on

the digital devices used and the various means in which these components can be assembled in the construction of a microcomputer. Comparison of the various microcomputers available. *(Prerequisite: a college-level course in PH or consent of the instructor) Fall semester*

PH 401 Modern Physics (3 crs.)

Theory of relativity; atomic structure; quantum theory; nuclear physics and elementary particles. *(Prerequisite: PH 243, PH 244) Fall semester (formerly PH 387)*

PH 402 Quantum Mechanics (3 crs.)

Wave nature of matter; the Schrodinger equation; application of the Schrodinger equation to the electron, the hydrogen atom, multi-electron atoms and radiation. *(Prerequisite: PH 403) Fall semester*

PH 403 Mathematical Physics (3 crs.)

Vector analysis; matrices, linear differential equations; Sturm-Liouville theory; Fourier series; orthogonal functions; Laplace transform. *(Prerequisite: PH 243, PH 244, MA 201) Offered alternate years, spring semester*

PH 405 Nuclear Physics (3 crs.)

Nuclear forces, nuclear models, nuclear reactions and radioactivity, and elementary particles. *(Prerequisite: PH 401) Offered alternate years*

PH 406 Solid State Electronics (3 crs.)

The basic principles of operation of the various types of diodes, transistors, SCRs, solar cells, field effect devices, and integrated circuits. *(Prerequisite: PH 192 or PH 244) Spring semester (formerly PH 398)*

PH 409 Theory of Relativity (3 crs.)

The Lorentz Transformation and application to mechanics and electrodynamics; the general Theory of Relativity and application to astrophysics. *(Prerequisite: PH 401) Offered alternate years*

PH 414 Experimental Physics (3 crs.)

An introduction to advanced experimental techniques of physics. Students will perform historically ground-breaking experiments using modern equipment. There will be one lecture and two two-hour laboratory sessions per week. *(Prerequisite: PH 244, PH 401 previous or current)*

PH 430 Computer Technology (3 crs.)

Discrete parts and gates for computer systems, memories, computer architecture, microprocessors and microprocessor applications, microcomputers. *(Prerequisite: PH 444) Fall semester*

PH 432 Electronic Circuits (4 crs.)

Circuit analysis: Matrix methods, transform methods, amplifiers, feedback theory, operational amplifiers, integrated circuits, analog computers. Three hours of lecture and one three-hour laboratory weekly. *(Prerequisite: PH 182 or PH 244 or consent of the department) Offered alternate years, fall semester (formerly PH 376)*

PH 433 Thermal Physics (3 crs.)

Thermodynamics; kinetic theory; and statistical mechanics. *(Prerequisite: PH 243, PH 244) Offered alternate years, spring semester (formerly PH 381)*

* See page 73 for general information regarding course offerings.

School of Arts & Sciences

PH 435 Optics (3 crs.)

Study of geometrical and physical optics. (*Prerequisite: PH 244*) Fall semester (formerly PH 385)

PH 436 Optical Electronics (3 crs.)

Optical principles throughout the electromagnetic spectrum, sources, displays, light-reactive devices, fiber optics, EPR, NMR. (*Prerequisite: PH 442*) Spring semester (formerly PH 386)

PH 438 Electricity and Magnetism (4 crs.)

The theory and applications of the fundamental equations of electromagnetism. Three hours of lecture and one three-hour laboratory period weekly. (*Prerequisite: PH 244*) Fall semester (formerly PH 388)

PH 439 Mechanics (3 crs.)

Vector treatment of forces, torques; dynamics of particles and rigid bodies; work and energy; momentum; small oscillation theory; Lagrangian and Hamiltonian formulation of dynamics. (*Prerequisite: PH 243*) Spring semester (formerly PH 389)

PH 442 Digital Electronics I (4 crs.)

Elements of digital electronics: Boolean algebra of switching circuits, binary logic circuits, digital computer logic circuits. Three hours of lecture and one three-hour laboratory period weekly. (*Prerequisite: college-level course in physics or consent of the instructor*) Fall semester (formerly PH 392)

PH 444 Digital Electronics II (4 crs.)

Counter analysis and design, sequential circuits, digital circuit fault analysis, analog-digital conversion, microprocessors. Three hours of lecture and one three-hour laboratory period weekly. (*Prerequisite: PH 442*) Spring semester (formerly PH 394)

PH 498 Internship in Physics (3-15 crs.)

Laboratory experience in industrial or government laboratories, or academic laboratories at other institutions. (*Prerequisite: Consent of Department; formal application required*) Either semester

PH 499 Directed Study in Physics (1-3 crs.)

Open to juniors and seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits. (*Prerequisite: consent of the department, formal application required*) Either semester

Other Approved Courses:

PH 104 Physical Science for the Elementary School I - Physical Aspects
PH 110 Physics for Nurses
PH 191 Engineering Physics I
PH 192 Engineering Physics II
PH 193 Engineering Physics III
PH 200 Survey of Physics
PH 270 Transportation for the Future—Physical Implications
PH 291 Engineering Mechanics I
PH 292 Engineering Mechanics II
PH 301 Physics of Sports
PH 372 Biophysics, Microscopic Aspects
PH 375 Wave Theory
PH 391 Solid State Physics

PH 404 Methods of Mathematical Physics

PH 408 Astrophysics

PH 410 Electrodynamics

PH 411 Procedures in Experimental Physics I

PH 412 Procedures in Experimental Physics II

PH 502 Research (credit to be arranged)

Original research undertaken by the graduate student in his field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

PH 503 Directed Study (credit to be arranged)

Designed for the graduate student who desires to study selected topics in a specific field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

PH/CH 525 Problem Solving in Chemistry and Physics (3 crs.)

Skills needed in the solving of problems in chemistry and physics will be developed. Emphasis will be on the application of mathematics to problem solving. Topics will be chosen from the sciences to illustrate the application of algebra, geometry, linear algebra and calculus to physics and chemistry. Methods of treating data obtained in the laboratory will be developed. (*Prerequisites: High School/Middle School Teacher of Mathematics or Science*)

PH 537 Applied Research Project (1 cr.)

In this course, students complete an applied research project which integrates theory and practice utilizing educational research format and disciplinary knowledge.

PH 550 Physics for Teachers—A Modern Review (3 crs.)

A modern review of topics in physics for the junior high teacher. Among the topics to be covered are: Newton's Laws, generation and application of energy, electricity and magnetism, optics, sound, relativity, physics of the electron and nucleus. Emphasis will be placed on recent developments. (*Prerequisite: Science teaching experience at the pre-baccalaureate level and consent of Instructor*)

PH 581 The Physics of the Environment (3 crs.)

The generation and utilization of energy and their environmental impact. Energy sources included are solar, wind, hydroelectric, nuclear, geothermal, fusion. (*Prerequisite: consent of the instructor*)

PH 583 Physics of the Atom (3 crs.)

A study of the atomic view of matter and radiation. Topics included are: the kinetic theory of gases, theory of the electron, Bohr's theory of the atom, many electron atoms, theory of molecules and spectra, and the theory of relativity. (*Prerequisite: consent of the instructor*)

PH 584 Physics of the Nucleus and Elementary Particles (3 crs.)

A study of the nucleus and relationship of elementary particles. The topics included are: nuclear structure, radioactivity, nuclear reactions, nuclear accelerators, conservation laws, symmetry and invariance principles, unified view of the elementary particles, and cosmic rays. (*Prerequisite: consent of the instructor*)

PH 585 Physics of the Solid State (3 crs.)

A unified treatment of the basic models used to describe solid state

phenomena. Topics included are: crystal structure, electric, magnetic, and thermal properties of matter, transport properties of metals and semi-conductors; band theory; super conductivity. (*Prerequisite: consent of the instructor*)

PH 587 Radiation Physics I (3 crs.)

Wave propagation and the electromagnetic spectrum, interference, polarization, coherence theory, electromagnetic theory. (*Prerequisite: consent of the instructor*)

PH 588 Radiation Physics II (3 crs.)

Blackbody radiation, photo-electric effect, the Bohr Model of the Atom and Atomic Spectra, the Schrodinger equation and applications to radiation problems. (*Prerequisite: consent of the instructor*)

PH 589 Physics of the Solar System (3 crs.)

Physical properties and motion of the members of the solar system and interplanetary medium. (*Prerequisite: consent of the instructor*)

PH 591 Special Topics in Modern Physics (3 crs.)

Topics to be selected from the areas of the Theory of Relativity, Quantum Mechanics, Solid State and Nuclear Physics. (*Prerequisite: PH 401*)

PH 592 Research Problems in Physics (credit to be arranged)

Special projects for advanced students desiring individual instruction in the methods of research in Physics. (*Prerequisite: Permission of the department*)

PH 593 Special Topics in Secondary School Science (3 crs.)

An introduction to the environmental and energy-related physical science topics presented in the Secondary School Science curricula. Special emphasis will be placed upon the science content found in these curricula materials. Lectures, seminars, laboratory work, workshops and model classes will be included in this course. (*Prerequisite: consent of the instructor*)

PH 594 Special Topics in Junior High Science I (3 crs.)

An introduction to junior high science programs. Special emphasis will be placed upon the science content found in these curricula materials. Lectures, seminars, laboratory work and model classes will be included in this course. (*Prerequisite: consent of the instructor*)

PH 595 Special Topics in Junior High Science II (3 crs.)

A continuation of the course PH 594, in which the science content of junior high science programs is studied and evaluated.

PH 597 Special Topics in Elementary Science (3 crs.)

An introduction to elementary school science materials. Special emphasis will be placed upon the study of the science content included in these materials. Lectures, laboratory work, seminars, workshops, and model classes will be included in this course. (*Prerequisite: consent of the instructor*)

Department of Political Science

Faculty

Chairperson: Professor Michael Kryzanek

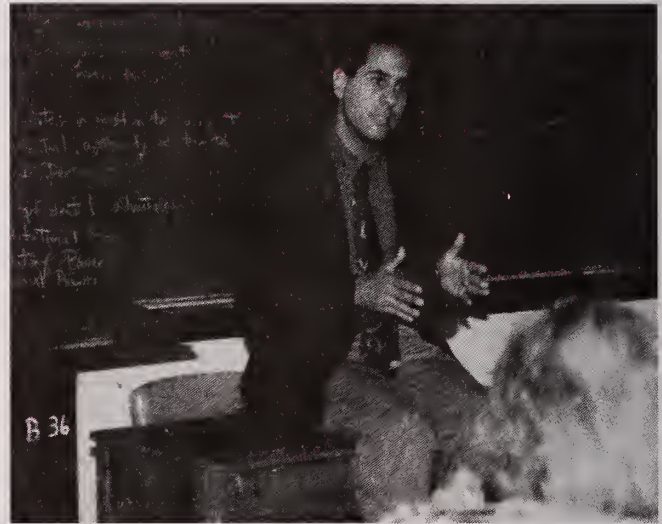
Professor: Pauline Harrington

Associate

Professors: Victor DeSantis, Shaheen Mozaffar,
George Serra

Assistant

Professors: Erna Gelles, Christopher Kirkey



Undergraduate Programs

The Political Science Program

The Department of Political Science offers four programs of study in political science: a political science major (no concentration), a political science major (American Politics Concentration), a political science major (International Affairs Concentration), and a political science major (Legal Studies Concentration).

The political science major (no concentration) offers students an understanding of governmental structures and political processes in their own country and in other parts of the world. This program provides a foundation for graduate work in political science, public administration, and international affairs, for the study of law, and for professional careers in teaching and in the public and private sectors.

The political science major (International Affairs Concentration) offers students an understanding of the structures and processes that govern political and economic relations among global actors. This program provides a foundation for graduate work in international politics, international business and economics, international law and organization, and for a professional career in these fields.

The political science major (Legal Studies Concentration) offers students a background for professional careers in the field of law. This program provides a foundation for law school and for paralegal studies.

The political science major (American Politics concentration) offers students a broad understanding of American politics. The concentration is designed to provide strong undergraduate scientific education in preparation for entry into advanced degree programs and professional careers in public service, private institutions, and political organizations in the United States.

Bachelor of Arts

The Department of Political Science offers the Bachelor of Arts Degree in Political Science.

Political Science Core Courses

All political science majors, regardless of their concentration, *must complete* 21 credits by taking the following core courses:

- PO 172 Introduction to American Government
- PO 260 International Relations
- PO 274 Western Political Thought—Plato to the Present
- PO 275 Comparative Government
- PO 277 American Government: State and Local
- PO 350 Research Methods in Political Science
- PO 475 Senior Seminar in Political Science

Political Science Major**(No Concentration)**

A student choosing the political science major (no concentration) *must complete* the above CORE courses and 15 credits (five courses) at the PO 300 or 400 level.

Political Science Major**(American Politics)**

A student choosing the political science major (American Politics Concentration) *must complete* the above CORE courses and the following concentration requirements:

A minimum of one course *must* be selected from the following concentration requirements:

- PO 372 Legislative Process and Procedures
- PO 391 The American Presidency
- PO 398 The United States Federal Courts

In addition, a minimum of one course *must* be selected from the following:

- PO 375 American Political Parties and Interest Groups
- PO 379 Voters, Elections, and Campaigns
- PO 380 Public Opinion and Mass Political Behavior

Students choosing the American politics concentration *must* select electives from the course menu below:

- PO 376 Urban Politics
- PO 389 Racial Politics in the United States
- PO 472 American Constitutional Development
- PO 474 Civil Liberties and Civil Rights
- PO 476 Women and Politics
- PO 479 Public Policy
- PO 498 Internship in Political Science

Political Science Major**(International Affairs Concentration)**

A student choosing the political science major (International Affairs Concentration) *must complete* the above CORE courses and the following concentration requirements:

- PO 384 United States Foreign Policy
- PO 473 International Organization

In addition, three courses selected from the following:

- PO 370 Canadian Foreign Policy: Actors and Issues
- PO 377 Canadian-American Political Relations
- PO 378 The Causes and Prevention of War in the International Political System
- PO 381 United States-Latin American Relations
- PO 382 Latin American Government and Politics
- PO 383 Comparative Political Systems

PO 385 Government and Politics in the Middle East

PO 386 Canadian Politics

PO 387 Government and Politics of Africa

PO 388 The Government and Politics of Eastern Europe

PO 461 Contemporary International Relations

PO 488 Politics and Development in the Third World

Political Science Major**(Legal Studies Concentration)**

A student choosing the political science major (Legal Studies Concentration) *must complete* the above CORE courses and the following concentration requirements:

PO 285 Introduction to Law

PO 472 American Constitutional Development

In addition, two courses selected from the following:

PO/EC 340 Law and Economics

PO 372 Legislative Process and Procedure

PO 473 International Organization

PO 495 Administrative Law and Regulation

One additional elective at the PO 300 - 400 level.

Double Major with Elementary Education, or Early Childhood Education, or Special Education

Students may choose a double major in Political Science and Elementary Education, Early Childhood Education, or Special Education for certification purposes. Appropriate advising materials with suggested course sequences are available.

Political Science Minor

A student may qualify as a Political Science minor by completing the following requirements:

PO 172 Introduction to American Government

PO 260 International Relations

PO 274 Western Political Thought—Plato to the Present

PO 275 Comparative Government

Three electives, at least one of which must be at the PO 300 - 400 level.

Internship Program

An internship program in political science is available to all

School of Arts & Sciences

students, majors and non-majors, who meet the program criteria. A wide range of assignments are available with federal, state and local governments and nonprofit organizations. Assignment to the internship program is on the basis of application to and subsequent selection by the internship supervisor. Application procedures follow college policy (see section on "Internships" in this catalog). To be eligible for an internship, a Political Science major or minor must have already completed PO 172 and a 300 level political science course and must receive the consent of the internship supervisor. Non-Political Science majors and minors must have the approval of their major adviser and the political science internship supervisor, and must have taken one political science course. Interns must have achieved at least a junior standing. Credits shall be limited to three unless more are approved by the Department of Political Science. It is recommended that those students with an interest in the program confer with the internship supervisor as soon as possible in the semester before their proposed internship.

Pi Sigma Alpha

The Political Science Department has a chapter (the Pi Upsilon Chapter) of Pi Sigma Alpha, the national political science honor society. Each year, the political science faculty selects and invites political science majors who are juniors and seniors and who have demonstrated outstanding academic accomplishments to join. Each initiate receives an inscribed certificate of membership.

Graduate Programs

Master of Public Administration

The Department of Political Science offers the Master of Public Administration (MPA) degree. The MPA program provides professional education to prepare persons for leadership roles in public administration and public affairs at the federal, state, and local levels with flexible career opportunities in both the public and nonprofit sectors.

Program Description

Coursework

The MPA program accommodates the need of both pre-career students and in-career professionals by offering alternative program requirements which take into account the student's academic and professional background.

Students with a bachelor's degree and no professional work experience are expected to complete a 45 credit hour degree program (including six hours of professional internship), while in-career professionals are expected to complete a 39 credit hour program. Up to six hours of appropriate graduate coursework taken elsewhere may be transferred into the degree program. All accepted students must enroll under the direction of their adviser in GP 501 Graduate Program Planning, which is described under "Graduate Adviser and Program Planning" in the *Graduate School* section of this catalog.

The MPA Curriculum

Both pre-career and in-career students must complete a 24 hour core curriculum component of the degree program.

These courses are:

- PO 501 Introduction to Public Institutions and Administration
- PO 505 Public Management
- PO 510 Introduction to Research in Public Administration
- PO 511 Program Evaluation and Policy Analysis
- PO 521 Public Finance
- PO 531 Public Personnel
- PO 532 Organizational Theory and Behavior for Public and Nonprofit Institutions
- PO 591 Capstone Seminar in Public Management

Concentrations

There are four areas in which an MPA candidate may concentrate; elective courses are available in each of the areas. As an alternative to earning a degree within a concentration area, students may pursue a generalist MPA track. For students seeking to earn a degree in a concentration, a minimum of three elective courses must be taken in the substantive area. The substantive concentration areas are as follows:

- Financial and Personnel Administration
- Municipal and Regional Development and Management
- Public Safety Administration
- Nonprofit and Human Services Administration

An additional three hours must be taken in three one-credit professional development modules.

Admissions Information

Detailed information about admissions is provided in the *Graduate School* section of the catalog. To be admitted to the MPA program, an applicant must hold a bachelor's degree from a four-year accredited college or university. If the degree has not yet been awarded at the time of application, the successful applicant must be nearing completion of the bachelor's degree. The admissions process will also require

an acceptable GRE score and an interview with the MPA program faculty. (Please note, to receive a clear admit status, MPA applicants must have a composite score of 900 or greater on the quantitative and verbal parts of the GRE General Test. To receive a conditional acceptance, MPA applicants must have a composite score of 700-899 on the quantitative and verbal parts of the GRE General Test.) Students should submit a resume and three letters of reference should come from professors or practitioners familiar with the student's academic ability. Students failing to meet the standard graduate admissions criteria may also be considered on a conditional basis of acceptance. Contact the Graduate School to receive a catalog and application material.

Exit Requirement

The MPA program offers some degree of flexibility for exit from this program. All students are required to fulfill an exit requirement which in most cases will require passing a written comprehensive examination. This one-day examination allows program faculty to test students' mastery of fundamental principles and issues covered in the core curriculum. Students must have completed at least 30 hours of the degree program to sit for the examination and will have two opportunities to pass the examination. In appropriate circumstances, such as a student interested in pursuing further graduate work at the doctoral level, a master's thesis may be substituted for the comprehensive examination. The master's thesis will be directed by a committee of three faculty members and be covered under the guidelines and regulations of the Graduate School at Bridgewater State College.

Distinctive Features Of The Program**Professional development modules**

The program requires that students register for a minimum of three 15 hour, one credit modules, offered each semester on topics of special relevance to public service. Normally these modules are taught on Saturdays during the semester.

Internships

A six hour internship experience at the local, state, or federal level is required for all pre-professional students and will be available as an elective (3 or 6 hours) for those professionals who wish to enhance their background.

Scheduling

To meet the needs of in-career professionals, both at

Bridgewater and at off-site locations, courses in the program are offered primarily in the evening, once a week for three hours. Occasional intensive weekend courses are also available, as well as a summer schedule of courses which meet twice a week for eight weeks.

For applications and additional information contact the Graduate School and specify your interest in the MPA program:

Graduate School Office
Maxwell Library
Bridgewater State College
Bridgewater, MA 02325
(508) 697 - 1300

School of Arts & Sciences**Course Offerings*****PO 100 Politics in Contemporary Society (3 crs.)**

This course introduces the world of politics with emphasis on basic concepts of political organizations, structures and theory balanced with current political affairs. Satisfies the GER in Social Sciences. *Either semester*

PO 135-136 Freshman Honors Colloquium (1 cr. each semester)

Freshman Honors Colloquia in Political Science allow exceptionally able students to explore a challenging topic in small classes under close faculty supervision. Colloquia meet once a week for fifty minutes and culminate in a paper or scientific project which provides the major part of the grade. Open to All-College Honors students and to others at the discretion of the instructor. The minimum enrollment is two and the maximum enrollment is twelve. Topics vary from semester to semester. (*Prerequisite: consent of the instructor*) *PO 135 fall semester, PO 136 spring semester*

PO 172 Introduction to American Government (3 crs.)

The purpose of the course is to introduce students to the range of research on American political institutions and processes. We will examine the constitutional underpinnings of American government, the role of political parties, interest groups and the media in the system. We will also explore the changing character of political institutions: the Presidency, Congress, and the courts. Satisfies the GER in Social Sciences.

PO 260 International Relations (3 crs.)

This course introduces modern world politics, with emphasis on change and continuity in the structure and processes governing relations within the international community. Emphasis will be placed on the nation-state, dilemmas facing the global community. Satisfies the GER in Social Sciences. *Either semester*

PO 273 United States and Massachusetts Constitutions (1 cr.)

Structure of government and rights and responsibilities according to Federal and Commonwealth constitutions. *Either semester*

PO 274 Western Political Thought - Plato to the Present (3 crs.)

This course covers the principal ideas and philosophies of politics articulated by philosophers and political thinkers since ancient times. The student will be introduced to many of the age-old and puzzling questions of how people can best govern themselves using legal, institutional and behavioral approaches. Satisfies the GER in Social Sciences. *Fall semester*

PO 275 Comparative Government (3 crs.)

Political behavior and government systems in Great Britain, France, Russia, etc. (*Prerequisite: PO 172*) *Fall semester*

PO 277 American Government: State and Local (3 crs.)

State government and politics with emphasis on Massachusetts affairs. (*Prerequisite: PO 172 or consent of the instructor*) *Either semester*

PO 279 Introduction to Public Administration (3 crs.)

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, type of agency organization, popular control over the bureaucracy. (*Prerequisite: PO 172*) *Either semester*

PO 285 Introduction to Law (3 crs.)

A non-technical discussion of legal topics, including the relationship of law to social and humanitarian problems; open to majors and non-majors.

PO 286-287 Sophomore Honors Colloquium (1 cr. each semester)

Freshman Honors Colloquia in Political Science allow exceptionally able students to explore a challenging topic in small classes under close faculty supervision. Colloquia meet once a week for fifty minutes and culminate in a paper or scientific project which provides the major part of the grade. Open to All-College Honors students and to others at the discretion of the instructor. The minimum enrollment is two and the maximum enrollment is twelve. Topics vary from semester to semester. (*Prerequisite: consent of the instructor*) *PO 286 fall semester, PO 287 spring semester*

PO 300 Model United Nations Practicum (1 cr.)

This course which is open to all undergraduates is designed to prepare students for participation in the various Model United Nations programs offered in the United States. Students enrolled in the course will be required to become familiar with the issue positions of the country they represent and develop the skills necessary to become active members of their delegation. (*Prerequisite: consent of the instructor*)

PO 330 Asian Politics (3 crs.)

This course will introduce students to the politics and culture of China, Japan, and Korea. The course will look at both domestic and foreign policy of those nations that make up the Pacific Rim as well as the implications for U.S. policy. (*Prerequisite: PO 275*)

PO 338/339 Honors Tutorial in Political Science (3 crs.)

Special topics in Political Science. Open to All-College and Departmental Honors students. (*Prerequisite: consent of the political science department*)

PO/EC 340 Law and Economics (3 crs.)

This course examines the economic basis for legal decisions. Microeconomic theory is combined with an analysis of the law, with particular emphasis on case studies. Topics covered include the problems of defining property rights and the economics of tort, contract and criminal law. (*Prerequisites: PO 172 or PO 285 and EC 101*)

PO 350 Research Methods in Political Science (3 crs.)

This course provides students with a foundation for reading and assessing the quality of published research in the social sciences, with particular emphasis on the research techniques common in political science and public administration. It introduces the concepts of theory development, hypothesis testing and statistical significance, and provides students with the rudimentary skills, from literature review searches through data analysis, necessary to conduct their own research. Writing is emphasized. (*Prerequisites: one Math GER*)

* See page 73 for general information regarding course offerings.

PO 361 International Political Economy (3 crs.)

This course examines the reciprocal interaction between states and markets, with a particular emphasis upon the ways in which national and international politics structure international economic relations. The course reviews in depth the development and evolution of the postwar economic regimes in money and trade. The course will also examine the role and effects of multinational corporations, the issue of development and alternative development models, the debt crisis, and international struggle for the control of oil. Finally, some important issues and debates within the field of international political economy will be considered. (*Prerequisite: PO 260*)

PO 365 International Politics of the Environment (3 crs.)

This course focuses on some of the major issues of global environmental politics – those environmental problems which transcend state boundaries and whose resolution requires state cooperation and the efforts of states to negotiate environmental agreements. Cases will include, among others, the control of ozone depletion, the limitation of global warming, and the preservation of forests and biodiversity. (*Prerequisite: PO 260*)

PO 370 Canadian Foreign Policy: Actors and Issues (3 crs.)

The objective of the course is to develop a comprehensive understanding of Canadian foreign policy. As such, the course will focus on: (1) Canada's foreign relations with several important actors (the United States, Europe, the Commonwealth, Latin America, Africa, countries of the North Pacific, and the United Nations) in the international political system; and, (2) the conduct of Canadian foreign policy in select issue-areas, including the international political economy, the environment, arms control and disarmament, peace-keeping, developmental assistance, and refugees. (*Prerequisites: PO 260 or permission of the instructor*)

PO 372 Legislative Process and Procedure (3 crs.)

An examination of the United States Congress. Emphasis on internal structure and operations, congressional rules and procedures, party leadership, committee system and seniority, external influences on Congress, incentives for congressional behavior, and constitutional limitations. (*Prerequisite: PO 172*)

PO 374 Modern Political Theory (3 crs.)

The ideas of major political thinkers in the era of the modern nation-state. (*Prerequisite: PO 172*) *Spring semester*

PO 375 American Political Parties and Interest Groups (3 crs.)

An examination of American political party organizations, political leadership, finance, campaign techniques, the historical development of the American party system, party identification, legal controls over parties, the functions and methods of pressure groups and their interaction with policy makers, the role of surrogate organizations such as the media and political consultants, the significance of political parties and pressure groups for democratic ideology, and the problems of political leadership in a democracy. (*Prerequisite: PO 172*)

PO 376 Urban Politics (3 crs.)

Emphasizes both the formal and informal political institutions and processes in American cities and suburbs, including governmental structures, political parties, interest groups, and service delivery sys-

tems. Special attention is given to the multiethnic and multicultural context within which urban politics in the United States takes place. (*Prerequisite: PO 172, PO 277*)

PO 377 Canadian-American Political Relations (3 crs.)

The course will specifically examine the Canadian-American political relationship through the review of prominent bilateral security, economic, environmental, and jurisdictional issues. Principal emphasis will be placed on analyzing bargaining between Ottawa and Washington over a wide range of select case studies. (*Prerequisites PO 260 or permission of the instructor*)

PO 378 The Causes and Prevention of War in the International Political System (3 crs.)

The purpose of this course is to comprehensively examine 1.) the various causes of war in the international political system; and 2.) the methods available, and prospects for, controlling, preventing, and potentially eliminating war. The comparative strengths and weaknesses of theoretical explanations will be reviewed through an analysis of case studies on war drawn from the 19th and 20th centuries. (*Prerequisite: PO 260 or consent of the instructor*) *Offered alternate semesters*

PO 379 Voters, Elections and Campaigns (3 crs.)

An examination of how citizens make electoral decisions, including the decision to participate in elections. The course compares models of voter behavior and probes the influence of such factors as party identification, opinions on issues, ideological orientations, and candidate evaluations; the social and economic context of voting is also examined, as is the importance of elections for policy-making and the functioning of the political system. In addition, the politics of candidate nominations is explored; mass media coverage and opinion polling; the citizen's involvement in campaign politics; voter attitudes toward parties, candidates, and issues, and the interpretation of electoral outcomes. (*Prerequisite: PO 172*)

PO 380 Public Opinion and Mass Political Behavior (3 crs.)

An examination of the nature of contemporary public opinion in the United States, the way in which political attitudes and beliefs find expression in electoral behavior, and the conditions under which public sentiment is translated in to public policy and government action. The goal is to understand political conflict and debate in the U.S. and the ways in which the public influences that debate. Major topics in public opinion include political tolerance and trust, attitudes toward women and minorities, the role of mass media, and the impact of political values and ideology on political campaigns and elections. (*Prerequisite: PO 172*)

PO 381 United States—Latin American Relations (3 crs.)

The evolution and current status of the political, economic and strategic relationship between the United States and the Latin American nations. (*Prerequisite: PO 172, PO 260*) *Offered alternate years*

PO 382 Latin American Government and Politics (3 crs.)

A survey of the current governing structures and the general political conditions in the major Latin American nations. (*Prerequisite: PO 172, PO 275*) *Offered alternate years*

*School of Arts & Sciences***PO 383 Comparative Political Systems (3 crs.)**

An advanced investigation and comparison of the primary political institutions and processes found in a number of contemporary national systems. Special emphasis to be placed on the role and status of constitutions, interest groups, political parties, policy-making bodies and other areas. (Prerequisite: PO 172, PO 275) Offered alternate years

PO 384 United States Foreign Policy (3 crs.)

The study of the national interests and policy instruments that have formed and guided the foreign relations of the United States in the post 1945 period. (Prerequisite: junior status and consent of the instructor) Offered alternate years, Spring semester

PO 385 Government and Politics in the Middle East (3 crs.)

An introduction to the structures and processes of Middle Eastern Government and Politics, focusing on the evolution of contemporary Middle East since the end of World War I and on economic growth, social change, and political development in the region and in specific countries. (Prerequisites: PO 172 and PO 275 or consent of the instructor) Offered alternate years, spring semester

PO 386 Canadian Politics (3 crs.)

An intensive study of the Canadian political system, with particular emphasis on Canada's constitutional turmoil, political institutions and electoral behavior. (Prerequisite: PO 172, and PO 275 or consent of the instructor) Offered alternate years

PO 387 Government and Politics of Africa (3 crs.)

An introduction to the organization and processes of African politics centering on the political evolution of contemporary Africa in general but with specific attention to selected nations as appropriate. (Prerequisite: PO 172 and PO 275, or consent of the instructor) Offered alternate years, spring semester

PO 388 The Government and Politics of Eastern Europe (3 crs.)

This course will introduce students to the governmental structures and political processes of Eastern European countries, including Russia. Included in the course will be a study of national goals, policies and relations with other countries and the ideological framework that makes up these societies. (Prerequisite: PO 275)

PO 389 Racial Politics in the United States (3 crs.)

This course explores racial politics in the United States. It examines classic and contemporary scholarship on the following topics: social movements, collective action, voting and turnout, key provisions of the Voting Rights Act, social science perspectives on the Voting Rights Act, the concept of voting rights and democratic theory, the relationships between race, representation and political institutions, party politics and racial reorientation, the magnitude and structure of intolerance and its implications for democracy, and the causes and consequences of political socialization. (Prerequisite: PO 172)

PO 390 Public Finance (3 crs.)

The role of government in a market economy; the role of taxation in a market economy; principles of taxation; problems of budgeting, government expenditure and debt, and economic growth. (Prerequisite: PO 279 or consent of the instructor) Spring semester

PO 391 The American Presidency (3 crs.)

The purpose of the course is to explore the institution of the American presidency. It examines the constitutional prerogatives and organizational structure of the presidency, how presidential power developed historically, presidential selection and the nomination process, and decision-making. In addition, the course explores the relationship between the presidency and other institutions, both political and nonpolitical: the Congress, the bureaucracy, the courts, and the media. (Prerequisite: PO 172)

PO 398 The United States Federal Courts (3 crs.)

An examination of judicial decision-making focusing in particular on the role of the federal courts system within the political and governmental process; its relation with Congress, the Presidency, state and local governments and courts, and interest groups. (Prerequisite: PO 172)

PO 399 Collective Bargaining in the Public Sector (3 crs.)

An in-depth analysis of the issues behind collective bargaining, the ramifications of contract negotiations and the techniques and tactics which are used by both labor and management. Emphasis on analysis of contracts, legislation and use of negotiation teams. (Prerequisite: PO 279 or consent of the instructor) Offered alternate years

PO 400 Special Topics in Political Science (3 crs.)

A topic of special interest to faculty and/or students will be explored. May be taken more than once. (Prerequisites: nine (9) credits in Political Science or consent of the instructor.)

PO 440 The Politics of Quebec (3 crs.)

This course seeks to comprehensively review the political development of Quebec, particularly since 1960. The political forces behind Quebec's quest for political independence will be the focal point of examination. (Prerequisite: PO 386 or consent of the instructor)

PO 455 Totalitarian Political Systems: Dictators and the Reign of Terror (3 crs.)

This is a course in totalitarianism as a form of political organization. The goal is to review, explain and understand: (1) the political, social, ideological and economic forces that give rise to this extremist form of polity; (2) the various mechanisms through which totalitarian rule manifests itself and is exercised; and (3) the role and influence of key political decisionmakers in totalitarian states. (Prerequisite: PO 275 or consent of the instructor)

PO 460 International Crisis: Bargaining, Decision Making, and Outcomes (3 crs.)

International crises are pivotal periods that steer the international political system toward the outbreak of war or result in the resurrection of order. This course will examine the most prominent crises of the 19th and 20th centuries, with particular emphasis on July 1914 (World War I), October 1962 (Cuban Missile Crisis), and July 1990 (Persian Gulf War). (Prerequisite: PO 260).

PO 461 Contemporary International Relations (2 or 3 crs.)

Application of the techniques of analysis, simulation and forecasting to international relations situations, problems and current issues. (Prerequisite: PO 260 or consent of the instructor) Offered once in three years

PO 472 American Constitutional Development (3 crs.)

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. (Prerequisite: PO 172)

PO 473 International Organization (3 crs.)

The purpose of this course is to develop a thorough understanding of the central concepts and theoretical issues involved in the study of international organizations. It will focus on both governmental and nongovernmental international organizations, including the areas of trade, finance, security, economic development and human rights. (Prerequisite: consent of the instructor) Fall semester

PO 474 Civil Liberties and Civil Rights (3 crs.)

A systematic treatment of leading Supreme Court decisions in such areas as freedom of speech, the press, religion; the rights of criminal defendants; voting rights; the right to privacy; and discrimination on grounds of race, sex, poverty, illegitimacy, and alienage. (Prerequisite: PO 172)

PO 475 Senior Seminar in Political Science (3 crs.)

The undertaking of independent study and a research project presented in oral and written form. (Prerequisite: admission is subject to the consent of the department chairperson and the instructor) Either semester

PO 476 Women and Politics (3 crs.)

Analysis of the role of women in current American politics. The focus is on changing trends in women's electoral participation, political interest, and office seeking over the last several decades, and recent gender differences in political involvement, candidate support, support for women's issues, and support for other public policies. (Prerequisite: PO 172 or consent of instructor.)

PO 479 Public Policy (3 crs.)

A systematic study of theory and practice in the making and the execution of public policy including the factors of public demand on the political system; decision making in the public sector; tools and techniques for implementation and evaluation; and the import for future planning. (Prerequisite: PO 172 and PO 277) Offered alternate years

PO 485 Honors Thesis in Political Science (3 crs.)

This course is open to All-College and Departmental Honors students. One-hour weekly meetings with the thesis director will culminate in an honors thesis. With the consent of the Departmental Honors Committee and the thesis director, this course may be extended into a second semester for three additional credits depending upon the scope of the project. Whether the final version of the thesis qualifies the student to graduate with Honors will be determined by the Departmental Honors Committee. (Prerequisite: consent of the department) Either semester

PO 488 Politics and Development in the Third World (3 crs.)

A survey of the political dynamics of development in the Third World with special emphasis on the dominant theories of development, current critical issues in the Third World, internal and external forces affecting Third World countries and the policy directions taken by developing nations. (Prerequisite: PO 260 and PO 275 or consent of the instructor) Offered alternate years

PO 490 Political Science Studies in Oxford (3 crs.)

Study of selected topics in Political Science including comparative politics. European government, and law and legal systems. Open to Juniors and Seniors only.

PO 495 Administrative Law and Regulation (3 crs.)

The legal and regulatory systems of federal, state and local governments will be analyzed as to their relationship to policy implementation and administration. Emphasis will be placed on charters, ordinances, legislative power and administrative control in areas such as finance, personnel, labor, land use, licensing and education. Formerly PO 395 (Prerequisite: PO 279 or consent of the instructor) Offered alternate years

PO 498 Internship in Political Science (3-15 crs.)

A non-classroom experience intended to complement the academic preparation of a limited number of juniors and seniors majoring in political science. Placements are in areas such as federal, state, city, and town governments and private interest groups. (Prerequisite: consent of the department chairperson; formal application required) Either semester

PO 499 Directed Study in Political Science (1-3 crs.)

Open to juniors and seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits. (Prerequisite: consent of the department chairperson; formal application required) Either semester

PO 501 Introduction to Public Institutions and Administration (3 crs.)

This course is designed to provide students with an understanding of the institutional, political, and normative context of public administration. The course will introduce students to the central issues, values, and dilemmas facing the contemporary public service professional. By the end of the course, the successful student should have a better appreciation and understanding of the political nature and dynamics of public service in a democratic society. It is to be taken among the first four courses in the program. (Prerequisite: An undergraduate course in American government or permission of instructor)

PO 502 Research (credit to be arranged)

Original research undertaken by the graduate student in his field. For details, consult the paragraph entitled "Independent Study" in the Graduate School section of this catalog.

PO 503 Directed Study (credit to be arranged)

Designed for the graduate student who desires to study selected topics in a specific field. For details, consult the paragraph entitled "Independent Study" in the Graduate School section of this catalog.

PO 505 Public Management (3 crs.)

This course gives students broad exposure to the job of the public manager including an introduction to the specific management areas. The course emphasizes both traditional and cutting edge principles of management. The topics include planning for public agencies, organizational structure and development, staffing, training, and motivating employees, leadership development, financing and budgeting for public pro-

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grams, designing and implementing programs, management decision-making, evaluating and monitoring programs, and ethical considerations for public managers. (*Prerequisite: Permission of instructor*)

PO 506 Public Administration Module (1 cr.)

As part of the 15 credit hours of elective courses, each MPA student must take three credit hours of PA Training Modules. These modules earn one credit each, will be offered on a rotational basis, and are scheduled for either two Saturday sessions during the semester, or for week-end "intensive" classes meeting for 15 hours. Students are expected to put in appropriate out-of-class time, and must successfully pass any three of six modules covering: ethics in public service; managerial communication; conflict resolution; diversity in public administration; constitutional rights and privacy in public administration; and current issues for public managers. Graded on a pass/fail basis. (*Prerequisite: Permission of MPA program advisor*)

PO 510 Introduction to Research in Public Administration (3 crs.)

This course is an examination of basic research methods and their use in public administration both from the standpoint of public policy and public management. Topics covered include the scientific methods, experimental and quasi-experimental research designs, sampling, and methods of data collection such as interviewing and questionnaire construction. The course provides students with practical experience using computer software for data analysis.

PO 511 Program Evaluation and Policy Analysis (3 crs.)

The primary objective of this course is to familiarize students with program evaluation theory and practice. It is designed to facilitate in students: an understanding of the role of evaluation in the policy-making process; an ability to analyze evaluation designs and methods critically; and an ability to collect and analyze data to test the effects of governmental or organizational interventions. Emphasis is placed on both qualitative and quantitative analysis. (*Prerequisite: PO 510 Introduction to Research in Public Administration*)

PO 521 Public Finance (3 crs.)

This course covers the principle aspects of public financial management including accounting, budgeting, capital budgeting, revenue forecasting, risk management, pension management and auditing.

PO 531 Public Personnel (3 crs.)

This course focuses on selected topics in the study and practice of public personnel administration. It is designed as an in-depth analysis of the literature, problems, and directions of public personnel issues. Students will develop an appreciation for the dynamic political environment as it influences human resources managers and the statutory and constitutional restrictions that distinguish public personnel management from its counterpart in the private sector.

PO 532 Organizational Theory and Behavior for Public and Nonprofit Institutions (3 crs.)

This course focuses on the types and levels of management which must be integrated in the pursuit of public sector excellence. These levels involve the behavior of individuals; pairs of individuals; supervisor/subordinate relationships; client/administrator relationships; and small groups acting under political, legal and ethical constraints. Institutional and psychological factors will be analyzed.

PO 551 Managing Economic and Community Development (3 crs.)

This course introduces students to the many dimensions of economic development at the local (and state) level, focusing on aspects of how local governments are engaging themselves in this competitive arena. The course explores the following fundamental questions: Who is involved in local economic development? What policies and programs are being pursued and how are they being implemented? What is the impact of local economic development programs? How does local politics influence economic development actions? In addition, the course covers how the external environments (federal policy, and national/regional economic cycles, for example) shape the scope and method of economic development at the local level. (*Prerequisite: Permission of the Department*)

PO 571 Introduction to Nonprofit Theory and Management (3 crs.)

This course addresses the historical and philosophical roots of what is alternatively called the third, voluntary or nonprofit sector. It also addresses the structure of the sector, and current and future trends which influence it. Its purpose is to provide an overview of the issues and trends within the sector, in order to lay a strong foundation of knowledge for those who are pursuing career in nonprofit organizations and/or work in fields which intersect with nonprofit organizations.

PO 591 Capstone Seminar in Public Management (3 crs.)

This course will integrate the various fields of knowledge which the student has acquired over the period of MPA study. Full-time MPA faculty will be responsible for teaching it, and the design will not be prescribed; some may choose to teach it as an applied case-study seminar, while others may develop the course thematically, as an in-depth study of a particular area of public administration literature. (*Prerequisite: completion of thirty hours of coursework*)

PO 592 Special Topics in Public Administration (3 crs.)

Special topics of current relevance in public administration will be offered from time to time. The topic to be addressed will be announced in preregistration publications. May be taken more than once with the consent of the adviser. (*Prerequisite: Course prerequisites may be specified depending upon the nature of the topic*)

PO 598 Internship: Public Administration (3 crs.)

One of the key elements for pre-career students in the Bridgewater State College MPA program is the internship experience. An internship provides an opportunity to apply and test what has been learned in the classroom and allows the student to develop professional skills. The general internship framework is designed to conform to the NASPAA internship guidelines. (*Prerequisite: Matriculation in MPA program*)

Department of Psychology

Faculty

Chairperson: Professor Ruth Hannon

Professors: Drake Chisholm, Richard Colgan,
David Richards, Louis Schippers,
Susan Todd, Kenneth Wolkon

**Associate
Professor:** Margaret Johnson

**Assistant
Professors:** Donald Brown, Elizabeth Englander,
Jeffrey Nicholas, Deborah Offner,
Orlando Olivares



Undergraduate Program

Bachelor of Arts/Bachelor of Science

The objectives of the Department of Psychology are to: 1) provide all students with an understanding of psychology and what psychologists do; 2) give students (where applicable) a background in psychology that will help them do their job better; 3) give our terminal majors sufficient training to enhance their opportunities for vocational placement in psychology-related occupations; 4) give our majors who intend to become professional psychologists sufficient preparation to permit them to be competitive in achieving admission to and success in graduate schools.

Psychology Major

PY 100 Introductory Psychology
 PY 201 Quantitative Methods in Behavioral Sciences
 (MA 110 Elementary Statistics I is accepted but not recommended)
 PY 224 Child Psychology
 or
 PY 227 Development Through the Life Cycle
 PY 252 Psychology of Learning
 PY 310 Social Psychology
 PY 320 Experimental Psychology
 PY 360 Psychology of Personality

In addition, psychology majors must select five elective courses as follows:

Advanced psychological studies (select one of the following courses):

PY 303 Survey of Psychological Testing
 PY 319 History of Psychology
 PY 321 Psychology of Human Differences
 PY 350 Special Topics in Psychology
 PY 404 Attitude and Personality Measurement
 PY 490 Senior Seminar

Biobehavioral, cognitive, and social psychological studies (select one of the following courses):

PY 210 Applied Social Psychology
 PY 240 Sensation and Perception
 PY 280 Consumer Psychology
 PY 305 Psychology of Personnel Selection
 PY 313 Psychology of Organizations
 PY 337 Cognitive Psychology
 PY 342 Physiological Psychology
 PY 344 Drugs and Human Behavior
 PY 355 Behavioral Modification
 PY 385 Environmental Psychology
 PY 474 Forensic Psychology

Clinical Studies and Practicum and Research (select one of the following courses):

PY 365 Medical Psychology
 PY 369 Psychology of Criminal Behavior

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PY 370 Abnormal Psychology
PY 470 Clinical Psychology
PY 475 Psychology of Group Behavior
PY 492 Seminar: Clinical Methods in Medical Psychology
PY 495 Practicum: Medical Psychology
PY 496 Personnel Practicum
PY 497 Research
PY 498 Clinical Practicum
PY 499 Directed Study in Psychology

Plus two additional electives: any psychology course.

Also required:

One Biology lab course from the following:

BI 100 General Principles of Biology

or

BI 102 Introduction to Zoology

and

One Biology course from the following:

BI 110 Biology: A Human Approach

BI 111 Human Heredity

BI 112 Biology and Human Thought

BI 113 Fundamentals of Biology

BI 117 The Biological Environment

BI 118 Evolution

BI 251 Human Anatomy and Physiology I

BI 252 Human Anatomy and Physiology II

BI 280 Human Physiology

BI 372 Animal Behavior

BI 370 Vertebrate Zoology

BI 390 Introduction to Pharmacology

Students enrolled prior to Fall 1987 and transfer students enrolled prior to September 1989 are required to complete a foreign language through the intermediate level or its equivalent.

Industrial-Personnel Psychology Concentration

This concentration will provide students with an understanding of the psychological principles related to personnel work and the application of these principles to business and industry.

PY 100 Introductory Psychology

PY 201 Quantitative Methods in Behavioral Sciences

(MA 110 Elementary Statistics I accepted but not recommended)

PY 227 Development Through the Life Cycle

PY 252 Psychology of Learning

PY 310 Social Psychology

PY 320 Experimental Psychology

PY 360 Psychology of Personality

Additional requirements for Industrial-Personnel Psychology students include:

PY 210 Applied Social Psychology

PY 303 Survey of Psychological Testing

or

PY 404 Attitude and Personality Measurement

PY 305 Psychology of Personnel Selection

PY 313 Psychology of Organizations

PY 321 Psychology of Human Differences

PY 496 Personnel Practicum

One Biology lab course from the following:

BI 100 General Principles of Biology

or

BI 102 Introduction to Zoology

and

One Biology course from the following:

BI 110 Biology: A Human Approach

BI 111 Human Heredity

BI 112 Biology and Human Thought

BI 113 Fundamentals of Biology

BI 117 The Biological Environment

BI 118 Evolution

BI 251 Human Anatomy and Physiology I

BI 252 Human Anatomy and Physiology II

BI 280 Human Physiology

BI 370 Vertebrate Zoology

BI 372 Animal Behavior

BI 390 Introduction to Pharmacology

Also required:

EN 201 Technical Writing I

AF 240 Accounting I

or

CS 105 Computers and their Applications: An Introduction

SO 350 Sociology of Work

or

SO 332 Sociology of Organizations

HI 462 American Labor History

One course from the following:

CC 452 Organizational Communication

EC 101 Principles of Microeconomics

EC 102 Principles of Macroeconomics

Medical Psychology Concentration

PY 100 Introductory Psychology

PY 201 Quantitative Methods in Behavioral Sciences

(MA 110 Elementary Statistics I is accepted but not recommended)

PY 227 Development Through the Life Cycle

PY 252 Psychology of Learning
 PY 310 Social Psychology
 PY 320 Experimental Psychology
 PY 360 Psychology of Personality

Additional requirements for Medical Psychology students include:

PY 365 Medical Psychology
 PY 342 Physiological Psychology
 PY 344 Drugs and Human Behavior
 or
 PY 355 Behavior Modification
 PY 303 Survey of Psychological Testing
 PY 492 Seminar: Clinical Methods in Medical Psychology
 PY 495 Practicum: Medical Psychology

One Biology lab course from the following:

BI 100 General Principles of Biology
 or
 BI 102 Introduction to Zoology

One Biology course from the following:

BI 110 Biology: A Human Approach
 BI 111 Human Heredity
 BI 112 Biology and Human Thought
 BI 113 Fundamentals of Biology
 BI 117 The Biological Environment
 BI 118 Evolution
 BI 251 Human Anatomy and Physiology I
 BI 252 Human Anatomy and Physiology II
 BI 280 Human Physiology
 BI 370 Vertebrate Zoology
 BI 372 Animal Behavior
 BI 390 Introduction to Pharmacology

Also required:

EN 201 Technical Writing
 AN 330 Medical Anthropology
 or
 SO 307 Medical Sociology
 PL 205 Medical Ethics
 CH 102 Chemistry in Everyday Life
 or
 PH 102 Modern Physics for the Humanist
 SW 400 Social Services in the Health Care Field

It is strongly recommended that all psychology majors planning further work in psychology at the graduate level take PY 319 History of Psychology. Such students should also elect courses which will develop their computational and writing skills. In addition, some computer literacy is advantageous.

Double Major with Elementary Education, Early Childhood Education and Special Education

Students may choose a double major in Psychology and Elementary Education, Early Childhood Education or Special Education for certification purposes. Appropriate advising materials with suggested course sequences are available.

Minor in Secondary Education

Students minoring in education must refer to the Department of Secondary Education and Professional Programs for specific teacher certification and program requirements.

Psychology Minor

PY 100 Introductory Psychology
 Five other psychology courses to fit the needs of the individual students.

Honors Program

The Honors Program in Psychology provides highly motivated Psychology Majors with opportunities to enhance their academic program through intensive scholarly study and research designed to be of assistance in post-graduate employment or in the pursuit of an advanced degree in Psychology. Contact the Department of Psychology for further information concerning eligibility and application.

Graduate Programs

Master of Arts

The Department of Psychology at Bridgewater State College in conjunction with the University of Massachusetts Dartmouth offers a graduate program leading to the degree of Master of Arts with specializations in Clinical-Behavioral Analysis (University of Massachusetts Dartmouth only), Clinical-Psychotherapy (BSC only), Human Service Administration (University of Massachusetts Dartmouth only), and Industrial-Personnel/Organizational Psychology (BSC only).

The objectives of the program are threefold: 1) provide students with specific and applied research and problem-solving skills; 2) provide all clinical students with a broad exposure to a variety of modes of therapy; 3) provide students with extensive experiential learning opportunities including practica, placements and intensive supervision.

School of Arts & Sciences

Each applicant will be examined in light of his or her own academic record as well as work related experience. All applicants must submit GRE scores including both General and Advanced tests, three letters of recommendation, undergraduate transcript and work related history. One must possess an undergraduate degree in either psychology or a closely related field. Since enrollment is limited, successful candidates should have a minimum of 3.0 GPA as an undergraduate, above average GRE scores and some experience in the field. Final candidates will also receive a personal interview from the Admissions Committee.

Requirements for the Degree

Students must complete a minimum of 60 approved graduate credits for Psychotherapy/Clinical Psychology and 43 approved graduate credits for Industrial Personnel/Organizational Psychology. Of these, four (4) credits will include a thesis research project. Students must provide an oral defense of their thesis before graduation. All students will complete a 15-credit academic core, a 12-20 credit clinical core, and 12-21 credits depending on the applied specialty.

Program Design

Students completing the academic core at the University of Massachusetts Dartmouth may transfer their academic core credits to Bridgewater State College. However, clinical students seeking licensure may need to meet licensure requirements by completing additional coursework (graduating with 60 approved graduate credits in the required areas). In general, matriculated students will be expected to take two or three courses per semester to complete the first year academic core before concentrating on specialty areas. To accommodate students who are currently working, courses will be offered after 4:00 PM.

Presently, the program is presented as a three-year program. In the second and third year of the program, students will attend the campus offering their selected area of specialization.

Part I Academic Core

- PY 500 Developmental Human Psychology 3 crs.
- PY 513 Psychopharmacology for
Nonmedical Professionals 3 crs.
- PY 505 Research Methods and Design I 3 crs.
- PY 506 Research Methods and Design II 3 crs.
- PY 507 Research Methods and Design III 3 crs.

(PY 501-502 Proseminars in Psychology I-II — each 3 crs. for students seeking transfer of Academic Core to U-Mass Dartmouth only, by special arrangement, as directed studies with Department of Psychology. Replaces PY 500 and PY 513.)

Part II Clinical Core

- PY 504 Research 4 crs.
- PY 511 Theories of Psychotherapy 3 crs.
- PY 512 Evaluation Techniques 3 crs.
- PY 591 Clinical Practicum
(Required for clinical students only) 2 crs.
- PY 592 Internship 6-12 crs.

Part III Applied Specialty

(Two Bridgewater State College Options)

A. Clinical/Psychotherapy

- PY 509 Foundations of Clinical Practice 3 crs.
- PY 516 Multicultural Counseling 3 crs.
- PY 517 Career Information and Placement 3 crs.
- PY 518 Theory and Process of Group Interaction
or
PY 519 The Facilitation of Group Experience 3 crs.
- PY 541 Psychotherapy: Theory and Practice I 3 crs.
- PY 542 Psychotherapy: Theory and Practice II 3 crs.
- PY 575 Psychopathology 3 crs.

B. Industrial-Personnel/Organizational

- PY 551 Advanced Seminar in Personnel 3 crs.
- PY 552 Employee Evaluation Techniques 3 crs.

PY 553 Theories and Research in the Psychology of

- Motivation 3 crs.
- PY — Elective 3 crs.

The departmental offerings listed below included the following courses which may not be taken for graduate credit:

*All courses below the 400 level

*PY 497 Research

*PY 498 Clinical Practicum

*PY 499 Directed Study in Psychology

Important: Only 500 level courses will be accepted for credit in the M.A. Program in Psychology. In general, 400 level courses may be taken for graduate credit by non-matriculated students. Under current guidelines established by the Commonwealth, students completing the program of study in Clinical/Psychotherapy will be eligible (after completing the required number of post-graduate supervised clinical hours and any necessary practicum, internship, and academic requirements) for licensure as a Mental Health Counselor in Massachusetts.

Course Offerings*

PY 100 Introductory Psychology (3 crs.)

This is a survey of the different processes such as perception, sensation, learning, emotion, with a discussion of the underlying physiological processes as well as an introduction to the more complex areas such as personality development, psychopathology, social influences, and testing. Methods of investigation and research will be integrated with the above topics. Satisfies the GER in Behavioral Sciences. *Either semester*

PY 200 Non-Western Theories of Personality (3 crs.)

This course examines conceptions of personality as they have appeared in non-Western traditions. Differences in focus, methodology and views of the nature of the self are investigated as they relate to cultural world-views such as Yoga, Zen Buddhism and Sufism. *(Prerequisite: PY 100)* Satisfies the GER in Non-Western Civilization. *Every semester*

PY 201 Quantitative Methods in the Behavioral Sciences (3 crs.)

The fundamentals of behavioral science research, with application of the scientific method to the particular problems and issues faced by psychologists, anthropologists, and sociologists. Includes hypothesis formulation, research design, data collection analysis and interpretation, and research report. *(Prerequisite: 3 credits required - MA 105 or above—acceptable by the Psychology and Social Work Departments in lieu of MA 110)* *Every semester*

PY 210 Applied Social Psychology (3 crs.)

Effective communication and better understanding of oneself; listening, persuasion, conflict resolution, goals, expectations, and self-confidence. Contemporary problems such as dissent and minority problems. Guest speakers when possible. *(Prerequisite: PY 100)* *Offered alternate semesters*

PY 224 Child Psychology (3 crs.)

An investigation of the growth and development of the child from conception to pre-adolescence will include both the influence of heredity and other biological factors as well as the social influences of child rearing practices, family value systems, and peer culture effects. Topics will include the development of verbal ability, conscience and moral judgment, personality and self concept. Current theories and research findings will be discussed in relation to the above topics. *(Prerequisite: PY 100)* *Either semester*

PY 226 Adolescent Psychology (3 crs.)

An investigation of the growth and development of the pre-adolescent and adolescent including both physical as well as psychological changes relating to intellectual, moral, emotional, personality, and social aspects. Current theories and research findings will be discussed in relation to the above topics. *(Prerequisite: PY 100)* *Alternate semesters*

PY 227 Development Through the Life Cycle (3 crs.)

This course offers a survey of the life cycle and an integrated approach to understanding the individual and developmental processes. The developmental tasks of infancy, childhood, adolescence, adulthood are viewed from a life span perspective, with emphasis on continuity and change. *(Prerequisite: PY 100)* *Offered alternate years, spring semester*

PY 240 Sensation and Perception (3 crs.)

This course explores the relationship between the nature of the environment and perceptual experience, including the sensory processes. Perceptual processes examined include spatial, pattern, and color perception, as well as our perception of time, depth, and the perception of action and events. The relationship between perception, memory, cognition and behavior is investigated, with implications for our understanding of cultural differences, how we perceive personality and emotion, and psychotherapeutic change.

PY 252 Psychology of Learning (3 crs.)

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. *(Prerequisite: PY 100)* *Either semester*

PY 280 Consumer Psychology (3 crs.)

An investigation of the psychological techniques being used in advertising and merchandising. Emphasis will be on the psychological aspects of consumer purchasing practice with respect to motivation, attitudes, learning, and perception. *(Prerequisite: PY 100)* *Either semester*

PY 303 Survey of Psychological Testing (3 crs.)

An introduction to the theory of psychological measurement and test development including item indices, speededness, reliability, and validity with a survey of various psychological instruments used in assessment, personnel selection, and psychological research. *(Prerequisite: PY 100 and MA 110 or PY 201)* *Fall semester*

PY 305 Psychology of Personnel Selection (3 crs.)

The psychology of interviewing, testing and data analysis as it is employed for the effective placement of personnel in business, industry, and other organizations. Includes: criterion selection, job analysis, outcome prediction and validation, and a psychological perspective of jobs and job function. *(Prerequisite: PY 100)* *Fall semester*

PY 310 Social Psychology (3 crs.)

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. *(Prerequisite: PY 100)* *Either semester*

PY 313 Psychology of Organizations (3 crs.)

Theories and research, organizational objectives, systems analyses and efficiency planning, quantity and quality of productivity, morale, leadership, personnel selection, career development, committee effectiveness, evaluation research and use of other feedback techniques to improve functioning. Term project: analysis of an existing organization, with recommendations. *(Prerequisite: PY 100)* *Spring semester*

PY 319 History of Psychology (3 crs.)

A study of the early recognition and historical trends in the study of psychology from the early Greeks through the Renaissance to the 19th and early 20th century schools of thought. Eminent psychologists and their contributions will be integrated with the historical perspective. *(Prerequisite: At least 12 hours of psychology or consent of the instructor)* *Fall semester*

* See page 73 for general information regarding course offerings.

*School of Arts & Sciences***PY 320 Experimental Psychology (3 crs.)**

This course will focus on research methods in Psychology. Students will learn how to conduct, comprehend, and critically evaluate research methods used in a diversity of psychological research including, for example, physiological psychology, child psychology, social issues, sensation and perception, and learning and motivation. Students will evaluate how real studies test theories and hypotheses and determine how to resolve the conflicting findings of previous research. Proper psychological experimental design and writing format will be emphasized. *(Prerequisite: PY 100 and PY 201 or MA 110)*

PY 321 Psychology of Human Differences (3 crs.)

The relative contributions of genes and environment to individual and group differences will be examined. Topics will include the description of human variability, gene/environment interactions, the heritability of cognitive abilities, personality, and psychopathology, and sex and age differences.

PY 327 Psychology of Exceptional Children (3 crs.)

This course will deal with the identification and understanding of children with special needs. Special techniques appropriate to helping these children will be treated. Emphasis will be placed on the psychological problems of the learning disabled, mentally, emotionally, and physically handicapped children as well as those of the academically gifted or creative child. *(Prerequisite: PY 224 or PY 226 or consent of the instructor) Spring semester*

PY 328 Psychology of Mental Retardation (3 crs.)

Origins (genetic, organic, sensory, maternal, and cultural deprivation), manifestations, diagnostic aids, therapeutic and remedial techniques. *(Prerequisite: PY 224 or consent of the instructor) Fall semester*

PY 329 Psychology of Aging (3 crs.)

A study of the sensory, cognitive and social changes resulting from old age, including changes in learning, personality, and pathology. Problems of adjustment will be discussed and integrated with research findings in gerontology. *(Prerequisite: PY 100) Offered alternate years, spring semester*

PY 337 Cognitive Psychology (3 crs.)

The psychology of thinking, including historical and philosophical issues; process models, information theory, cybernetic, general systems and field theory approaches, visual and auditory cognition, psycholinguistics, memory and attention, problem solving and concept formation, with implications for mental retardation and learning disabilities. Formerly PY 339. *(Prerequisite: At least 12 hours in psychology or consent of the instructor) Offered alternate years, Spring semester*

PY 338-339 Honors Tutorial (3 crs. each semester)

Special topics in Psychology. Open to All-College and Departmental Honors students. Three hourly meetings weekly. *(Prerequisite: consent of the department) PY 338 fall semester, PY 339 spring semester*

PY 342 Physiological Psychology (3 crs.)

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. *(Prerequisite: BI 102 or equivalent and PY 100) Offered alternate years, fall semester*

PY 344 Drugs and Human Behavior (3 crs.)

An exploration of psychoactive drugs and the way in which they are used in psychology today. Each drug will be studied in terms of the psychological, psychophysiological and behavioral theories of drug effects. *(Prerequisite: PY 100) Offered alternate years, fall semester*

PY 350 Special Topics in Psychology (3 crs.)

Various and special topics of current interest in psychology will be offered from time to time. Topics will be announced before pre-registration. May be taken more than once but only three credits will be counted towards the first 33 hours in the Psychology major. *(Prerequisite: At least nine hours in psychology or permission of the Instructor) Either semester*

PY 355 Behavior Modification (3 crs.)

This course systematically presents the principles that are necessary to analyze everyday human behavior. These principles are then applied to the treatment and prevention of a wide variety of behavior problems in education, clinical settings, and the workplace. An emphasis is placed on the research methods used to assess the effectiveness of each procedure used to change behavior.

PY 360 Psychology of Personality (3 crs.)

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 adjustments will be considered. *(Prerequisite: PY 100) Either semester*

PY 365 Medical Psychology (3 crs.)

An examination of the psychological and behavioral dimensions of physical illness and health care. Based on contemporary research including, psychoneuroimmunology, imagery, and biofeedback, a holistic perspective for working with mind-body interactions is developed. Applications of these issues and methods as they relate to our understanding and experience of health and illness are addressed. *(Prerequisite: Minimum of nine hours in psychology or consent of the instructor) Fall semester*

PY 369 Psychology of Criminal Behavior (3 crs.)

Definition of criminal behavior and the psychodynamics involved in its causality such as: child rearing practices, personality development, attitude formation, etc. The psychological aspects of punitive vs. rehabilitative incarceration, psychological intervention techniques including behavior modification, psychotherapy and psychodrama, will also be covered. An integration of theory with research findings will be maintained. *(Prerequisite: PY 100) Fall semester*

PY 370 Abnormal Psychology (3 crs.)

The primary purpose of this course is to define and classify the many different types of abnormal behavior. The genetic, biochemical and environmental causes for each category of behavior are presented. To a lesser degree, the most effective treatments and the degree to which the treatments are successful is evaluated.

PY 385 Environmental Psychology (3 crs.)

Examines the interplay between the psychological aspects of man and his physical environment. Topics will include privacy, personal space, territorial behavior, crowding, urban living, as well as the interactions

Psychology

between the physical environment and a variety of social, cognitive, and perceptual behaviors. (Prerequisite: PY 100) Offered alternate years

PY 404 Attitude and Personality Measurement (3 crs.)

Principles of construction of attitude scales and personality assessment techniques, including both projective and inventory-type techniques. Issues and controversies in psychological measurement. (Prerequisite: PY 360, PY 310, and MA 110 or PY 201) Offered alternate years, spring semester

PY 470 Clinical Psychology (3 crs.)

Survey of diagnostic and treatment procedures and resources in clinical work with children and adults; professional skills and responsibilities of the clinical psychologist. (Prerequisite: PY 360 and PY 370) Fall semester

PY 474 Forensic Psychology (3 crs.)

A study of basic underlying assumptions of personality theory such as intentionality, nature/nurture and the knowability of man as these issues pertain to motive and bias as they manifest themselves in a judicial system. (Prerequisites: PY 360, PY 370) Offered once in three years

PY 475 Psychology of Group Behavior (3 crs.)

Group theory, theories of group psychotherapy, leadership and facilitation, group process; plus laboratory experience in interpersonal relations designed to develop skills useful in human services applications. Open only to senior psychology majors with consent of the department. Offered alternate years, spring semester

PY 485 Honors Thesis (6 crs.)

This course is open to All-College and Departmental Honors students. Two two-hour weekly meetings with the thesis director will culminate in an honors thesis. The honors student will normally enroll in this course during the fall semester of the senior year and complete the course during the spring semester of the senior year, earning a total of six credits. Whether the final version of the thesis qualifies the student to graduate with honors will be determined by the Department Honors Committee. (Prerequisite: consent of the department)

PY 486 Honors Thesis II (3 crs.)

This course is open to All-College and Departmental Honors students who have completed PY 485. Two two-hour weekly meetings with the thesis director will culminate in an honors thesis. The honor student will normally enroll in this course during the spring semester of the senior year. Whether the final version of the thesis qualifies the student to graduate with honors will be determined by the Department Honors Committee. (Prerequisite: PY 485)

PY 490 Senior Seminar (3 crs.)

Topical areas of psychology will be offered to allow seniors an opportunity to make individual presentations and critique each other through discussion. Topics will be announced in advance. May be taken twice, but only three credits will be credited toward the first 33 hours for psychology majors. (Prerequisite: 18 hours in psychology or consent of the instructor) Spring semester

*No more than six hours of any combination PY 497, PY 498 or PY 499 may be counted towards the first 33 hours in the psychology requirements for a major.

PY 492 Seminar: Clinical Methods in Medical Psychology (3 crs.)

A critical examination of practical issues and problems in psychological, behavioral, and holistic approaches to health and illness. A variety of methods for working with mind-body interventions will be demonstrated and discussed. (Prerequisite: PY 365 or consent of the instructor) Spring semester

PY 495 Practicum: Medical Psychology (3-15 crs.)

Provides first-hand experience in the application of psychological, behavioral, and holistic principles to health and illness related issues and problems. (Prerequisite: consent of the instructor) Spring semester

PY 496 Personnel Practicum* (3-15 crs.)

Direct application of psychological principles to actual personnel issues and problems in an organization such as business, industry, government, etc. Open only to seniors who wish to gain first-hand experience. (Prerequisite: consent of the department) Either semester

PY 497 Research* (1-3 crs.)

Individual or group research project. Primarily for senior majors in psychology; others by special arrangement. May be taken twice for maximum of six credits. (Prerequisite: consent of the department) Either semester

PY 498 Clinical Practicum* (3-15 crs.)

Open to seniors who wish to have the opportunity to gain first-hand experience in applying psychology in a clinical setting. (Prerequisite: consent of the department) Either semester

PY 499 Directed Study in Psychology* (1-3 crs.)

Open to juniors and seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits. (Prerequisite: consent of the department) Either semester

Other Approved Courses:

PY 351 Psychology of Art

PY 500 Developmental Human Psychology (3 crs.)

This course provides a comprehensive foundation for the study of human psychology from a developmental perspective. The scope and current thinking in each of the five cognate areas will be examined, including: cognition/perception; neuropsychology; psychopathology; learning; and social psychology. Current research, theory, application and conceptual structure within each area will be reviewed. Considerable attention will be placed on the interface between theory and practice. (Prerequisite: matriculation in graduate program in psychology, counseling, or consent of instructor)

PY 503 Directed Study (credit to be arranged)

Designed for the graduate student who desires to study selected topics in his field. For details, consult the paragraph entitled "Independent Study" in the Graduate School section of this catalog.

PY 504 Research (4 crs.)

Original research undertaken by the graduate student in a specific field. For details, consult the paragraph entitled "Independent Study" in the Graduate School section of this catalog. Formerly PY 502

School of Arts & Sciences

PY 505-506-507 Research Methods and Design I-II-III
(3 crs. for each semester)

This course includes three semesters of integrated statistical procedures and research design skills. Special emphasis will be placed on methodological issues that are likely to confront the graduate in applied settings. In addition to covering traditional statistical and design concepts, special applied research tools such as survey methodology, program evaluation "small-N" designs, nonparametric and multivariate models will be presented. The course will be very closely tied to the use of commonly available statistical packages such as SPSS, BMD, ALICE, and STP. The course will reflect a strong experiential component including data collection, analysis and interpretation. (Prerequisite: Admission to M.A. in Psychology program or consent of Department)

PY 508 Advanced Seminar (3 crs.)

Various and special topics of current relevance in psychology, to be dealt with in depth, will be offered from time to time. Topics will be announced before pre-registration. May be taken more than once but only three credits will be counted towards the graduate program. (Prerequisite: Admission to M.A. in Psychology program or consent of Department)

PY 509 Foundations of Clinical Practice (3 crs.)

This course will prepare the clinician for practicum/internship training by considering the following: 1) historical overview of the profession; 2) multidimensional identity and roles of the mental health professional; 3) practice issues and issues related to Federal and state legislation dealing with, for example, duty to warn, confidentiality, and mandated reporting; 4) the variety of clinical settings and mental health delivery systems, including principles, theories and techniques of evaluation and management; 5) ethical and legal standards of psychological professional organizations; 6) experimental learning and the use of supervision; 7) report writing and note keeping for clinicians; 8) self-evaluation. (Prerequisite: Matriculation in Graduate Program in Psychology, Counseling, or consent of instructor)

PY 511 Theories of Psychotherapy (3 crs.)

The major counseling theories are explored in an academic and experiential format. Role playing and videotaping of the theories are common modalities. A sampling of the theories discussed are: Reality Therapy, Behavior Therapy, Rational Emotive Therapy, Gestalt Therapy, Transactional Analysis, Client Centered Therapy and the Psychoanalytic Model. Formerly PY 570. (Prerequisite: Admission to M.A. in Psychology program or consent of Department)

PY 512 Evaluation Techniques (3 crs.)

The course will begin with traditional components of psychological testing, including test construction, test development, test administration and test interpretation. Specific training will be placed on frequently administered clinical tests (e.g., MMPI, WAIS, and WISC). Beyond traditional test theory, students will be exposed to contemporary evaluation devices including behavioral assessment, interview data and naturalistic observation. Formerly PY 573. (Prerequisite: Admission to M.A. in Psychology program or permission of Department)

PY 513/GC 563 Psychopharmacology for Nonmedical Professionals
(3 crs.)

This course examines modern drug treatment for mental disorders, including schizophrenia, mania, depression and anxiety. The types of

drugs — antipsychotics, antidepressants, antianxiety, and sedative-hypnotics — are discussed in conjunction with diagnostic factors, effectiveness, side effects, risk, and biological actions. Psychotherapeutic and ethical concerns are considered.

PY 514 Attitude Change Research (3 crs.)

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. Formerly PY 512 (Prerequisite: PY 310, MA 110 or PY 201 or equivalents; consent of the instructor)

PY 515 Controversies in Social Psychology (3 crs.)

In this seminar, students, working in teams, will present a summary of the research and theoretical literature related to a particular topic in social psychology. The presentation will include research evidence and theories supporting opposing viewpoints. Also included in the presentation will be students' own conclusions based on the weight of the evidence and a suggestion for a specific research study that could help clarify the problem. (Prerequisite: PY 310 Social Psychology or its equivalent)

PY 516/GC 529 Multicultural Counseling (3 crs.)

This skill based course will further develop the students' working knowledge and basic competency in multicultural counseling theory and application. To this end, the course will focus on the counselor on both a professional and personal level. Additionally, the course will examine salient and population specific issues related to the life experiences of the culturally "different" client and how such experiences impact on the counseling relationship and process. Underlying values and assumptions associated with widely used traditional counseling interventions and their appropriateness with nonmainstream populations will be explored. Traditional and nontraditional culturally consonant counseling approaches will also be discussed. (Prerequisite: Admission to M.A. in Psychology program or consent of instructor)

PY 517/GC 539 Career Information and Placement (3 crs.)

This course will review concepts, issues, and trends in the field of career education. It is designed to consider the role of the counselor in the career decision making process, as well as current issues in the facilitation of career decisions for women, men, couples, and "minority" persons. Topics will include, but may not be limited to, selected theories of career life planning and development, techniques designed to bring about greater awareness of needs, values, interests, and abilities related to career decision-making, and a range of techniques counselors may choose to facilitate work with clients. Pre-practicum field component included. (Prerequisite: Admission to M.A. in Psychology program or consent of instructor)

PY 518/GC 538 Theory and Process of Group Interaction (3 crs.)

An examination of the theories and processes of group dynamics and their relationship to counseling philosophy. Special emphasis will be placed on the synthesis of leadership, membership, and purpose, as well as the evaluation of the appropriateness of various group counseling applications. (Prerequisite: Admission to M.A. in Psychology program or consent of instructor)

PY 519/GC 542 The Facilitation of Group Experience (3 crs.)

An introduction to the concepts and practices of facilitating various types of group experiences. A number of leadership methods will be presented, and each participant will experience a leadership role under controlled circumstances. *(Prerequisite: GC 538 or consent of instructor)*

PY 520/GC 564 Theories of Development (3 crs.)

This course will contrast and compare the major models of development: cognitive-structural, psychoanalytic, and behaviorist, with special emphasis on their a priori assumptions and research strategies. Works of Piaget, Werner, Freud, Erikson, Skinner, Spence, and others will be examined. *(Prerequisite: PY 224, PY 360 or equivalent; consent of the instructor)*

PY 525/GC 565 Cognitive Development (3 crs.)

The development of the cognitive processes, including perception, language, intelligence, and memory. Throughout the life cycle the major focus will be on the growth of basic systems and strategies for representing information symbolically. The work of cognitive theories such as Berlyne, Bruner, and Piaget will be considered. *(Prerequisite: PY 224 or equivalent; consent of the instructor)*

PY 526/GC 566 Childhood Psychopathology (3 crs.)

The nature, etiology, consequences and prevention of the major emotional disorders of children, considered from a developmental viewpoint. Areas include emotional problems of normal children as well as serious psychopathology. Primary emphasis is on psychological factors responsible for deviance. Some attention to organic and constitutional factors. *(Prerequisite: PY 224, PY 327 or equivalents)*

PY 528 Seminar in Clinical Child Psychology (3 crs.)

Examination of theoretical foundations and principle techniques used in the assessment and treatment of psychological problems of children. Emphasis will be placed on the unique needs of children in assessment and treatment. *(Prerequisite: PY 224 and PY 327 or PY 526)*

PY 540 Cognitive-Perceptual Psychology (3 crs.)

An in-depth examination and review of the scientific literature concerned with cognitive-perceptual issues, principles, and theories, integrating perception, learning, memory, language, and thinking. Materials will be evaluated with pragmatic regard to experimental, medical, clinical, and educational settings. *(Prerequisite: PY 240, PY 252 or equivalent, or consent of the instructor)*

PY 541 Psychotherapy: Theory and Practice I (3 crs.)

An examination of short term/focused psychotherapy usually practiced in a managed care environment. Attention is given to: treatment planning; strategies of intervention for symptom reduction; and management and utilization of community resources. *(Prerequisite: Matriculation in M.A. program in Psychology or consent of instructor)*

PY 542 Psychotherapy: Theory and Practice II (3 crs.)

An examination of cognitive therapy for the treatment of psychological disorders. The theory base of Beck, Ellis, and others is utilized to focus on the role of cognition in the development and maintenance of

such states as depression, anxiety, and personality disorders. Strategies for intervention and treatment are included. *(Prerequisite: Matriculation in M.A. Program in Psychology or consent of instructor)*

PY 543/GC 567 Marital and Family Therapy (3 crs.)

This course is an examination of the treatment strategies for marital and family systems. Attention will be given to: 1) history and development of marital and family therapy; 2) current schools of therapy; 3) strategies of intervention; 4) the role of the therapist in marital and family work; 5) professional standards for marital and family therapy. *(Prerequisite: Matriculation in M.A. program in Psychology or consent of instructor)*

PY 551 Advanced Seminar in Personnel (3 crs.)

This course will cover a variety of topics that are important to personnel management and counseling. These topics will include personnel policy formulation and implementation, the use of testing in the industrial setting, the purpose and structure of the interview, the development and implementation of employee assistance programs, etc. Student presentations and/or term papers will be required.

PY 552 Employee Evaluation Techniques (3 crs.)

This course will survey current techniques used in evaluating the training and performance of employees. Appraisal techniques such as employee rating scales, interpersonal ranking methods, and management by objectives will be discussed with particular emphasis on the motivation of employees.

PY 553 Theories and Research in the Psychology of Motivation (3 crs.)

This course examines a critical problem in personnel management; namely, how to develop and sustain a high level of motivation among workers. The problem is explored in detail through analysis of psychological theories of motivation and through review of recent research in industrial psychology.

PY 572 Community Psychology and Mental Health (3 crs.)

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. *(Prerequisites: PY 360 and PY 370)*

PY 575/GC 568 Psychopathology (3 crs.)

An examination of the classification, symptoms, and treatment of the types of psychopathology listed in the DSM III-R or its revisions. Special focus will be given to differential diagnosis issues and intervention strategies. *(Prerequisite: Matriculated in Psychology MA program or consent of Instructor)*

PY 576 Transpersonal Psychology (3 crs.)

This course explores alternative models of human consciousness and development which assume that a higher, or transegoic stage of development is possible beyond the stages traditionally investigated by psychology. Examines both Western and Non-Western psychologies, as well as the more contemporary work of Wilber, Washburn, Grof, Jung and others. Special attention will be given to implications for clinical practice. *(Prerequisite: Matriculation in Psychology MA program or consent of Instructor)*

*No more than six hours of any combination PY 497, PY 498 or PY 499 may be counted towards the first 33 hours in the psychology requirements for a major.

*School of Arts & Sciences***PY 591 Clinical Practicum (2 crs.)**

The Clinical Practicum will prepare students to work in mental health settings, providing opportunities to observe and assist under supervision. 100 hours required, including a minimum of 40 hours direct service work; 10 hours of individual supervision; and 20 hours of group supervision. 1 cr/sem: complete in two semesters, 50 hrs/sem, working 3.5 hrs/wk. 2 crs: complete in one semester, for 100 hours, working 7 hrs/wk. May be taken more than once but must total minimum of 100 hours (2crs). (*Prerequisite: Matriculation in M.A. program in Psychology or consent of instructor*)

PY 592 Internship (6-12 crs.)

The internship will allow students to apply the skills acquired through classroom and practicum work. Students will be placed in mental health settings or organizational/personnel settings and will receive extensive supervision. Clinical students: 600 hours required, including minimum of 240 hours direct service work; 15 hours of individual supervision; and 30 hours of group supervision. Complete in one semester (12 crs.) with 600 hours, working full-time (40 hrs/wk); complete in two semesters (6 crs/sem) for 300 hrs/sem, working 20 hrs/wk; complete in three semester (4 crs/sem) for 200 hrs/sem, working 14 hrs/wk; complete in four semesters (3 crs/sem) for 150 hrs/sem, working 10 hrs/wk. May be taken more than once, but must total minimum of 600 hours (12 crs.) Industrial/Personnel students: 300 hours required, including minimum of 15 hours group supervision and 15 hours of individual supervision. Complete in one semester (6 crs.) with 300 hours, working 20 hrs/wk; complete in two semesters (3 crs/sem) for 150 hrs/sem, working 10 hrs/wk. May be taken more than once, but must total minimum of 300 hrs (6 crs.). (*Prerequisite: Matriculation in M.A. program in Psychology or consent of instructor*)

Department of Social Work

Faculty

Chairperson: Professor Rebecca Leavitt

Associate

Professors: David Kemple, Anna Martin-Jearld

Assistant

Professors: Dina Carbonell, Lucinda King-Frode,
Beverly Lovett



Undergraduate Programs

Bachelor of Arts/Bachelor of Science

The objective of the social work major is to prepare undergraduate students for beginning generalist professional practice in the field of social work and other human service fields. Bridgewater's undergraduate social work program prepares its students with current knowledge of social work methods, skills, theories, values, and ethics for practice with various populations and, most especially, with the region's culturally diverse and vulnerable populations. The program builds on a liberal arts perspective that affords each social work student a foundation for the kind of critical thinking, effective communication, and ethical behavior that will be an everyday part of her/his professional practice. This aim gives focus to the curriculum and shapes the course content.

The Social Work Department is an accredited program of the Council on Social Work Education. Graduates are therefore eligible to apply for social work licensure at the LSW level in the Commonwealth of Massachusetts. The program also prepares students for professional education in social work at the graduate level. Students may be eligible for consideration for advanced standing at some graduate schools of social work.

The program integrates theory with field experience in a variety of community social service agencies. In SW 398 Junior Year Fieldwork Practice, the students spend a

minimum of 90 hours over the course of a semester at an agency learning how it functions and how social workers perform their professional roles within it. The Council on Social Work Education does not accept previous work/volunteer experience in lieu of the junior year fieldwork practice course. The SW 398 course lays the foundation for the SW 498 Field Experience which is taken from September through May of the student's senior year and entails a minimum of 400 hours under the supervision of a graduate professional social worker at the MSW level. Students are prepared for beginning professional practice with vulnerable populations.

Social Work Major

- SW 250 Introduction to Social Welfare
- SW 270 Social Work Issues of Diversity and Oppression
- SW 320 Human Behavior and Social Environment I
- SW 321 Human Behavior and Social Environment II
- SW 330 Generalist Practice I
- SW 350 Social Welfare Policy
- SW 398 Junior Year Fieldwork Practice
- SW 431 Generalist Practice II
- SW 432 Generalist Practice III
- SW 440 Research Methods in Social Work
- SW 498 Field Experience in Social Work

School of Arts & Sciences

Required cognates:

PY 100 Introductory Psychology

SO 102 Introduction to Sociology

One additional psychology course

One semester in a human biology course

Social Work Electives:

SW 150 Introduction to Social Work

ID 304 Psychosocial Development of Women

SW 305 Child Welfare

SW 328 Women and Social Services

SW 333 Social Work with the Aged and Their Families

SW 334 Intervention with Family Systems

SW 435 School Social Work - History, Theory and Issues

SW 437 Social Work with Multicultural and Multiethnic Families

SW 399 Special Topics in Social Work

SW 400 Social Services in the Health Care Field

SW/HE 403 Interdisciplinary Approaches to the Delivery of Health Services

SW 415 Social Services in Alcohol and Substance Abuse

SW 499 Directed Study in Social Work

Social Welfare Minor

This minor seeks to acquaint students in majors, concentrations, and pre-professional programs that interface with Social Work (e.g., Sociology, Psychology, Anthropology, Health, Education, Counseling, Business, Pre-Law, Pre-Medicine, Recreation) with the evolution of the social welfare structure in the United States (SW 250), the policies that result in Social Welfare programs (SW 350), and the populations at particular risk (SW 270).

SW 250 Introduction to Social Welfare

SW 270 Social Work Issues of Diversity and Oppression

SW 330 Generalist Practice I

SW 350 Social Welfare Policy

Six additional credits in social work elective courses with the exceptions of SW 398 and SW 498

Admission to the Social Work Program

Students are granted permission to take the first two social work courses when they:

- (1) Meet with an assigned social work adviser, and
- (2) Complete a minimum of 36 hours of General Education Requirements that includes EN 101 Writing I and EN 102 Writing II, CC 130 Human Communication Skills, Introduction to Sociology, Introduction to Psychology, a human biology course and, if possible, ML 102.

However, to be formerly admitted to the social work major, a student must

- (1) Have completed 60 hours of coursework with a minimum G.P.A. of 2.5. Students with a G.P.A. between 2.0 and 2.5 may petition the Social Work Program Admissions Committee that they be accepted into the major. If the decision of the Committee is favorable, such students will be granted **conditional acceptance** to the program only.
- (2) Have completed SW 250 and SW 270 with a social work course G.P.A. (including cognates) of 2.7 and no social work course grades below "C". Students falling slightly below these standards will have their grade performance reviewed by the Social Work Program Admission Committee.
- (3) Demonstrate competency in oral and written communication since such skills are fundamental to and utilized in everyday social work practice. Students must have completed EN 101, EN 102 and CC 130 with a minimum grade of "C+" in each course. A grade of "C" or "C-" in one of these courses may be accepted if the student agrees to consult the Writing Center and give proof that basic skill problems in a given area are identified and addressed.
- (4) Complete an application for admission to the social work major. This application includes: Basic biographical data, information on employment and volunteer experiences, a four to five page self-evaluation of the student's interest, readiness, and suitability for a career in social work. The purposes of the self-evaluation are to demonstrate competency in written expression of the English language and to reflect the applicant's commitment to the goals and purposes of social work. The application is available through the student's assigned faculty adviser in the Department of Social Work. The application should be reviewed during registration advisement by the student's adviser.
- (5) Submit a current copy of his/her transcript that provides an up-to-date indication of cumulative and social work G.P.As.
- (6) Be successfully reviewed by the Social Work faculty. All information obtained through the admission process will be held in confidence. Knowingly making a false oral or written statement during the admission process could result in denial of admission to the program.

(7) Sign a statement indicating that he/she has read and will follow the National Association of Social Worker's Code of ethics. This code is printed in the *Encyclopedia of Social Work*.

Applicants are notified in writing by the Social Work Program Admissions Committee about the outcome of the admission process.

Only social work courses from four year colleges accredited by the Council on Social Work Education will be granted equivalency credit. Transfer students must provide evidence that these courses sufficiently correspond with the goals and objectives specified in highly similar courses within the Department of Social Work curriculum. Performance evaluations of any field work courses completed are also required. The only other course exception would be below-300 level required Social Work course offered on an off-campus site by a Bridgewater State College Social Work faculty person or other CSWE qualified social work faculty, provided the course is fully duplicative of the same course in the Department of Social Work's curriculum as determined through the official articulated agreement process.

An official transcript of past college work must be presented to a social work faculty adviser before permission can be granted to take required social work courses. The transcript must give evidence of a G.P.A. of 2.5 and satisfactory completion of equivalent GER and cognate courses that underpin the major. ML 102 must be taken when first entering Bridgewater if not beforehand.

Admission to Junior Field Placement

Students are eligible for admission to SW 398, the junior year field work experience, after being formally admitted into the social work program. They should have either completed SW 320 and SW 330 or plan to take these courses concurrently with SW 398. A G.P.A. of 2.7 in social work courses and 2.5 overall must be achieved prior to admission to SW 398. Students must also complete the department's Junior Prospective Intern Data Form and the Practicum/Internship Form required by the School of Arts and Sciences.

The social work faculty's junior field education coordinator discusses the placement with the student and arranges for an agency contact. The student then meets with the agency supervisor to discuss the placement, mutual expectations, and available learning opportunities. A final decision is reached by the field education coordinator after consultation with the student and the agency supervisor. Suggested readings and preplacement contacts are worked out on an individual basis.

Admission to Senior Field Placement

A student is eligible for placement in SW 498, the 400+ clock hour senior year field work experience, after being formally admitted into the social work program and after completing SW 320, SW 330 and SW 398 or being in the process of completing SW 398. Each spring semester a meeting is held with students applying for senior field placement to discuss options and procedures. Applications are due no later than February 15 for placement in the following fall. Placements are from September to May and are not available during the summer.

All applications for field placement are reviewed by the Social Work Field Education Review Committee. The needs, strengths, and interests of the students, as well as availability of agency and program placement resources, are discussed. Additionally, each applicant is interviewed by the Social Work Field Coordinator. Issues of concern that may have been identified during the applicant's program admission interview are to be addressed with the applicant. Goals for the student and possible agency options are explored. A particular setting will be recommended on the basis of these variables.

The field education coordinator discusses the placement with the student and arranges for an agency contact. The student then meets with the agency supervisor to discuss the placement, mutual expectations, and available learning opportunities. A final decision is reached by the field education coordinator after consultation with the student and the agency supervisor. Suggested readings and preplacement contacts are worked out on an individual basis.

It is recommended that each student join the National Association of Social Workers during the semester prior to field placement.

Retention in the Social Work Major

Students must remain in full compliance with all regulations, requirements, policies and procedures of the Department of Social Work, the college, and the Council on Social Work Education. Students may be terminated from the social work program if, in the professional judgement of the social work faculty, violations of professional and/or ethical codes have occurred. These violations are discussed in detail in the Department's Admission, Termination, and Appeals Policies and Procedures. Dismissal from two field placements due to unacceptable performance will result in the termination of the student from the social work program. All students wishing to pursue a major in social work are strongly urged to obtain a copy of this document from the Department of

School of Arts & Sciences

Social Work. Coursework with a grade lower than C- must be repeated.

Graduate Program

Social work courses at the 400 level (except SW 498 and SW 499) may be taken for graduate credit in order to meet elective requirements in other graduate programs with faculty adviser's approval.

Course Offerings*

None of these courses may be used to satisfy general education requirements, but may serve as elective credit.

SW 150 Introduction to Social Work (3 crs.)

This course is designed to provide non-majors with an introduction to the activities, responsibilities and roles which are characteristic in the field of social work. In the classroom, learners will have an opportunity to meet a number of experienced practitioners who will serve as guest lecturers and who will provide information on a broad variety of contemporary social work modalities. In addition, field visits to social service facilities, both public and private, will be included in the course plan. Students will become familiar with the client population and the range of client needs currently prevalent in southeastern Massachusetts, and they will make first-hand observation of the ways in which human services are being delivered to meet those needs. *Either semester*

SW 250 Introduction to Social Welfare (3 crs.)

This course includes the analysis of the conceptions of social welfare, the historical development and function of social welfare and the value systems underlying the political, economic and social response to human needs. It offers an overview of the roles of the social worker and the varied settings in which interventions are employed. *(Prerequisite: PY 100 or SO 102) Either semester*

SW 270 Social Work Issues of Diversity and Oppression (3 crs.)

This course introduces students to the concepts of diversity and oppression from a social work perspective. It provides the opportunity to define (and deconstruct), discuss, and examine critically the phenomena of race, ethnicity, gender, culture, difference, power, pluralism, oppression, multiculturalism, social justice, empowerment, assimilation, and social identity. It looks at various ethnic, racial, cultural, and sociological populations from the perspectives of their history, identity, status, strengths, challenges, needs, power, and context. *(Prerequisite: may be taken concurrently with SW 250)*

ID 304 The Psychosocial Development of Women (3 crs.)

This course will provide an introduction to "women's reality" in terms of current research on women's values and needs. The course will cover such topics as power and conflict, sexuality and intimacy, creativity, ethnicity and the effects of oppression as well as the emotional problems which appear to affect women, e.g. depression, eating disorders, etc. *(Prerequisite: consent of instructor)*

SW 305 Child Welfare (3 crs.)

A comprehensive study of the principle child welfare services. The course will concentrate on the human service practitioner's role as a helping agent in the delivery of services. The impact of child welfare on areas of education, sociology, psychology, health and mental health will include aspects of these disciplines as they relate to enhancing the welfare of the child. Learners will make site visits to child welfare agencies and interview professionals providing services to children. *(Prerequisite: SW 250 or consent of the instructor) Either semester*

SW 320 Human Behavior and Social Environment I (3 crs.)

This sequence examines the effects of biological, psychological and socio-cultural factors upon human behavior throughout the life span. Using an ecological perspective and social systems approach, this sequence chronologically explores normal human development. Human diversity, the various issues which may impel persons to maladaptive behavior, and the ways in which individuals shape and are shaped by their interactions with one another and within social institutions are all areas of focus in the sequence. *(Prerequisite: SW 250 and a biology course, may be taken concurrently with SW 270; must be completed before SW 498) Either semester*

SW 321 Human Behavior and the Social Environment II (3 crs.)

This course is a continuation of SW 320 and examines human development from adolescence through old age. *(Prerequisite: SW 250, SW 270, SW 320) Either semester*

SW 328 Women and Social Services (3 crs.)

This course will focus on women in social services, both the clients and the workers. It will deal with issues and services particularly pertinent to women, including shelters for battered women, rape crisis centers, women's health centers, and the influence of women's studies on social welfare theory. This course is an elective course in the Women's Studies minor. *Either semester*

SW 330 Generalist Practice I (3 crs.)

This course initiates the study of entry-level generalist social work practice with all client systems and with particular attention to human diversity and oppressed populations. The topics covered: social work knowledge and values, agency role and function, the helping relationship, the problem-solving process through the phases of initial assessment, and special skills, e.g. communication management and interviewing. Approved for certification for Massachusetts School Adjustment Counselor. *(Prerequisite: SW 270, may be taken concurrently with SW 320) Either semester*

SW 333 Social Work with the Aged and Their Families (3 crs.)

The course affords the student an understanding of what it means socially, psychologically and physically—to be aging in our society. Theories and methods of problem-solving with the elderly are examined. The elderly's income, health, housing, social service and other needs are identified and analyzed as are the policies and programs to address these needs. *(Prerequisite: 6 credits in Behavioral Sciences or Health) Either semester*

SW 334 Intervention with Family Systems (3 crs.)

Students will learn to conceptualize personal and interpersonal phenomena from a family systems perspective, to think in terms of circular rather than linear causality, and to recognize patterns and sequences. Major theoretical family systems approaches will be presented, as well as basic intervention techniques. *Either semester*

SW 350 Social Welfare Policy (3 crs.)

This course follows the development of social welfare institutions and the societal response to human service needs. There is discussion of poverty and its effects on minority groups with special emphasis on Afro-Americans, Spanish-speaking, women and the aged. Students are helped to analyze social policy. *(Prerequisite: SW 250, SW 270 or consent of the instructor) Either semester*

* See page 73 for general information regarding course offerings.

School of Arts & Sciences

SW 398 Junior Year Fieldwork Practice (3 crs.)

The Junior Fieldwork practicum complements the student's academic work through a minimum of 90 hours of practical experience in a social work agency under professional supervision. The student is introduced to social work tasks while applying theory to actual social work situations. This experience is reinforced through a weekly seminar where theory and practice are integrated and student field experiences are shared. The department requires that SW 320 and SW 330 be taken prior to or concurrently with this practicum. Limited to students who have been formally accepted to the major.

SW 399 Special Topics in Social Work (3 crs.)

Various topics in Social Work will be offered from time to time. Topics will be announced prior to registration. May be taken more than once. (*Prerequisite: 9 hours in Behavioral Sciences*) Either semester

SW 400 Social Services in the Health Care Field (3 crs.)

The course will provide an historical overview of medical social work with emphasis upon the psychological and social aspect of medical care. A variety of health care settings will be analyzed in terms of social work role, treatment approaches, resource finding and interdisciplinary work. Students will be given an understanding of how both acute and chronic illness affect the patient, family and community with emphasis upon such variables as age, sex, ethnicity, and duration and nature of condition. (*Prerequisite: At least 6 hours at 300, 400 level Behavioral Sciences or Health. Open to declared majors in Behavioral Sciences or Health*) Fall semester

SW/HE 403 Interdisciplinary Approaches to the Delivery of Health Services (3 crs.)

A wide range of interdisciplinary health team approaches will be analyzed. The field component is observational and will provide insight into the pragmatic realities of a health team. This course will be a first exposure to the theoretical and experiential dynamics of interdisciplinary approaches to delivery of health services. Disciplines involved include social work, health, psychology nursing and medicine. For graduate credit only. (*Prerequisite: 6 credits in Health and Social Work or Health-related areas*) Offered alternate years in Spring

SW 415 Social Services in Alcohol and Substance Abuse (3 crs.)

The course provides an overview of the problem of alcoholism, and the various programs that deal with the problem. It has been designed primarily for students who have an interest in the area of alcoholism and substance abuse and either may be considering a career in treatment for alcoholism or may merely wish to expand their area of competence. The course focuses on the central issues of causation, resources, management and treatment from a social work perspective. Students need to understand how the various programs and human service systems are planned, organized and evaluated. Students are introduced to theory and practice in relation to the functions that form the basis of various programs and services. Agency visits will be made. (*Prerequisites: SW 250 and SW 270*) Either semester

SW 431 Generalist Practice II (3 crs.)

This course will integrate knowledge of assessment skills and intervention approaches that will enable client systems to adapt more effectively with both internal social and political pressures in their life situations. Strategies will be drawn from generalist practice with particular emphasis upon women, minorities, and other underserved populations. (*Prerequisites: SW 321, SW 330*) Either semester

SW 432 Generalist Practice III (3 crs.)

This course deepens and expands generic social work skills and applies them to macro-level analysis and intervention in organizations and communities. (*Prerequisite: SW 330 May be taken concurrently with SW 321*) Either semester

SW 435 School Social Work—History, Theory and Issues (3 crs.)

The course will begin by examining the school as an ecological unit created to educate and socialize children. The evolution of school social work within this system will be traced from its inception in 1906 to the present. The three traditional models of school social work will be explored: home/school linkage, direct service provider, and team member. Issues of confidentiality, team building and assessment and referral will be discussed. The student will acquire an understanding of the application of the social work methods of casework, groupwork, and community organization as practiced in the school with well children in crisis and with special populations and problems. Approved for certification for Massachusetts School Adjustment Counselor. (*Prerequisites: SW 250 and SW 330 for Social Work majors; SW 250 and Instructor's consent for non-majors*) Either semester

SW 437 Social Work with Multicultural and Multiethnic Families (3 crs.)

This course examines social work practice with culturally and racially diverse families through study of relevant theory, case studies and the identification of personal issues and values. This course also examines contemporary issues as they affect social service delivery to families made vulnerable because of ethnic, cultural or racial biases. (*Prerequisite: 9 hours in Behavioral Sciences*)

SW 440 Research Methods in Social Work (3 crs.)

This course is designed to help social work students develop an understanding of social research methods and to equip them with the tools to measure the effectiveness of their practice and the quality of the services provided by human service agencies. The ethics, politics and utility of social research methods in all aspects of social work practice are explored. Particular emphasis is placed on research methods and applications unique to social work such as single-subject design studies, human services program evaluation, and advocacy research. (*Prerequisite: SW 250, SW 270 and 9 hours in Behavioral Sciences*)

SW 498 Field Experience in Social Work (5 crs. for each semester)

The field experience provides opportunities for students to learn how to apply knowledge and to develop skills in direct services to clients under the direction of a qualified agency field instructor. A minimum of 400 hours is spent in a wide variety of community agencies from September-May of the senior year. This experience continues to build upon the practical sequence of SW 330, SW 431, and SW 432. A weekly seminar throughout the year allows students to integrate social work theory and practice into a unified whole as part of their development as beginning professional practitioners. (*Prerequisites: Social Work Majors only and SW 398*) Either semester

SW 499 Directed Study in Social Work (1-3 crs.)

Open to juniors and seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits. (*Prerequisite: consent of the department; formal application required*) Either semester

Department of Sociology and Anthropology

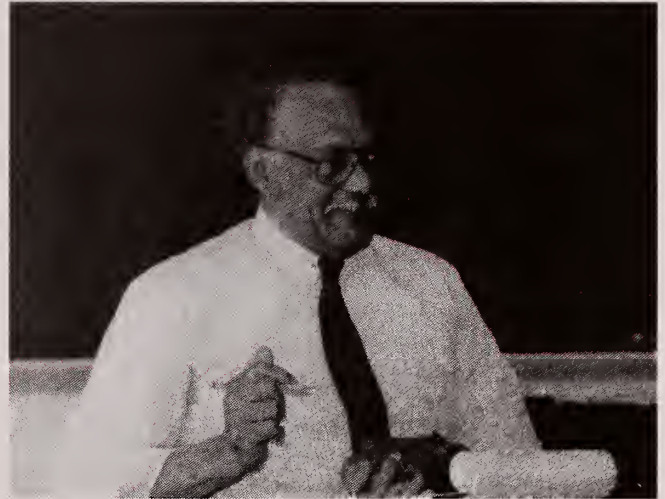
Faculty

Chairperson: Professor Donald Armfield

Professors: Walter Carroll, Sandra Faiman-Silva,
Curtiss Hoffman, William Levin,
Abraham Thomas

**Associate
Professor:** Richard Henry

**Assistant
Professor:** Kim MacInnis



Undergraduate Programs

Anthropology

Bachelor of Arts/Bachelor of Science

A major in Anthropology provides students with an understanding of societies and cultures throughout the world. Specifically: 1) A major prepares students for teaching careers in either elementary or secondary schools and/or for college teaching or research. 2) It prepares students for careers in industry. 3) It offers a general background to students who are interested in jobs with state or federal agencies. 4) It provides a background for students to become educated, well informed adults. Majors are encouraged to continue study for advanced degrees (M.A. or Ph.D.) because those individuals are more likely to be selected for positions in the field.

A concentration in public archaeology is designed to provide the basic knowledge and training necessary for careers in contract archaeology and cultural resource management. The program introduces students to the history of the development of public archaeology and to the study of federal, state and local legislation protecting archaeological resources. The concentration relies heavily on cognate courses in geology and geography.

Anthropology Major

a) Cultural Anthropology Concentration

AN 100 Introduction to Cultural Anthropology
AN 101 Introduction to Physical Anthropology
AN 103 Introduction to Archaeology
AN 400 Seminar: Anthropological Theory

Note: EN 323 Introduction to Linguistics may be substituted for AN 101 or AN 103

plus one course from:

AN 206 Native Cultures of North America
AN 209 Peoples and Cultures of Africa
AN 213 Latin American Peoples and Cultures
AN 321 Comparative Social Structures
SO 210 Society and Culture in Modern India
SO 214 Middle Eastern Societies
SO 217 East Asian Societies: China and Japan
SO 221 Religion and Society in Modern Asia

plus five other cultural anthropology courses, at least three of which must be at the 300 level or above. Students may take up to three credits in archaeology at the 200 level or above as part of this concentration.

Cognate requirement:

SO 403 Seminar: Social Data Analysis

b) Public Archaeology Concentration

AN 100 Introduction to Cultural Anthropology
AN 101 Introduction to Physical Anthropology
AN 103 Introduction to Archaeology
AN 206 Native Cultures of North America

School of Arts & Sciences

AN 328 Archaeology of North America
AN 400 Seminar: Anthropological Theory
AN 410 Public Archaeology
plus nine credits of field or laboratory work in archaeology
(any combination of AN 332, AN 403 and Directed Study or
Internship)
plus one other anthropology course

Cognate requirements:

SO 403 Seminar: Social Data Analysis
ES 100 Physical Geology

plus four courses from:

ES 101 Historical Geology
ES 102 History of the Earth
ES 194 Environmental Geology
ES 476 Sedimentology and Stratigraphy
GE 196 Environmental Geography
GE 216 Cartography
GE 317 Air Photo Interpretation—Remote Sensing
GE 307 Management and Preservation of the Natural
Environment

Double Major With Elementary Education, Early Childhood Education or Special Education

Students may choose a double major in Anthropology and Elementary Education, Early Childhood Education or Special Education for certification purposes. Appropriate advising materials with suggested course sequences are available.

Minor in Secondary Education

Students minoring in education must refer to the Department of Secondary Education and Professional Programs for specific teacher certification and program requirements.

Anthropology Minor

Anthropology minors are advised to take the following courses:

Any two of:

AN 100 Introduction to Cultural Anthropology
AN 101 Introduction to Physical Anthropology
AN 103 Introduction to Archaeology

plus any one of:

AN 206 Native Cultures of North America
AN 208 Anthropology of Women
AN 209 Peoples and Cultures of Africa
AN 213 Latin American Peoples and Cultures

plus any four other anthropology courses.

Sociology

Bachelor of Arts/Bachelor of Science

Human beings interact with other human beings and construct patterns of relationships, groups, classes, institutions, and societies. We are individuals but necessarily participate in and are shaped by the large number of relationships that constitute social reality. The sociological perspective focuses on these social relationships.

The objective in all courses is to provide the student with an understanding of how these social relationships arise, why they persist, what effects they have, how they maintain social order, or contribute to social change. This understanding is provided by means of classroom learning of the theories and methods of research used by the practitioners of sociology and/or by internship practices in the field, where the student is expected to apply or deepen classroom learning. This objective is designed to facilitate the student's entrance into the labor market or graduate school.

Sociology Major

SO 102 Introduction to Sociology
SO 400 Seminar: Social Theory
SO 402 Seminar: Research Methods in Sociology
SO 403 Seminar: Social Data Analysis
plus a minimum of seven other courses in sociology

Criminology Concentration

The Sociology Major with a concentration in Criminology is designed for students who are considering possible careers in the diverse area of the administration of justice. The program introduces and sensitizes students to the different dimensions and explanations of crime and delinquency, and provides analyses of structural sources and the legislative process involved in the formulation of the criminal law.

Criminology concentrators are required to take a six credit hour Field Experience in Sociology (SO 498). In order to register for the Field Experience, students must have completed at least 54 credits with a minimum 2.0 cumulative GPA. Students should consult the department on the procedures for applying for and setting up the Field Work placement. Please see the "Internship" under the *Undergraduate Academic Programs* section of this catalog.

*Sociology and Anthropology***Requirements:**

- SO 102 Introduction to Sociology
- SO 304 Social Stratification: Class, Status and Power in America
- SO 327 Deviance and Social Control
- SO 328 Criminology
- SO 400 Seminar: Social Theory
- SO 402 Seminar: Research Methods in Sociology
- SO 403 Seminar: Social Data Analysis
- SO 498 Field Experience in Sociology (6 crs.)

Any three of the following courses:

- SO 313 Family Violence
- SO 310 Women and Crime
- SO 333 Resolving Conflict
- SO 334 White Collar Crime
- SO 354 Sociology of Corrections
- SO 355 Juvenile Delinquency
- SO 384 Criminal and Delinquent Behavioral Systems
- SO 385 Victimology: Sociology of Victims
- SO 425 Comparative Crime and Deviance

Cognate requirements:

- HE 405 Drugs in Society
- PY 369 Psychology of Criminal Behavior

Third World Studies Concentration

Students selecting this concentration will study selected Third World societies; their institutions, social structure, development and changing place in the world.

Requirements:

- SO 102 Introduction to Sociology
- SO 104 Global Human Issues
- SO 220 Third World Societies
- SO 400 Seminar: Social Theory
- SO 402 Seminar: Research Methods in Sociology
- SO 403 Seminar: Social Data Analysis

One course from the following:

- SO 219 Population and Society
- SO 340 Sociology of Politics
- SO 335 Social Change

Three courses from among:

(at least one must have a SO prefix)

- AN 206 Native Cultures of North America
- AN 209 Peoples and Cultures of Africa
- AN 213 Latin American Peoples and Cultures
- SO 210 Society and Culture in Modern India
- SO 214 Middle Eastern Societies
- SO 217 East Asian Societies: China and Japan
- SO 221 Religion and Society in Modern Asia

Required cognate:

- AN 100 Introduction to Cultural Anthropology

Two courses from among a list of 23 electives from various departments. Consult the Department of Sociology and Anthropology for further information.

Double Major with Elementary Education, Early Childhood Education or Special Education

Students may choose a double major in Sociology and Elementary Education, Early Childhood Education or Special Education for certification purposes. Appropriate advising materials with suggested course sequences are available.

Sociology Minor

18 credits in Sociology as recommended by the department.

School of Arts & Sciences

Course Offerings*

Anthropology

AN 100 Introduction to Cultural Anthropology (3 crs.)

This course introduces basic anthropological concepts and methods of cultural analysis. The problems of ethnocentricity and human cultural variability in human societies of different times and places will be studied. Satisfies the GER in Behavioral Sciences. *Either semester*

AN 101 Introduction to Physical Anthropology (3 crs.)

This course covers the following areas: divisions of anthropology, theories and principles of evolution, primate and hominid evolution and behavior, origins of hominid physical and cultural development and concepts of racial variation. Satisfies the GER in Behavioral Sciences. *Either semester.*

AN 103 Introduction to Archaeology (3 crs.)

This course examines research methods, systems of data recording and analysis and reconstruction of cultural lifeways of past cultures. The conceptual bases of the study of the past are explored through material culture. Satisfies the GER in Behavioral Sciences. *Fall semester*

AN/SO 104 Global Human Issues (3 crs.)

This interdisciplinary course treats major world problems with particular emphasis upon those faced by non-Western peoples. The interdependence between economically developed and underdeveloped parts of the world will be explored according to such themes as collective versus individual good, short versus long-term planning and cooperation versus competition. Satisfies the GER in Non-Western Civilization. *Spring semester*

AN 110 Introduction to Folklore (3 crs.)

This course explores the meanings and subdivisions of folklore: myth, folktale, proverb, riddles and folklife. It covers the analysis of story elements, major folklore areas, and the role of folklore and folklife in society and culture. Satisfies the GER in Behavioral Sciences. *Either semester*

AN 111 Myth and Culture (3 crs.)

This course introduces the cross-cultural approach to world mythology. Myths of our own and other cultures will be analyzed using several theoretical approaches. Myth will be examined as a fundamental human function, necessary for the well-being of cultures. Satisfies the GER in Behavioral Sciences. *Offered alternate years.*

AN 206 Native Cultures of North America (3 crs.)

This cross-cultural course studies the tribal cultures of the United States, Canada and Mexico. Emphasis will be placed on developing an understanding of Native American cultural systems in their traditional settings and on the current status of Native American interaction with government policies and attitudes. Satisfies the GER in Non-Western Civilization. *Spring semester*

AN 208 Anthropology of Women (3 crs.)

This course will investigate the relative status of women cross-culturally in a range of non-western settings, including hunter-gatherer bands, horticultural societies, peasantry, nomadic pastoralists and contemporary industrial societies. Women will be examined as they relate to economic resources, political power and authority, kin and non-kin and in religion, myth and lore. Students will analyze conceptually and through cross-cultural data what is meant by sex roles, how they vary cross-culturally and how they are negotiated and maintained. Satisfies the GER in Non-Western Civilization. *Either semester*

AN 209 Peoples and Cultures of Africa (3 crs.)

A survey of the multiplicity of ways in which contemporary societies, rural and urban, arrange their ways of life in a rapidly changing Africa. Satisfies GER in Non-Western Civilization. *(Prerequisite: AN 100) Spring semester*

AN 213 Latin American Peoples and Cultures (3 crs.)

This course will investigate the culture, history and development of selected Latin American regions and their contemporary relations with the United States. Mexico/Guatemala and Central and South America will be studied by means of ethnographic and cross-cultural documents of the past and present which reveal changing conditions of society, land ownership, ethnicity and political allegiance. Satisfies the GER in Non-Western Civilization. *(Prerequisite: AN 100, SO 102, or consent of the instructor) Either semester*

AN 305 Culture Change (3 crs.)

This course focuses on the processes of culture change, intentioned and unintentioned, internal and external. It will explore reaction strategies of cultures toward imminent change. The course concludes with a consideration of how models can be applied to producing non-destructive, non-exploitative culture change. Formerly AN 205. *(Prerequisite: AN 100, AN 101, AN 103 or consent of the instructor) Offered once every three years*

AN 307 Anthropology of Religion (3 crs.)

The origins and development of religion in society; myth, ritual, magic, and religious specialists. Australian, African, and American Indian. Formerly AN 107. *Offered alternate years, fall semester*

AN 309 Anthropology of Art (3 crs.)

This course will consider particular art forms in their cultural contexts. It will begin with forms considered conventional by Western standards - painting and sculpture - and examine them in prehistory and in non-Western contexts. Then the artistic properties of crafts and other types of production not usually accepted as art will be studied: masks, pottery, tools, house plans, arrangements of objects, and ritual. The role and philosophy as well as the mystique of the artist will be contrasted in a number of contexts. The imposition of Western art ideology on native cultures, the creation of syncretic and tourist art will be used to epitomize the ongoing interests of anthropology of art. *Offered once every three years, spring semester*

AN/SO 314 Women in Myth and Lore (3 crs.)

This course will investigate females and the feminine in mythologies and folklore traditions cross-culturally. Native indigenous (African, Australian, South Pacific, Native American); classical (Greek, Egyptian, Roman); and Judeo-Christian mythologies will be analyzed, com-

* See page 73 for general information regarding course offerings.

Sociology and Anthropology

pared and contrasted. Students will explore mythology and story-telling traditions as they pertain to women and gender cross-culturally. (Prerequisite: AN 100, or AN 110, or AN 111, or ID 230, or consent of instructor.)

AN/SO 315 Ethnic Experience in America (3 crs.)

This course considers the role of ethnic background in personal and social relationships. The varying interpretations of ethnic culture—its formation and growth in America—are examined while each student looks into his or her personal heritage and the role of tradition in contemporary life. *Spring semester*

AN 319 Contemporary Native Americans (3 crs.)

This course will explore the problems faced by Native or indigenous peoples in the United States today. It will focus on issues of land, tribal recognition, poverty, treatment by government agencies and multinational corporations, and ethnic discrimination. It will also address the ongoing changes in Native responses, including the American Indian Movement, the revival of native spiritual life, and the problem/opportunity of casino gambling. (Prerequisites: AN 100 and AN 206.) *offers alternate years.*

AN 328 Archaeology of North America (3 crs.)

The development of prehistoric and proto-historic Native American cultures. Cultural dynamics of hunting-gathering and maize agriculture. Theories of the peopling of the continent will be evaluated. (Prerequisite: AN 103 or consent of the instructor) *Offered alternate years, fall semester*

AN 330 Medical Anthropology (3 crs.)

The course concentrates on health, illness, and healing in cross-cultural perspective. It will examine ways in which culture mediates ideas of physical well-being, and will be aimed at dispelling belief in the absolute truth of medical dogma, teaching students to think outside their own cultural biases. It begins with a consideration of body image in a range of different cultures and then proceeds to the varying rationales for normal function and for dysfunction. The healing process as ritual and as scientific procedure, including the theory and practice of healing in different cultures, figures into the course as does the training and outlook of healers—doctors, priests, shamans, nurses, midwives, and others. Finally, the medical systems of several cultures, ancient and modern, industrialized and pre-industrial are compared. *Offered alternate years*

AN 332 Practicum in Field Archaeology (1-3 crs.)

Experiential training in the practical skills of field archaeology. Direction in site survey, excavation tactics and strategy, fieldwork supervision, methods of sampling and on-site analysis. Introduction to laboratory work: cataloguing, recognizing lithic materials, metric measurement, and flotation of organic samples. (Prerequisite: AN 103 (to be taken concurrently), AN 403, or consent of the instructor) *Fall semester*

AN 340 Myths and Peoples of the Ancient Near East (3 crs.)

This course will explore the dimensions of myth as they relate to the cultural life of the peoples of the Ancient Near East: the Egyptians, the Sumerians, the Babylonians and Assyrians, the Hittites, the Phoenicians and the Hebrews. Emphasis will be placed on understanding the context out of which the myths arose, and the ways in which they both de-

scribed and conditioned the cultural realities to which they related. (Prerequisite: AN 100 or AN 110 or AN 111 or AN 307) *Offered every three years*

AN 399 Special Topics in Anthropology (3 crs.)

Various special topics of current interest in anthropology will be offered from time to time. Topics will be announced before pre-registration. May be taken more than once but only six credits will be counted toward the first 30 hours of the major. (Prerequisite: One anthropology course or consent of the instructor)

AN 400 Seminar: Anthropological Theory (3 crs.)

This course is a survey of the foundations of cultural and archaeological theory, including cultural evolutionism, structuralism, American historical-particularism, British functionalism and structural-functionalism, French structuralism, and current directions in American, European and Third World anthropological thought. Theories of archaeology will also be examined, including traditional evolutionary perspectives; the New Archaeology, and contemporary critiques, drawing upon social systems analysis. (Prerequisites: AN 100 and AN 101 or AN 103) *Offered alternate years*

AN 403 Archaeological Field Excavation in Prehistoric Sites in New England (2-6 crs.)

Intensive training in excavation techniques, field recording, and primary cataloguing and analysis of archaeological materials. (Prerequisite: consent of the instructor) *Offered in summer only (Formerly AN 303)*

AN 404 Seminar: Culture and Consciousness (3 crs.)

This course is an experiment in the study of how consciousness, and particularly the idea of the unconscious, is construed and constructed in various cultural contexts. We will work towards an understanding of consciousness in cultural context as a means of understanding cultures at their deepest levels, including our own. An important component of the course will be class dreamwork sharing sessions. (Prerequisites: AN 100, PY 100 and any one of the following: AN 110, AN 111, AN 307)

AN/HI 409 Mesoamerican Societies and Cultures (3 crs.)

This course examines some of the major societies and culture areas in Mesoamerica (Mexico and Central America) from ten thousand years before present up to and through the early conquest period (the sixteenth century). Cultures to be examined, including the Olmec, Teotihuacan, Toltecs, Aztecs and Maya. Issues of daily life, family, gender roles, religion, trade, warfare, politics, culture, and reactions to conquest will be considered. (Prerequisites: AN 100 or AN 213)

AN 410 Public Archaeology (3 crs.)

An introduction to Public Archaeology, its history of development. Emphasis will be placed on the basic knowledge and training necessary for careers in contract archaeology and cultural resource management: 1) to introduce students to the history of the development of public archaeology; 2) to study the federal, state, and local legislation protecting archaeological resources; 3) to provide administrative training for doing contract archaeology - contract and research proposal development, report writing, Environmental Impact Statement interpretation - and to provide a basic background for cultural resource management careers. (Prerequisite: AN 103 or consent of the instructor) *Offered alternate years, spring semester*

School of Arts & Sciences

AN 417 Seminar: She/He "Two Spirits": Gender Cross-Culturally (3 crs.)

This course introduces students to cross-cultural constructions of gender. Gender and sexuality are differentiated, and students explore how gender is a cultural construct which varies cross-culturally. Students will explore a range of gender expressions, including homosexual males, lesbians, transgendered, bisexuals, and Native American Two Spirits. Issues of masculinity, femininity, and alternate genders will be examined in Euro-American, Latin American, Asian, Native American and other cross cultural settings. (*Prerequisites: AN 100 or ID 230*)

AN 420 Visual Anthropology (3 crs.)

This course is grounded in interpretive and semiotic theories and examines the uses of images for cultural documentation, interpretation, and analysis. Students will examine the roles of objectivity, ideology, and perspective in the production and interpretation of visual images in motion and still photography. Emphasis will be on how visual images represent the cultural, vis-a-vis gender, social class, ethnicity, and socio-cultural context. (*Prerequisite: AN 100.*) Offered alternate years, spring semester.

AN 425 Seminar: Problems of New England Archaeology (3 crs.)

This is an intensive seminar course in local pre-Contact and post-Contact archaeology. It will explore the cultural and environmental evidence for settlement patterns in the Northeastern United States and adjacent provinces of Canada. Important considerations will include how we know what we think we know, and why we do not currently know more about the lifeways of the past inhabitants of this area. Individual research papers will be assigned. This course may be used in place of any of the cognate courses required for the Public Archaeology concentration except for SO 403 and ES 100. (*Prerequisites: AN 103, AN 206, and AN 328.*) Offered every third year.

AN/SO 426 Seminar: New England Ethnic and Regional Communities (3 crs.)

This course will explore theories of ethnic persistence and change as they pertain to New England's ethnic and social communities, such as Cape Verdeans, Asians, African Americans, Italians, Jews, and Homosexuals. Cultural traditions, social institutions, and changing beliefs of New England's ethnic and regional communities will be examined through critical analyses of relevant cultural materials, including sociological data, folklore, oral traditions, celebrations, and the media. (*Prerequisites: AN 100 or SO 102, and AN/SO 315*) Offered every third year.

AN 435 Seminar: Global Feminism (3 crs.)

This course will explore the range and content of women's activism, agency, and feminist consciousness-raising globally around a range of issues, including education, health care, sexual politics, political participation, the division of labor and labor force participation, self-determination and participation in local feminist movements. Students will explore women's feminism and activism globally, the relationship of local cultural practices to women's and feminist movements, and what women are doing to work as agents of self-empowerment and self-determination globally. (*Prerequisite: One of the following: AN/SO 104, AN 100, SO 102, or ID 230*)

AN 498 Field Experience in Anthropology (3-15 crs.)

The field experience provides an opportunity for students to apply

methods of fieldwork in ongoing societies; to design field studies; to learn methods for collection and analysis of empirical data; and to participate in experimental field projects. (*Prerequisite: consent of the instructor; formal application required*)

AN 499 Directed Study in Anthropology (1-3 crs.)

Open to juniors and seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits. (*Prerequisite: consent of the department; formal application required*)

Other Approved Courses:

AN 304 Personality and Culture

AN 306 Urban Anthropology

AN 311 The Emergence of Cities

AN 321 Comparative Social Structures

AN 322 War, Peace and Culture

AN 333 Archaeological Theory

AN 345 Cooperation in Cultures

AN 510 Symbolic Anthropology

AN 520 Ethnographic Film

AN 525 Problems of New England Archaeology

AN 590 Seminar: Community Cultures in Southeastern Massachusetts

AN 502 Research (credit to be arranged)

Original research undertaken by the graduate student in his field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

AN 503 Directed Study (credit to be arranged)

Designed for the graduate student who desires to study selected topics in a specific field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

AN 526 Cultural Resource Management (3 crs.)

For graduate students seeking employment in the field of conservation archaeology. A detailed survey of the techniques and importance of cultural resource management, including archival research, field strategies, conservation of finds, report writing, and archaeological legislation. Individual research papers will be assigned. (*Prerequisite: AN 103, AN 333, AN 403, AN 410 or equivalents*)

Sociology

SO 102 Introduction to Sociology (3 crs.)

This course covers such areas as social structure, basic human institutions, analysis of social processes and major social forces. Satisfies the GER in Behavioral Sciences. *Either semester*

SO 103 Social Problems (3 crs.)

Contemporary social problems which are reflected in the behavior of individuals, but whose origins and causes lie outside of individuals. Topics treated will include drug abuse, crime, juvenile delinquency, divorce and other family problems, mental illness and other health problems, social class, and selected social issues. Satisfies the GER in Behavioral Sciences. *Either semester*

Sociology and Anthropology

SO/AN 104 Global Human Issues (3 crs.)

This interdisciplinary course treats major world problems with particular emphasis upon those faced by non-Western peoples. The interdependence between economically developed and underdeveloped parts of the world will be explored according to such themes as collective versus individual good, short versus long-term planning and cooperation versus competition. Satisfies the GER in Non-Western Civilization. *Spring semester*

SO 212 Discrimination and Prejudice (3 crs.)

This course is a study of the relationship between majority and minority groups in America, with attention to the domination of categories of people on the basis of their race, sex, age, ethnicity and/or religion. Theories and data will be presented concerning the development, maintenance and operation of discrimination and prejudice, and the relationship between them. *Fall semester*

SO 214 Middle Eastern Societies (3 crs.)

This course introduces the cultures and social structures of Middle Eastern Societies, with a focus on social change in the region. Topics covered include the role of Islam, patterns of leadership, the distribution of wealth and power, family patterns, the position of women, and the nature of work. Satisfies the GER in Non-Western Civilization. *Every semester*

SO 217 East Asian Societies: China & Japan (3 crs.)

This course examines the cultural and social structure of traditional and modern China and Japan. The course will focus on topics such as work and economy, rural-urban contrasts, family and kinship, the position of women, and the relationships between state and society. The course will conclude with an assessment of the positions of these two societies in the contemporary world. Satisfies the GER in Non-Western Civilization (*Prerequisite: SO 102 or AN 100*) *Spring semester*

SO 219 Population and Society (3 crs.)

This course describes the mutual influence of demography and social structure. Trends in population growth and their effect on industrialization and urbanization will be covered in the context of developed and Third World nations. Satisfies the GER in Behavioral Sciences. *Alternate years*

SO 220 Third World Societies (3 crs.)

This course introduces the sociological aspects of development in the Third World and the role of the West in that process. Industrialization, urbanization, education, the "Green Revolution," population growth, class structure, political structure, etc., are related to development. Satisfies the GER in Non-Western Civilization. *Fall semester*

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. *Either semester*

SO 304 Social Stratification: Class, Status and Power in America (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. *Every semester*

SO 305 Sociology of Education (3 crs.)

This course examines schools as social organizations, the culture of schools, the relationships between education and social stratification, and the sociology of educational reform. All levels of education are considered, from kindergarten through higher education. *Fall semester*

SO 306 Cities and People: Urban Sociology (3 crs.)

This course examines cities and urbanization in comparative perspective. It will also focus on changing urban social structures, the nature of city life, urban planning, and grassroots participation in urban change. (*Prerequisite: SO 102*) *Offered alternate years, spring semester*

SO 307 Medical Sociology (3 crs.)

Concepts of health, illness, disease, and health care analyzed from the perspectives of patient (client), practitioner and relevant third parties. Medicine will be analyzed as a social system, with attention to factors in the physical and sociocultural environment, and case materials will be drawn from non-Western as well as Western societies. (*Prerequisite: SO 102, or consent of the instructor*) *Offered alternate years, fall semester*

SO 310 Women and Crime (3 crs.)

This course examines women and crime from sociological and criminological perspectives. The course will cover a wide variety of topics related to women and crime, including crimes against women, crimes perpetrated by women, women in prison, and women as criminal justice system officials. The course will closely examine violent crimes against women including rape, murder, and battering. It will also focus on battered women who kill their attackers. Other important topics include feminist criticisms of mainstream criminology and the emergence of feminist theories in criminology. (*Prerequisite: SO 102*) *Fall semester*

SO 313 Family Violence (3 crs.)

This course examines violence in the family from sociological and criminological perspectives. It also examines the response of the criminal justice system to family violence. The course examines the extent, types, and causes of violence in families and domestic units, and will also analyze the reasons why most family violence is directed against women and children. The course considers recommendations for family intervention and policies for the prevention of family violence, as well as the social and legal implications of those recommendations. (*Prerequisite: SO 102*) *Alternate spring semesters*

SO/AN 314 Women in Myth and Lore (3 crs.)

This course will investigate females and the feminine in mythologies and folklore traditions cross-culturally. Native indigenous (African, Australian, South Pacific, Native American); classical (Greek, Egyptian, Roman); and Judeo-Christian mythologies will be analyzed, compared and contrasted. Students will explore mythology and story-telling traditions as they pertain to women and gender cross-culturally. (*Prerequisite: AN 100, or AN 110, or AN 111, or ID 230, or consent of instructor.*)

SO/AN 315 Ethnic Experience in America (3 crs.)

This course considers the role of ethnic background in personal and social relationships. The varying interpretations of ethnic culture—its formation and growth in America—are examined while each student looks into his or her personal heritage and the role of tradition in contemporary life. *Spring semester*

School of Arts & Sciences

SO 326 Social Gerontology - Sociology of Aging (3 crs.)

This course will focus on aging in America as a social problem. Topics covered will include reasons for the view of aging as a problem, the impact of aging on individuals and society, sociological theories of aging, and proposed ways of alleviating or eliminating aging as a problem. (Prerequisite: SO 102) Spring semester

SO 327 Deviance and Social Control (3 crs.)

This course examines deviant acts with an eye toward understanding social order and change. Topics covered include the types and causes of deviance, the social conditions and elements of deviant acts, and the effects of deviance and mechanisms for prevention, punishing, and rehabilitating deviant individuals and groups. (Prerequisite: SO 102, or consent of the instructor) Every semester

SO 328 Criminology (3 crs.)

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. (Prerequisite: SO 102, or consent of the instructor) Every semester

SO 329 Public Opinion and Mass Media (3 crs.)

Principles of mass communication and public opinion will be discussed from the point of view of the source of a message, the message itself, the audience, the channel through which the message proceeds and the effect of the message. (Prerequisite: SO 102, or consent of the instructor) Offered once every three years

SO 330 Woman's Roles: Sociology of Sex and Gender (3 crs.)

An analytical study of the relation of sex to power and influence in society. Differentiation in sex roles as affected by the economy and reinforced by other institutions. New alternatives for women. Spring semester

SO 332 Sociology of Organizations (3 crs.)

Analysis of the emergence, structure, function, culture and social significance of complex organizations. Emphasis will be placed upon the results of research in hospitals, schools, prisons, and military and industrial organizations. Attention will be given to informal associations and organizational change. (Prerequisite: SO 102, or consent of the instructor) Spring semester

SO 333 Resolving Conflict (3 crs.)

An introduction to the sociology of alternate conflict resolution. The course studies the structure and process of social conflict, and analyzes alternate dispute resolution processes, including negotiation, mediation, and the Ombudsman. Will examine the role of the mediator in depth. (Prerequisite: SO 102, or consent of the instructor) Offered alternate years.

SO 334 White Collar Crime (3 crs.)

Broadening the definition of crime, this course will study the behavioral systems involved in the commission of white collar crimes in complex structures, such as government bureaucracies, multi-national corporations, and underground systems. The modern institutional factors—political and social—permitting or restricting the commission of such crimes will be investigated. Specifically, the performance of the criminal justice system will be examined. (Prerequisite: SO 102) Spring semester

SO 340 Sociology of Politics (3 crs.)

A study of the state, political practices, power, and theories in the field. The emphasis is on the sociological conditions under which the above phenomena evolve. (Prerequisite: SO 102, or consent of the instructor) Offered alternate years, spring semester

SO 350 Sociology of Work (3 crs.)

An analysis of the occupational system as affected by the "non-economic" institutional factors. Changes in the occupational structure and the class structure; employers and trade unions; managers and workers; work situation and the life situation; professionalization and "white collar unionism." Spring semester

SO 354 Sociology of Corrections (3 crs.)

Analysis of the social structures and processes involved in dealing with individuals who have been designated as offenders of criminal law. Probation, prison, parole, programs of prevention and rehabilitation. (Prerequisite: SO 328) Fall semester

SO 355 Juvenile Delinquency (3 crs.)

Analysis of the nature and types of juvenile behavior that violates law; the mechanisms of defining such behavior as delinquent; and the relationship between delinquency and the social situations of juvenile offenders. (Prerequisite: SO 102) Fall semester

SO 360 Feminist Theory in Sociology (3 crs.)

This course introduces students to Feminist Theory in sociology and social science. It also covers the history of women in social theory as well as historical and contemporary contributions by women theorists. Feminist theories of human behavior and social life will be analyzed and compared to other theories. (Prerequisite: SO 102 or consent of instructor.) Offered alternate years, fall semester

SO 384 Criminal and Delinquent Behavioral Systems (3 crs.)

A study of behavioral systems in the commission of crime and delinquency. Such systems include institutional as well as more informal social structures and patterns of behaviors, including the normative rationalizations that support and legitimize criminal and delinquent behaviors in society. (Prerequisite: SO 328) Offered every three years

SO 399 Special Topics in Sociology (3 crs.)

Various special topics of current interest in sociology will be offered from time to time. Topics will be announced before registration. May be taken more than once but only three (3) credits will be counted toward the first 30 hours in the sociology major. (Prerequisite: SO 102)

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. (Prerequisite: SO 102 and three additional sociology courses) Either semester

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 procedures, nature of sociological variables. For majors in sociology or behavioral sciences. (Prerequisite: SO 102 and three additional sociology courses) Either semester

Sociology and Anthropology

SO 403 Seminar: Social Data Analysis (3 crs.)

This course introduces students to computer-based, quantitative data analysis. The course focuses on the major statistical techniques used in sociology and anthropology and will emphasize data analysis in the context of substantive research problems. Topics covered include: microcomputer-based data analysis packages, choosing appropriate statistics, interpreting statistical results, and presenting research findings. (Prerequisites: Either SO 102 and SO 402 or AN 100 and AN 103) Either semester

SO 405 Seminar: The Police (3 crs.)

This seminar allows participants to explore and investigate current issues and themes relating to the police. As a means of enhancing sensitivity and levels of awareness, a comparative approach is utilized. The seminar format provides a forum for the discussion of those issues and themes while at the same time allowing the responsible student to actively participate in and be involved in the educational process. This will be accomplished by significant and active student input in exploring selected police issues. (Prerequisites: SO 328 and SO 402) Offered alternate years, fall semester

SO 425 Comparative Crime and Deviance (3 crs.)

This course examines crime, law, and deviance in comparative perspective. Among the topics covered will be the logic of comparative research, problems of cross-national data, violent crime, economic and political crime, transnational corporate crime, underdevelopment and crime, social control and conflict resolution, and criminal justice and penal policies. The course also focuses on crime in relation to age, gender, race, and class. The comparative materials are used to reflect on problems of crime and the criminal justice system in the United States. (Prerequisite: SO 102, three additional sociology courses, or consent of the instructor) Alternate spring semesters

SO/AN 426 Seminar: New England Ethnic and Regional Communities (3 crs.)

This course will explore theories of ethnic persistence and change as they pertain to New England's ethnic and social communities, such as Cape Verdeans, Asians, African Americans, Italians, Jews, and Homosexuals. Cultural traditions, social institutions, and changing beliefs of New England's ethnic and regional communities will be examined through critical analyses of relevant cultural materials, including sociological data, folklore, oral traditions, celebrations, and the media. (Prerequisites: AN 100 or SO 102, and AN/SO 315) Offered every third year.

SO 498 Field Experience in Sociology* (3-15 crs.)

The field experience provides an academic experience in which the student contributes to the ongoing organizational process while learning to apply sociological theories to observations of structure, function and process in a particular institution. (Prerequisite: consent of the department; formal application required) Either semester

SO 499 Directed Study in Sociology* (1-3 crs.)

Open to juniors and seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits. (Prerequisite: consent of the department; formal application required) Either semester

SO 510 Urban Community Analysis (3 crs.)

The changing structure and dynamics of urban social organization in the context of modernization and urbanization. Emphasis upon cities and metropolitan areas in America. (Prerequisite: A minimum of three sociology acceptable to the department or consent of the instructor.) Offered every third year.

Other Approved Courses:

SO 108 Sociology of Religion

SO 210 Society and Culture in Modern India

SO 221 Religion and Society in Modern Asia

SO 325 Sociology of Small Groups

SO 335 Social Change

SO 385 Victimology: Sociology of Victims

SO 401 Contemporary Sociological Theory

SO 497 Research

SO 501 Graduate Seminar in Sociological Theory

SO 502 Research

SO 503 Directed Study

SO 504 Graduate Seminar in Sociological Research Methodology

SO 506 Theories of Race and Ethnic Relations

SO 508 Social Stratification in Comparative Perspectives

SO 514 Theories of Social Deviance

SO 516 Sociology of Sex and Gender

SO 518 Sociology of Aging

SO 520 Sociological Analysis of Small Groups

SO 528 Seminar: Sociology of Education

SO 530 Seminar in Society, Culture, and Personality

SO 580 Special Topics in Social Research Techniques

SO 585 Special Topics in Sociological Theory

*No more than six hours of any combination of SO 498 and SO 499 may be counted toward the first 30 hours of the sociology requirements for a major.



School of Education and Allied Studies

Elementary and Early Childhood Education

Dr. Mary Lou Thornburg

Acting Dean, School of Education and Allied Studies

Movement Arts, Health Promotion, and Leisure Studies

Academic Departments

Elementary and Early Childhood Education

Dr. John Marvelle, Chairperson

Movement Arts, Health Promotion, and Leisure Studies

Dr. Marcia Anderson, Chairperson

Secondary Education and Professional Programs

Secondary Education and Professional Programs

Dr. Mary Frances Zilonis, Chairperson

Special Education and Communication Disorders

Special Education

Dr. Lisa Battaglino, Chairperson

Counseling

Academic Programs

Clinical Master's

Dr. Robert Frederick, Coordinator

Communication Disorders

Dr. Sandra Ciocci, Coordinator

Counseling

Dr. John Calicchia, Coordinator

Early Childhood Education

Dr. John Marvelle, Coordinator

Educational Leadership and Administration

Dr. Joanne Newcombe, Coordinator

Elementary Education

Dr. Maureen Moir, Coordinator

High School/Middle School

Dr. Charles Robinson, Coordinator

Instructional Technology

Dr. Mary Frances Zilonis, Coordinator

Library Media

Dr. Mary Frances Zilonis, Coordinator

Movement Arts, Health Promotion, and Leisure Studies

Dr. Marcia Anderson, Coordinator

Reading

Dr. Ruth Farrar, Coordinator

Special Education

Dr. Tracy Baldrate, Coordinator

Educational Leadership and Administration

Instructional Technology

Library Media

Burnell Campus Laboratory School

CAGS in Education

School of Education Offices

Office of Certification

Bridgewater State College

The School of Education and Allied Studies offers undergraduate and graduate programs for the professional preparation of early childhood, elementary, middle and high school teachers, as well as for specialized positions in school and community-based organizations and agencies. The school also provides service to the schools, community organizations and agencies of the region. The school conducts an on-going review of professional standards and requirements in order to respond to the changing needs of the profession. Graduates of programs leading to provisional certification with advanced standing are ready to enter the profession of teaching. During advanced clinical degree programs leading to standard certification and other graduate course work, professionals strengthen their leadership abilities and their commitment to lifelong learning.

The Burnell Campus School provides education majors and students throughout the college with practical experiences which complement the theoretical background available in more formal study. Extensive field experiences in schools and agencies off campus further contribute to the development of meaningful linkages between study and practice. Procedures and guidelines are implemented to ensure that high quality standards are maintained in field-based experiences and that students have experiences working in settings with diverse populations of children and youth.

Students following the curricula leading to a Bachelor of Science in Education degree are prepared as Pre-School, Elementary School, or Special Needs Teachers. Students majoring in Early Childhood Education, Elementary Education, or Special Education must complete an Arts and Sciences major, as well as a major in the School of Education and Allied Studies. Students majoring in most curricula leading to a Bachelor of Arts or a Bachelor of Science degree may select a minor in Secondary Education which prepares them for Middle School and/or High School Teaching. Students majoring in physical education earn a Bachelor of Science or Bachelor of Arts degree.

Undergraduate Programs

Majors in:

- Early Childhood Education
- Elementary Education
- Physical Education (one may concentrate in):
 - Athletic Training
 - Coaching
 - Exercise Science/Health Fitness

Motor Development & Therapy/Adapted Physical Education Recreation
Teacher Certification in Physical Education (Pre-K-9)
Teacher Certification in Physical Education (5-12)
Special Education (One may concentrate in):
Communication Disorders

Minors in:

- Communication Disorders
- Coaching
- Dance
- Exercise Physiology
- Health Education (5-12) Teacher Certification
- Health Education (Pre-K-9) Teacher Certification
- Health Promotion
- Health Resources Management
- Special Education

Secondary Education or Middle School Education with majors, concentrations, or options in:

- | | |
|-------------------------------------|-----------------------|
| <i>Art (5-12)</i> | <i>History</i> |
| <i>Biology</i> | <i>Mathematics</i> |
| <i>Chemistry</i> | <i>Music (5-12)</i> |
| <i>Communication and</i> | <i>Physics</i> |
| <i>Performing Arts (All levels)</i> | <i>Social Studies</i> |
| <i>Earth Sciences</i> | <i>Spanish</i> |
| <i>English</i> | |

Middle School Generalist with a major in an Arts and Science area:

- Art (Pre-K-9)
- Music (Pre-K-9)

Post Baccalaureate and Graduate Programs

Post baccalaureate programs leading to provisional certification with advanced standing are offered in:

- Early Childhood Education
- Elementary Education
- Health Education (Pre-K-9) (5-12)
- Physical Education (Pre-K-9) (5-12)
- Secondary Education (Middle School/High School)
- Special Education

Graduate curricula leading to the master's degree and Certificate of Advanced Graduate Study (CAGS) are offered in the following fields:

*School of Education & Allied Studies**Master's Programs*Master of Arts in
Teaching*Consult office of:*Secondary Education
and Professional Programs (in
conjunction with several of the
departments in the School of
Arts and Sciences, and the
Department of Movement Arts,
Health Promotion and Leisure
Studies).*Master of Education in:*
Counseling*Consult office of:*Secondary Education and
Professional Programs
Elementary and Early Education
Childhood Education

Early Childhood

Educational Leadership

Secondary Education and
Professional Programs

Elementary Education

Elementary and Early Childhood
Education

Health Promotion

Movement Arts, Health
Promotion and Leisure Studies

Instructional Technology

Secondary Education and
Professional Programs

Library Media Studies

Secondary Education and
Professional Programs

Reading

Elementary and Early Childhood
Education

Special Education

Special Education and
Communication Disorders*Master of Science in:*
Physical Education*Consult office of:*Movement Arts, Health
Promotion and Leisure Studies*Post Master's Programs:*
Certificate of Advanced
Graduate Study (CAGS
in Education) -*Consult office of:*Concentration in
Educational Leadership
Concentration in
ReadingSecondary Education and
Professional Programs
Elementary and Early
Childhood Education**Certification of Educational Personnel**

The School of Education and Allied Studies, through its departments and committees, offers the following state approved programs leading to Massachusetts certification and eligibility for certification in participatory states and territories through the Interstate Certification Contract. Information on undergraduate and graduate programs leading to certification is found in appropriate departmental sections.

Certificates offered:

Early Childhood Teacher (Pre-K-3)
Elementary School Teacher (1-6)
Middle School Teacher (5-9)
Teacher of Visual Art (Pre-K-9) (5-12)
Teacher of Biology (5-9) (9-12)*
Teacher of Chemistry (5-9) (9-12)*
Teacher of Communication and Performing Arts (all levels)
Teacher of Earth Science (5-9) (9-12)*
Teacher of English (5-9) (9-12)
Teacher of Foreign Language (5-12)
Teacher of Health Education (Pre-K-9) (5-12)
Teacher of History (5-9) (9-12)
Teacher of Mathematics (5-9) (9-12)
Teacher of Music (Pre-K-9) (5-12)
Teacher of Physical Education (Pre-K-9) (5-12)
Teacher of Physics (5-9) (9-12)*
Teacher of Social Studies (5-9) (9-12)
Teacher of Reading (All Levels)
Teacher of Students with Special Needs (Pre-K-9) (5-12)
Instructional Technology Specialist (All levels)
Library Media Specialist (All Levels)
School Guidance Counselor (Pre-K-9) (5-12)
Administrator of Special Education (All Levels)
School Principal/Assistant School Principal (Pre-K-6) (5-9) (9-12)
School Business Administrator (All Levels)
Supervisor/Director (Various Levels)
Superintendent/Assistant Superintendent

*Students completing these certificates may also elect to seek Teacher of General Science by completing some additional course work.

Professional Certification

Students who wish to be elementary, early childhood, or special education teachers are required to select a major in elementary, early childhood or special education and a major in the liberal arts or sciences. All teachers certified by the Commonwealth of Massachusetts are required to have a major in the liberal arts or sciences. The following majors meet the arts and sciences requirement at Bridgewater State College:

Anthropology	Mathematics
Art	Music
Biology	Philosophy
Chemistry	Physical Education
Computer Science	Physics
Earth Science	Political Science
Economics	Psychology
English	Sociology
Geography	Spanish
History	Speech Communication

Bridgewater State College

Students should consult with both their Arts and Sciences adviser and their Education adviser each semester (with a final check the semester prior to their last semester) to insure that all certification and academic degree requirements have been successfully met.

It is the student's responsibility to insure that all required coursework is successfully completed for general education, the liberal arts and sciences major, and the state approved major or minor which leads to certification. Students must additionally assume responsibility for submitting all materials to appropriate offices by the established deadlines. Students having questions regarding their certification and/or academic requirements should consult with their adviser, the appropriate department chairperson, or the graduate program coordinator for additional information.

Admission to and Retention in Professional Education Programs - Undergraduate and Post Baccalaureate Programs

All undergraduate and post baccalaureate students preparing for a career in education which requires certification must formally apply, satisfy all selection criteria, and be recommended for admission into Professional Education Programs in the School of Education and Allied Studies. Students may not enroll in education courses beyond the introductory level until they have met all admissions criteria and are officially admitted to the program.

Criteria for Admission

The following criteria have been established as minimum requirements for admission to and retention in a provisional Teacher Certification Program:

1. Cumulative GPA of 2.5 (through all previous undergraduate course work).
2. Proof of proficiency in written English (minimum grade of "C" in EN 101 and 102 or equivalent). For post baccalaureate students, English proficiency is assumed by the awarding of the baccalaureate degree.
3. Complete a minimum of 40 contact hours (20 hours for secondary education) working with children or youth in schools or other agencies as part of an introduction to education course (HS 220, MS 200, EE 220, EE 230, SE 202 or PE 205).
4. Verification of completion of health records (Immunization Record) with the Office of Health Services.

5. Undergraduate students only: two faculty recommendations of at least "recommend" or "highly recommend" on forms provided with the application packet. Graduate and Post Baccalaureate students must provide recommendations to the Graduate School as part of the admissions process.
6. Interview if applicable (check with individual professional education departments).
7. Complete an application for Admission to a Professional Education Program. Applications can be obtained through the introductory courses or in the School of Education and Allied Studies office. The application includes biographical data, information on employment and volunteer experiences, and verification of completion of criteria 1-5 above. The application will assist in determining competency in written expression of the English language and should reflect the applicant's commitment to a career in education. Therefore, students should pay particular attention to correct spelling and the proper use of grammar when completing this application.
8. Beginning September 1, 1999, students must also submit proof of having obtained a passing score (determined by the Massachusetts Department of Education) on the Communication and Literacy portion of the "Teacher Test" (National Evaluation Systems) required for Massachusetts teacher certification under the Education Reform Act of 1993.

Admission Deadlines

Students must apply and be admitted to a professional education program before they may enroll in upper level (beyond the introductory level) professional education courses. Students are responsible for maintaining communication with their academic advisers and for preparing and submitting the completed application packets. Applications are accepted at any time. To ensure adequate time for processing, however, application should be made several weeks in advance of the anticipated date of registration for professional education courses.

All students enrolling in upper level courses in the School of Education and Allied Studies must have been officially accepted into professional education.

Admission Process

The following is the established process for admission to a provisional certification program in the School of Education and Allied Studies:

School of Education & Allied Studies

1. The student receives the application packet from the instructor of the introduction to education course (HS 220, MS 200, EE 230, SE 202 and PE 205).
2. The student completes the application as directed in the packet and returns it to the Office of Professional Education by the required deadline.
3. Students will be notified via mail of the status of their application.

Retention and Exit Requirements

Students must remain in full compliance with all regulations, requirements, policies, and procedures of the School of Education and Allied Studies, the college, and the State Department of Education.

Admission/Retention Appeal Process

A student who wishes to request reconsideration of a professional education program admission/retention decision may submit a written letter of appeal to the Dean of the School of Education and Allied Studies.

Application for Practicum - Undergraduate and Post Baccalaureate Programs*Admissions Criteria*

The following criteria must be met for admission to the practicum:

1. The applicant must be a matriculated student at the college and must have been formally admitted into a Professional Education Program.
2. The applicant must have maintained a minimum Bridgewater State College GPA of 2.5.
3. The student must have proof of having had a tuberculin test which must be valid throughout the field experience.

Application Process

The following process is established for completing the undergraduate application for the practicum:

1. The student obtains the application from the Field Experience Office.
2. The student completes the application form in consultation with his or her departmental adviser. The

adviser recommends the applicant for the practicum if the criteria are met.

3. The department chairperson/graduate coordinator reviews and makes a recommendation regarding the applicant's request for the practicum.
4. The application packet is submitted to the Field Experience Office by the appropriate deadline.
5. Some school systems may require applicants seeking a student teaching placement to request a CORI (criminal offender record inquiry).

Admission Deadline

1. The deadline for submitting the completed application packet to the Field Experience Office is **February 1** to student teach the following fall and **September 30** to student teach the following spring.

All practica are completed within the college's service area at centers and sites established by the School of Education and Allied Studies. Students are supervised by appropriately qualified faculty. In that the practica experiences are intense and rigorous, it is recommended that students not enroll in other courses during the semester that they student teach.

Written complaints filed by schools or agencies relative to a student teacher will be reviewed by a committee from the School of Education and Allied Studies. In instances where the student teacher has not met the procedures, policies, standards and/or expectations of the college as set forth in this catalog, the Practicum Handbook and/or other college documents, the student may be removed from the assignment and the program.

Admission to, Retention in and Exit from Professional Education Programs - MAT, M.Ed., CAGS

All graduate students seeking certification must formally apply, satisfy all selection criteria, and be recommended for admission into Professional Education programs in the School of Education and Allied Studies. This includes students enrolled in clinical Master of Arts in Teaching (M.A.T.) and clinical Master of Education (M.Ed.) programs, which are designed for persons who have provisional certification with advanced standing and are seeking standard certification in an appropriate field.

The following requirements and criteria for admission to and retention in certification and degree programs in the

Bridgewater State College

School of Education and Allied Studies have been established:

1. All students must obtain and file an application to Professional Education for provisional and/or standard certification programs.
2. Students must remain in good standing with the Graduate School.

Application for Clinical Experience

Procedure for registering a clinical experience for standard certification

Students will be informed of the application procedures for the required clinical experience for their standard certification during the course ED 534.

Substitutions/Waivers for Certification

Undergraduate and graduate students with prior courses and/or experiences which are equivalent to or exceed those required in a particular state approved program (Certification Competencies I-VII) may request a waiver by way of their academic adviser through their department. Students should contact their adviser for a copy of this institutional process. Grades of D and F cannot be used.

Professional Education Review Process

A student who experiences a problem pertaining to program waiver, certification or other matters may request consideration under the School of Education and Allied Studies' established review process.

The first step is for the student to submit a written appeal to his or her adviser. If the situation cannot be resolved at this level, the student and/or adviser will then proceed to the department chairperson or graduate coordinator. Should the student's situation not be resolved, then the student may petition the dean of the School of Education and Allied Studies for review. The dean, at his or her discretion, may convene a review board to hear the appeal.

Application for Massachusetts Educational Certification - Provisional with Advanced Standing & Standard Certification:

Students may formally apply for the appropriate educational certification during their last semester of program/degree course work at Bridgewater State College. Undergraduate

and post baccalaureate teacher preparation students will receive provisional certification with advanced standing applications and instructions during the certification/career planning and placement meeting held during their practicum/internship semester. It is the student's responsibility to obtain certification applications and file completed applications with the certification office by the established deadlines. Certification applications should not be confused with practicum/internship applications and documentation.

All other provisional with advanced standing or standard certification applicants may obtain a certification application and instructions from the Office of Certification in the Burnell School during their last semester of course work. Students are responsible for obtaining the necessary paperwork and submitting completed applications according to the instructions provided and by the deadlines established.

Certification Examination

The Massachusetts Board of Education, at its November 18, 1996 meeting, announced that as of January 1, 1998 all candidates for educational certification shall be required to pass two certification examinations which will assess literacy, writing and subject matter knowledge. This means that students **who are not certified by December 31, 1997** will be required to take and pass these examinations in order to be eligible for certification in Massachusetts. The examinations are given four times per year. A passing score on the literacy and communication skills test is anticipated to be required as an entry criteria for professional preparation in September 1999. A passing score on the subject matter test is required for certification. The tests are administered four times each year, (January, April, July, and November).

School of Education and Allied Studies Programs and Course Offerings

Clinical Master's Program

The Clinical Master of Arts in Teaching and Master of Education degree programs are designed for persons who have provisional with advanced standing certification and are seeking standard certification in an approved area. Specific requirements for the degree are provided in the appropriate departmental sections of the catalog.

Certificate of Advanced Graduate Study (CAGS) in Education

The School of Education and Allied Studies offers a program leading to a Certificate of Advanced Graduate Study (CAGS) in Education with concentrations in Educational Leadership and Reading. For details, students should consult the Educational Leadership and Reading program sections of this catalog.

Bridgewater State College/University of Massachusetts-Lowell Collaborative CAGS/Ed.D. Program

There is now a transfer agreement between Bridgewater State College, which offers the Certificate of Advanced Graduate Study (CAGS), and the University of Massachusetts-Lowell, which offers the Doctor of Education (Ed.D.) degree.

In accordance with this agreement, students who satisfactorily complete the CAGS program at Bridgewater State College, and who apply and are admitted to the Ed.D. program at the University of Massachusetts-Lowell, will be eligible to transfer up to 24 credits from the CAGS program into the doctoral program. Specific provisions of the transfer credits will be subject to regulations described in the *Graduate School Catalog* of the University of Massachusetts-Lowell. Graduates of the CAGS program at Bridgewater will be entitled to the same considerations as graduates of the CAGS program at Lowell. Applicants to the doctoral program must submit a completed application for review by the College of Education's Admissions and Standards Committee at the University of Massachusetts-Lowell.

For additional information about this program, contact: Dr. Joanne Newcombe, Graduate Program Coordinator, Educational Leadership Program, Hart Hall, Bridgewater State College, Bridgewater, MA 02325.

Bridgewater State College

Course Offerings*

ED 530 Research Methods (3 crs.)

This course is designed to serve as a foundation for conducting and evaluating research in education and related disciplines. It will stress the development of skills required for the critical evaluation of current research studies. Library resources useful in selecting and delimiting problems, appraisal of related literature and documentation, organization and format of a research study will be included. The course will culminate in a comprehensive evaluation of a current research study or a research proposal.

ED 531 The Curriculum Experience (3 crs.)

This course addresses the principles of curriculum design, development, and evaluation for Pre-K-12 classrooms. Working individually or as a member of a team, students will develop and modify a curriculum which is reflective of student-centered learning. As a final experience, the students will present and defend a curriculum consistent with their certification areas and the available state, national, and international curriculum frameworks.

ED 532 Critical Issues: Educators and Society (3 crs.)

This course addresses the critical social, economic, political and multicultural issues challenging educators and society. This study of the critical issues of educators and society intends to clearly demonstrate the vital relationship between educational theory and practice when applied to the core related areas of curriculum, human development, and research.

ED 533 Effective Practice in Human Development and Learning (3 crs.)

This course will assist students to develop, organize and construct an understanding of the theoretical and research basis of educational practice. It will explore the development of the individual and learning, including cognitive, affective, intellectual, social and motoric attributes. Contemporary research in effective practice will be emphasized.

ED 534 Clinical Experience (6 crs.)

A semester long experience (400 hours) in a school focused on improving teaching in order to meet the regulations for a standard certificate.

ED 537 Applied Research Project (2 cr.)

Students develop an applied research project which integrates theory and practice utilizing educational research format and disciplinary knowledge.

____ 537 Applied Research Project (1 cr.)

(Course is offered within the department of the discipline area.) Students complete and present their applied research projects to a public audience. (*Prerequisite: Completion of ED 537.*)

* See page 73 for general information regarding course offerings.

Department of Elementary & Early Childhood Education

Faculty

- Chairperson:** Associate Professor John Marvelle
- Professors:** Steven Greenberg, Margery Kranyik, Wayne Phillips
- Associate Professors:** Barbara Bautz, Judith Deckers, Ruth Farrar, Maureen Moir, Gerald Thornell
- Assistant Professors:** John Jones, Gregory Nelson, Farideh Oboodiat, Mary Shorey, Nancy Witherell, C. Thomas Wolpert



Undergraduate Programs

Bachelor of Science in Education

Elementary Education (1-6)

Students who wish to be elementary teachers are required to select a major in elementary education as well as a major in the liberal arts or sciences. A major in liberal arts or sciences is a requirement of the Commonwealth of Massachusetts.

Students must apply for admission and be accepted into Professional Education after completion of EE 220 Principles of Teaching and before the professional semester. EE 220 is the only education course in which students can enroll prior to official acceptance into a Professional Education Program.

Before entering professional courses in art, reading, language arts, mathematics, science and social studies, and educational evaluation, a student must have a cumulative average of 2.5, one of the requirements for acceptance into professional education.

All matriculated undergraduate Elementary Education degree seeking students must take the Professional Semester as a block of courses and must register with the department. Part-time students should contact the department concerning special scheduling arrangements.

All undergraduate students seeking professional certification must consult the section of this catalog entitled *School of Education and Allied Studies* for information pertaining to the *State Regulations for the Certification of Educational Personnel* and important institutional deadlines.

Students must complete 80 hours of prepractica experience. A forty hour experience is attached to the course EE 220. An additional 40 hours is attached to the professional courses: reading, language arts, mathematics, and science and social studies. Undergraduates who are not taking these courses together in a professional block must meet with their professor to plan appropriate prepractica experiences.

After completing all education methods courses, students must complete a full-time, semester long student teaching experience in a local school under the joint supervision of a college supervisor and a cooperating practitioner.

Students successfully completing the program are eligible to apply for provisional Massachusetts certification in Elementary Education (1-6) with advanced standing.

This program has been approved by the Massachusetts Department of Education and includes certification reciprocity with signatory states under the Interstate Certification Compact.

School of Education & Allied Studies

The following courses are required to complete the Elementary Education major:

- *EE 220 Principles of Teaching
- EE 300 Elementary Art Methods (.5 crs.)
- EE 310 Teaching Science and Social Studies in the Elementary School
- EE 330 Teaching Reading in the Elementary School
- EE 340 Teaching Language Arts in the Elementary School
- EE 350 Teaching Mathematics in the Elementary School
- EE 360 Educational Evaluation
- EE 492 Supervised Teaching in Public Schools – Elementary

**To be completed prior to admission to Professional Education and enrollment in upper division education courses.*

Early Childhood Education (Pre-K-3)

Students who wish to be early childhood teachers are required to select a major in Early Childhood Education as well as a major in the liberal arts or sciences. A major in liberal arts or sciences is a requirement of the Commonwealth of Massachusetts.

The Department of Elementary and Early Childhood Education offers a major in Early Childhood Education which enables the student to prepare for career opportunities with young children from infancy through age eight. Students are provided with professional preparation in understanding stages of child growth and development, curriculum planning, teaching procedures and program evaluation.

Students must apply for admission and be accepted into Professional Education after completion of EE 230 and before the professional semester. EE 230 is the only education course in which students can enroll prior to official acceptance into a Professional Education Program.

Before entering professional courses in art, reading, language arts, mathematics, planning and programming, and science and social studies, a student must have a cumulative average of 2.5, one of the requirements for acceptance into Professional Education.

All matriculated undergraduate Early Childhood Education degree seeking students must take the Professional Semester as a block of courses and must register with the department. Part-time students should contact the department concerning special scheduling arrangements.

All undergraduate students seeking professional certification must consult the section of this catalog entitled *School of Education and Allied Studies* for information pertaining to the *State Regulations for the Certification of Educational Personnel* and important institutional deadlines.

Students must complete 80 hours of prepractica experience. A 40 hour experience is attached to the course EE 230, 15 hours at a preschool level and 25 hours at the kindergarten or primary level. An additional 40 hours is attached to the professional courses: reading, language arts, mathematics, and science and social studies. Undergraduates who are not taking these courses together in a professional block must meet with their professor to plan appropriate prepractica experiences.

After completing all education methods courses, students must complete a full-time, semester long student teaching experience in a local school under the joint supervision of a college supervisor and a cooperating practitioner.

Students successfully completing the program will be eligible to meet Commonwealth of Massachusetts teacher certification requirements for provisional Teacher of Early Childhood Education (Pre-K-3) with advanced standing.

The following courses are required to complete the Early Childhood Education major:

- *EE 230 The Basics of Early Childhood Education
- EE 300 Elementary Art Methods (.5 crs.)
- EE 311 Science and Social Studies Inquiry for the Young Child
- EE 332 Reading Development for the Young Child
- EE 342 Language Arts for the Young Child
- EE 352 Developmental Mathematics for the Young Child
- EE 361 Planning and Programming for the Young Child
- EE 496 Supervised Teaching in Public Schools- Early Childhood
- EE 497 Supervised Teaching in the Preschool

**To be completed prior to admission to Professional Education and enrollment in upper division education courses.*

*Elementary & Early Childhood Education***Graduate Programs****Early Childhood Education (Pre-K-3)***Coordinator: John Marvelle***Elementary Education (1-6)***Coordinator: Maureen Moir***Reading***Coordinator: Ruth Farrar*

The Department of Elementary and Early Childhood Education offers several programs designed to meet the needs of graduate students: post baccalaureate programs that allow students to apply for provisional certification with advanced standing in Elementary Education (1-6) or Early Childhood Education (Pre-K-3); a clinical master's program that leads to the degree of Master of Education in Elementary Education or Early Childhood Education, and provides eligibility for standard certification. The department also offers a Master of Education degree in Elementary Education, Early Childhood Education and Reading for those students who have standard certification. In addition, a CAGS in Education concentration in Reading is available.

Post Baccalaureate Program: Provisional Certification With Advanced Standing - Elementary Education (1-6)

This program is designed for persons who have a bachelor's degree and seek provisional certification with advanced standing in elementary education (1-6). A liberal arts or science undergraduate major or its equivalent is required. A minimum 2.5 undergraduate GPA is required for admission to the program. This program has been approved by the Massachusetts Department of Education and includes certification reciprocity with signatory states under the Interstate Certification Compact.

Students should consult the *Graduate School* section of the catalog for information regarding graduate program application procedures and admission standards.

Students seeking provisional certification with advanced standing should consult the section of this catalog entitled *School of Education and Allied Studies* for information pertaining to professional certification, admission and retention in Professional Education, as well as important institutional deadlines.

Students must complete 80 hours of prepractica experience. A forty hour experience is attached to the course EE 220. An

additional 40 hours is attached to the professional courses: reading, language arts, mathematics, and science and social studies. All accepted students must enroll under the direction of their adviser in GP 501 Graduate Program Planning, which is described under "Graduate Advisers and Program Planning" in the *Graduate School* section of this catalog.

Students must complete the following courses:

GP 501 Graduate Program Planning (1 cr.)

*EE 220 Principles of Teaching

EE 300 Elementary Art Methods (.5 crs)

EE 310 Teaching Science and Social Studies in the Elementary School

EE 330 Teaching Reading in the Elementary School

EE 340 Teaching Language Arts in the Elementary School

EE 350 Teaching Mathematics in the Elementary School

EE 360 Educational Evaluation

EE 492 Supervised Teaching in Public Schools – Elementary

**To be completed prior to admission to Professional Education and enrollment in upper division education courses.*

Students successfully completing the program are eligible to apply for provisional Massachusetts certification in Elementary Education (1-6) with advanced standing.

Master of Education**Clinical Master's Program****Elementary Education Teacher (1-6)**

This master's degree program is designed for persons who have provisional certification with advanced standing in Elementary Education, and are seeking standard certification as an elementary teacher (1-6). This program has been approved by the Massachusetts Department of Education and includes certification reciprocity with signatory states under the Interstate Certification Compact.

Students should consult the *Graduate School* section of the catalog for information regarding graduate program application procedures and admission standards.

Students seeking standard certification should consult the section of this catalog entitled *School of Education and Allied Studies* for information pertaining to professional certification, admission to and retention in Professional Education, as well as important institutional deadlines.

All accepted students must enroll under the direction of their adviser in GP 501 Graduate Program Planning, which

School of Education & Allied Studies

is described under "Graduate Advisers and Program Planning" in the *Graduate School* section of this catalog. As part of their program students must satisfactorily complete the following courses:

- GP 501 Graduate Program Planning (1 cr.)
- ED 530 Research Methods
- ED 531 The Curriculum Experience
- ED 532 Critical Issues: Educators and Society
- ED 533 Effective Practices in Human Development and Learning
- ED 534 Clinical Experience (6 crs.)
- ED 537 Applied Research Project (2 crs.)

(Course descriptions for ED 530-537 are provided in the *School of Education and Allied Studies* section of this catalog.)

The following five courses and the Applied Research Project are required to assist students in meeting Standard I Pedagogical Content Knowledge of the Massachusetts Regulations for Standard Certification of Elementary Teachers:

- EE 537 Applied Research Project (1 cr.)
- EE 552 Advanced Methods for Teaching Science and Social Studies: Theory into Practice
- EE 566 Technological Applications for Education
- EE 567 Contemporary Teaching Techniques for Mathematics
- RD 550 Improving Literacy Instruction
- HE 535 Comprehensive Elementary School Health Program (1.5 crs.)
- SE 535 Exceptional Learner in the Classroom (1.5 crs.)

Each student will be required to pass a comprehensive examination prior to being eligible for the awarding of the Master of Education in Elementary Education degree.

Students who have successfully completed the above curriculum are eligible for standard certification.

Specific course requirements may be waived by the Department of Elementary and Early Childhood Education and the School of Education and Allied Studies if the students' documented request is approved under state endorsed procedures.

Master of Education in Elementary Education - Program for Personnel Holding Standard Certificates

The program is designed for certified teachers (standard level) of grades one through six.

Students should consult the *Graduate School* section of the catalog for information regarding graduate program application procedures and admission standards.

All accepted students must enroll under the direction of their adviser in GP 501 Graduate Program Planning, which is described under "Graduate Advisers and Program Planning" in the *Graduate School* section of this catalog. As part of their program, students must satisfactorily complete the following courses:

- GP 501 Graduate Program Planning (1 cr.)
- ED 530 Research Methods
- ED 531 The Curriculum Experience
- ED 532 Critical Issues - Educators and Society
- ED 533 Effective Practices in Human Development and Learning
- EE 554 Graduate Seminar in Elementary Education

(Course descriptions for ED 530-533 are provided in the *School of Education and Allied Studies* section of this catalog.)

In addition, students must complete courses approved by the department which meet the academic and professional objectives of the student - 15 or more graduate credits. EE 554 Graduate Seminar in Elementary Education is the last course taken prior to a comprehensive examination.

Each student will be required to pass a comprehensive examination prior to being eligible for the awarding of the Master of Education in Elementary Education degree.

Post Baccalaureate Program: Provisional Certification With Advanced Standing - Early Childhood Teacher (Pre-K-3)

This program is designed for persons who have a bachelor's degree and seek provisional certification with advanced standing in early childhood education (Pre-K-3). A liberal arts or science undergraduate major or its equivalent is required. A minimum 2.5 undergraduate GPA is required for admission to the program. This program has been approved by the Massachusetts Department of Education and includes certification reciprocity with signatory states under the Interstate Certification Compact.

Elementary & Early Childhood Education

Students should consult the *Graduate School* section of this catalog for information regarding graduate program application procedures and admission standards.

Students seeking provisional certification with advanced standing should consult the section of this catalog entitled *School of Education and Allied Studies* for information pertaining to professional certification, admission to and retention in Professional Education, as well as important institutional deadlines.

Students must complete 80 hours of prepractica experience. A 40 hour experience is attached to the course EE 230. An additional 40 hours is attached to the professional courses: reading, language arts, mathematics, and science and social studies. All accepted students must enroll under the direction of their adviser in GP 501 Graduate Program planning, which is described under "Graduate Advisers and Program Planning" in the *Graduate School* section of this catalog.

Students must complete the following courses:

- GP 501 Graduate Program Planning (1 cr.)
- *EE 230 The Basics of Early Childhood Education
- EE 300 Elementary Art Methods (.5 crs.)
- EE 311 Science and Social Studies Inquiry for the Young Child
- EE 332 Reading Development for the Young Child
- EE 342 Language Arts for the Young Child
- EE 352 Developmental Mathematics for the Young Child
- EE 361 Planning and Programming for the Young Child
- EE 496 Supervised Teaching in the Public School-
Early Childhood (6 crs.)
- EE 497 Supervised Teaching in the Preschool (6 crs.)

**To be completed prior to admission to Professional Education and enrollment in upper division education courses.*

Students successfully completing the program are eligible to apply for provisional Massachusetts certification in Early Childhood Education (Pre-K-3) with advanced standing.

Master of Education**Clinical Master's Program****Early Childhood Teacher (Pre-K-3)**

This master's degree program is designed for persons who have provisional certification with advanced standing as an Early Childhood (Pre-K-3) teacher. This program has been approved by the Massachusetts Department of Education and includes certification reciprocity with signatory states under the Interstate Certification Compact.

Students should consult the *Graduate School* section of this catalog for information regarding graduate program application procedures and admission standards.

Students seeking standard certification should consult the section of this catalog entitled *School of Education and Allied Studies* for information pertaining to professional certification, admission to and retention in Professional Education, as well as important institutional deadlines.

All accepted students must enroll under the direction of their adviser in GP 501 Graduate Program Planning, which is described under "Graduate Advisers and Program Planning" in the *Graduate School* section of this catalog. As part of their program, students must satisfactorily complete the following courses:

- GP 501 Graduate Program Planning (1 cr.)
- ED 530 Research Methods
- ED 531 The Curriculum Experience
- ED 532 Critical Issues: Educators and Society
- ED 533 Effective Practices in Human Development and Learning
- ED 534 Clinical Experience (6 crs.)
- ED 537 Applied Research Project (2 crs.)

(Course descriptions for ED 530-537 are provided in the *School of Education and Allied Studies* section of this catalog.)

The following five courses and the Applied Research Project are required to assist students in meeting Standard I Pedagogical Content Knowledge of the Massachusetts Regulations for Standard Certification of Early Childhood Teachers:

- EE 537 Applied Research Project (1 cr.)
- EE 552 Advanced Methods for Teaching Science and Social Studies: Theory into Practice
- EE 566 Technological Applications for Education
- EE 567 Contemporary Teaching Techniques for Mathematics
- RD 550 Improving Literacy Instruction

School of Education & Allied Studies

HE 535 Comprehensive Elementary School Health Program (1.5 crs.)

SE 535 Exceptional Learner in the Classroom (1.5 crs.)

Each student will be required to pass a comprehensive examination prior to being eligible for the awarding of the Master of Education in Early Childhood Education degree.

Students who have successfully completed the above curriculum are eligible for standard certification.

Specific course requirements may be waived by the Elementary and Early Childhood Education Department and the School of Education and Allied Studies if the student's documented request is approved under state endorsed procedures.

Master of Education in Early Childhood Education - Program for Certified Personnel Holding Standard Certificates

This program is designed for certified teachers (standard level) of grades preschool to grade three.

Students should consult the *Graduate School* section of this catalog for information regarding graduate program application procedures and admission standards.

All accepted students must enroll under the direction of their adviser in GP 501 Graduate Program Planning, which is described under "Graduate Advisers and Program Planning" in the *Graduate School* section of this catalog. As part of their program, students must satisfactorily complete the following courses:

- GP 501 Graduate Program Planning (1 cr.)
- ED 530 Research Methods
- ED 531 The Curriculum Experience
- ED 532 Critical Issues: Educators and Society
- ED 533 Effective Practices in Human Development and Learning
- EE 575 Graduate Seminar in Early Childhood Education

(Course descriptions for ED 530-533 are provided in the *School of Education and Allied Studies* section of this catalog.)

In addition, students must complete courses approved by the department which meet the academic and professional objectives of the student - 15 or more graduate credits.

EE 575 Graduate Seminar in Early Childhood Education is the last course taken prior to a comprehensive examination.

Each student will be required to pass a comprehensive examination prior to being eligible for the awarding of the Master of Education in Early Childhood Education degree.

Master of Education in Reading

Coordinator: Ruth Farrar

This program is designed to prepare experienced teachers for positions as consulting teachers of reading (all levels) and has been approved by the Massachusetts Department of Education. This includes certification reciprocity with signatory states under the Interstate Certification Compact. At this time Bridgewater State College requires one year of employment as a classroom teacher, or comparable experience as approved by the Reading Advisory Council. A minimum of thirty-six approved degree credits is required in this degree program. Graduate students accepted into the program must enroll under the direction of their adviser in GP 501 Graduate Program Planning which is described under "Graduate Advisers and Program Planning" in the *Graduate School* section of this catalog. As part of their program, students must satisfactorily complete the following curriculum:

- RD 550 Improving Literacy Instruction (3 crs.)
- RD 551 Case Studies in Literacy Acquisition and Development (3 crs.)
- RD 552 Literacy Assessment Principles and Techniques (3 crs.)
- RD 553 Issues in Literacy Education (3 crs.)
- RD 555 Supervision and Administration of Literacy Programs (3 crs.)
- RD 556 Literacy Curriculum Development and Implementation (3 crs.)
- ED 530 Research Methods (3 crs.)
- ED 532 Critical Issues-Educators and Society (3 crs.)
- ED 533 Effective Practice in Human Development and Learning (3 crs.)
- RD 558 Clinical Experience for a Consulting Teacher of Reading I (3 crs.)
- RD 559 Clinical Experience for a Consulting Teacher of Reading II (3 crs.)
- RD 560 Research Seminar I (1 cr.)
- RD 561 Research Seminar II (2 crs.)

Students who have successfully completed these courses are eligible for standard certification as a Teacher of Reading (all levels).

Program Electives

Courses in reading and/or related fields, approved by the adviser, which meet the academic and professional objec-

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tives of the student, may be elected by students who are not seeking certification.

Practica in Reading

Students in this graduate program seeking certification as consulting teachers of reading must fulfill the requirements for clinical and supervisory components of the practica. The program has several options which have been developed to meet the requirements of state certification while providing for the different professional circumstances of the student. These options should be discussed with the program coordinator.

Students not seeking certification may substitute appropriate electives for these practica.

Each student will be required to pass a comprehensive examination prior to being eligible for the Master of Education in Reading degree.

Certificate of Advanced Graduate Study - Concentration in Reading

The CAGS in Education with a concentration in Reading prepares students for their role as educational leaders in the area of reading, language, and literacy.

Program Requirements

- A. CAGS in Education Requirements (7 crs.)
 1. GP 501 Graduate Program Planning (1 crs.)
 2. RD 670 CAGS Seminar (3 crs.)
 3. RD 681 CAGS Extern Program (3 crs.)
 4. IT 552 Multimedia for Educators
With the adviser's consent, another 500 or 600 level course in Instructional Technology may be substituted for IT 552. (Suggested alternatives: IT 514 *Telecommunications on the Internet*; IT 551 *Homepages for Educators*)
 5. Comprehensive Examination
- B. Reading Concentration Requirements (18 crs.)
 1. RD 650 Research in Literacy Curriculum and Instruction (3 crs.)
 2. RD 651 Socio-psycholinguistics and Critical Literacy
 3. RD 652 Cultural Foundations of Literacy (3 crs.)
 4. RD 653 Clinical Diagnosis and Instruction (3 crs.)
 5. RD 654 Principles and Programs in Professional Development (3 crs.)
 6. RD 655 Case Studies in Literacy Education (3 crs.)

- C. Reading Concentration Electives (6 crs.)
(Other appropriate electives may be approved by the adviser.)
 1. RD 503 Directed Study (3 crs.)
 2. RD 558 Clinical Experience for the Consulting Teacher of Reading (2 crs.)
 3. RD 559 Clinical Experience for the Consulting Teacher of Reading (3 crs.)
 4. ML 558 Advanced Studies in Literature for Children, Young People (3 crs.)
 5. SA 577 Systems Planning for Educational Leadership (3 crs.)

School of Education & Allied Studies

Course Offerings*

EE 200 Introduction to Computers for the Elementary School Classroom (3 crs.)

Designed as a computer literacy course for K-6 pre-service teachers, in-service teachers, and supervisory personnel. The course covers the history, capabilities, role, and literacy in computer education. Early childhood and elementary school applications are to be explored in a computer laboratory setting. No prior knowledge or experience with computers is assumed. *Formerly EE 468. Either semester*

EE 220 Principles of Teaching (3 crs.)

Taken by elementary students as their first course in professional education, the course will provide for observation of elementary age children in a classroom setting, opportunity for working with such children and confirmation of the choice of teaching as a career. The principles of effective teaching and classroom management will be analyzed and the use of media in developing lesson plans taught.

EE 230 The Basics of Early Childhood Education (3 crs.)

Survey of Early Childhood Education in relation to historical perspectives, philosophical foundations and sociological factors. Students will become aware of day care services, Montessori, nursery school, kindergarten and primary grades. Students will develop materials for classroom use and complete a 40-hour prepracticum in a classroom.

EE 300 Elementary Art Methods (.5 cr.)

An introduction to methods and materials in art for the elementary teacher. Art projects typical of those done by children in grades K-6 are produced. Classroom management, bulletin board design, and lesson introduction techniques are explored. *Either semester*

EE 310 Teaching Science and Social Studies in the Elementary School (3 crs.)

This course will examine the development of current curriculum that will influence the teaching of science and social studies in the 1990's. Emphasis will be placed on the methodologies of these disciplines with a strong focus on cooperative learning, assessment and hands-on science.

EE 311 Science and Social Studies Inquiry for the Young Child (3 crs.)

The major concepts and process skills in science and social studies will be experienced. The emphasis will be on the learning environment. Students will learn how to help children move from specific information toward general statements, concepts and generalizations in an inductive process using convergent and divergent thinking. *Formerly EE 462.*

EE 313 Teaching Music in Pre-K and Elementary School (3 crs.)

Students will learn methods and pedagogical systems in order to successfully teach music in the elementary classroom. Includes singing, use of instruments, listening, reading music, and rhythmic activity. *(Prerequisites: MU 172, MU 270, and consent of the department)*

EE 330 Teaching Reading in the Elementary School (3 crs.)

A consideration of the teaching/learning processes involved in the

acquisition of literacy: modeling teacher-child interactions, and independent exploration. Careful monitoring of pupil progress and appropriate interventions are emphasized.

EE 331 Developmental Reading in the Secondary School (3 crs.)

The techniques used to develop reading skills in the secondary school, evaluation of the modern reading materials available, a study of techniques used to analyze students' reading needs and a survey of administration of reading programs in the secondary school with implications for teachers as well as administrators. *Offered evenings and summers only.*

EE 332 Reading Development for the Young Child (3 crs.)

Early Childhood majors learn how to create the conditions that facilitate the acquisition of literacy. The roles of print processing strategies, guided reading experiences and voluntary, independent reading are explored along with the relationship between reading and writing. Prepracticum experiences include reading aloud, shared book experiences, and teaching guided reading lessons. *Formerly EE 372.*

EE 333 Strategies of Teaching Reading in the Middle School (3 crs.)

The course is designed to teach the instructional models in reading necessary to aid the middle school child in the acquisition of vocabulary and skill competence. Processes for the guiding of the transfer of these skills to silent and oral reading will be taught. *Either semester*

EE 340 Teaching Language Arts in the Elementary School (3 crs.)

Strategies in the elementary school to enhance the communication skills of reading, writing, listening and speaking through pupil involvement in purposeful communication will be stressed. Special emphasis will be given to the teaching of writing and to the development of thinking skills through questioning. *Either semester*

EE 341 Strategies of Teaching Language Arts in the Middle School (3 crs.)

Strategies to enhance the communication skills of reading, writing, listening, speaking, through pupil involvement in purposeful communication will be stressed. Special emphasis will be given to the teaching of writing and to the development of thinking skills through questioning. *Either semester*

EE 342 Language Arts for the Young Child (3 crs.)

Through the use of an integrated approach of content, the student will develop strategies for the teaching of language arts which build on the relation of thought and word and the changes in that process that develop competencies in listening, speaking, writing and reading as a union of word and thought. *Formerly EE 474.*

EE 350 Teaching Mathematics in the Elementary School (3 crs.)

Examining the purpose and content of the contemporary elementary school mathematics curriculum, this course emphasizes how children learn mathematics, a wide variety of teaching procedures and instructional materials, evaluation techniques for use in the classroom, and pedagogical methodology for individualization. Designed also to create awareness of affective experiences in the teaching/learning process of elementary school mathematics. *Either semester*

* See page 73 for general information regarding course offerings.

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EE 351 Improving Mathematical Instruction in the Elementary School (3 crs.)

Appraisal of current mathematics programs, evaluation of individual pupils within a class, consideration of current instructional procedures and materials designed to provide for individual differences. (*Prerequisite: EE 350*) Offered evenings and summers only.

EE 352 Developmental Mathematics for the Young Child (3 crs.)

Through the use of an integrated approach of content, the student will develop strategies in math that are concept oriented in which the primary emphasis is on thinking, reasoning and understanding with an emphasis on developing in young children the ability to investigate how and why things happen in math. In a prepracticum experience the student will teach a series of lessons in math at the primary level.

EE 353 Strategies of Teaching Mathematics in the Middle School (3 crs.)

Designed to present the participant with a view of the current middle school mathematics curriculum, this course will emphasize how students learn mathematics, appropriate pedagogical and methodological techniques, evaluation procedures for use in the classroom and techniques for individualization to allow for meaningful learning of mathematical skills and concepts. Emphasis is also placed upon participant awareness of affective, as well as cognitive experiences in the middle school mathematics process. Offered evenings and summers only.

EE 360 Educational Evaluation (3 crs.)

Students will learn the purpose of evaluation, and become familiar with some of the current trends in assessment today. The elements of broad-based assessment will be taught. Elementary statistics will be introduced. Commonly used standardized tests, their characteristics and interpretation will be studied. Formerly EE 312

EE 361 Planning and Programming for the Young Child (3 crs.)

The student will become proficient in planning a developmentally appropriate program for children from infancy through age 6, incorporating classroom management, effective parent-community relationships, evaluation and multicultural education. Observation and participation component included.

EE 362 Methods and Materials in Elementary Art (3 crs.)

The objective of art education, role of the classroom teacher, developmental stages in the creative growth of children; materials, processes, tools and teaching procedures which will foster this growth at the various grade levels; correlation of art with other subject fields and evaluation of student progress. Offered evenings and summers only.

EE 373 Helping Children to Write Creatively (3 crs.)

Conducted in a positive atmosphere of support, encouragement and fun, this practical and intensive course employs a workshop format and is aimed at helping teachers to prepare creatively for a classroom emphasizing writing fluency and skill development. Participants are requested to bring a few favorite selections of children's literature. When offered as a one-week, full-time workshop, participants may have until two weeks after the end of workshop sessions to complete course requirements. (*Prerequisite: A Reading or Language Arts course*) Offered once every three years.

EE 390 Field Based Practicum (6 crs.)

Community public schools serve as laboratories in which students engage in observation and participation in the teaching/learning process. Through active participation with the cooperating teacher the student will demonstrate an ability to sequence meaningful learning activities for individuals, small groups and total class instruction. The student teacher becomes an integral participant in the school community by gradually assuming the obligations of the classroom teacher. Throughout this experience the cooperating teacher and student teacher engage in a continuous evaluative dialogue which is designed to identify areas of strength and weakness so that alternative strategies might be employed to enhance the student's professional growth. (*Prerequisite: PY 100, EE 220, and acceptance and good standing in Teacher Preparation Program*) Offered only by arrangement with department (please consult the department chairperson)

EE 400 Creative Techniques for Teaching (3 crs.)

Storytelling, creative dramatics, role playing, puppets and masks, and other speech arts, and their practical application in teaching various subjects. Either semester

EE 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 and/or level of concentration. Either semester

EE 441 Methods & Materials in Outdoor Education for the Elementary Teacher (3 crs.)

New trends and practices in elementary curriculum and methods in outdoor education will be explored in a natural setting. Analysis of different approaches to curriculum construction, teaching procedures, integration of material to classroom and school setting will be implemented. Offered evenings and summers only.

EE 442 Methods and Materials in Outdoor Education II (3 crs.)

A two-phase program including two in-house weekend workshops. The course will deal with the process of individually researching, designing, and developing outdoor education projects for elementary and high school children. An emphasis will be on ocean studies and wilderness experiences. Offered evenings and summers only.

EE 450 Elementary School Curriculum (3 crs.)

Roles of the administrator, the teacher, the parent and the child in the development of the changing curriculum in the elementary school. Use of action research, in-service training, innovations for curriculum improvement, school organizations, team teaching, the non-graded school, individualized instruction, the reevaluation of objectives and democratic values. Offered evenings and summers only.

EE 452 Methods and Materials in Elementary Education (3 crs.)

Effective ways of vitalizing the teaching/learning process through teacher-pupil planning, participation and evaluation. Emphasis on creative teaching and the individualized approach. Materials and strategies are examined in the light of current issues. Offered evenings and summers only.

*School of Education & Allied Studies***EE 454 Seminar in Elementary Education (3 crs.)**

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 the chairperson. *Offered evenings and summers only.*

EE 455 Drug Education for the Elementary School Teacher (3 crs.)

Prevention of drug abuse is the chief purpose of the course. How to acquaint elementary teachers with the causes and cure of the problem. A review of current methods and materials in drug education will be featured. *Offered evenings and summers only.*

EE 456 Current Issues in Elementary Education (3 crs.)

This course focuses on influential issues in contemporary education. Specific emphasis is placed on the following topics: financial problems; moral and ethical considerations; interplay of educational techniques; the teacher as a person and a professional; the role of the school as a change-agent in society. *(Prerequisite: 9 hours in education)* *Offered evenings and summers only.*

EE 457 Strategies for Managing Classroom Behavior (3 crs.)

This course will assist education students in developing their skills in classroom management. Consideration will be given to successful management models and teaching strategies as they apply to the developmental levels of children. *Offered evenings and summers only.*

EE 460 Methods and Materials in Elementary Science (3 crs.)

Goals of elementary school science instruction and the methods of attaining them through "newer" science programs, problem solving, experimentation, and varied instructional media are examined. *Either semester*

EE 470 Methods and Materials in Elementary Social Studies (3 crs.)

Emphasis is placed on current trends including objectives, curriculum, creative pupil-teacher planning, teaching techniques involving extensive use of instructional media and study tours of New England. *Either semester*

EE 473 Improving Elementary School Social Studies (3-6 crs.)

The intent of this course is to develop with the student a series of strategies, affective as well as cognitive, that combine the best elements of the teaching-learning experience in elementary school social studies. The newest trends and practices in social studies curriculum and methodology are explored in a laboratory context. *Offered evenings and summers only.*

EE 475 Seminar in Early Childhood Education (3 crs.)

Study of problems and issues related to the education of young children. Emphasis will be placed on current research, learning theories, curricular and methodological concerns. Each student will make an extensive study of a significant issue related to Early Childhood Education. *Offered evenings and summers only.*

EE 490 Supervised Teaching in the Elementary Schools—Art (6 or 12 crs.)

Supervised experiences in classroom art activities. Experiences gained

in teaching techniques, materials, individual differences, and classroom management. Supervision by the cooperating teacher and college supervisor. Full time for one quarter. *(Prerequisite: Acceptance and good standing in Teacher Preparation Program)* *Either semester*

EE 491 Internship in Elementary Education (6 crs.)

A minimum of 300 clock hours will be required in a grade 1-6 setting as an elementary teacher. Internship must be less than full time but at least one-fifth time employment as an elementary school teacher. Request for this course must be made to School of Education and Allied Studies office. *(Prerequisite: consent of the department)*

EE 492 Supervised Teaching in Public Schools—Elementary (6 or 12 crs.)

Supervised experiences in classroom activities. Experiences gained in teaching techniques, individual differences and classroom management. Opportunities available in a variety of instructional environments. Supervision by the cooperating teacher and college supervisor. Full time for either one quarter or a full semester. *(Prerequisite: Acceptance and good standing in Teacher Preparation Program)* *Either semester*

EE 493 Internship in Early Childhood Education (6 crs.)

A minimum of 300 clock hours will be required in an Pre-K-3 grade setting as an early childhood teacher. Internship must be less than full time but at least one-fifth time employment as an early childhood teacher. Request for this course must be made to the School of Education and Allied Studies office. *(Prerequisite: consent of the department)*

EE 494 Supervised Teaching in the Elementary School—Music (12 crs.)

Students will participate in teaching music in the elementary classroom with supervision by cooperating teacher and college supervisor. Includes the culmination of courses designed to meet all seven Common Teaching Competencies, and specific practicum in a music teaching situation. *(Prerequisite: acceptance and good standing in Teacher Preparation Program)*

EE 496 Supervised Teaching in Public Schools—Early Childhood (6 or 12 crs.)

An eight or fifteen week field experience at the K-2 level under the guidance of a cooperating teacher and a college supervisor. Opportunities for participation in pupil observation, program planning and utilization of contemporary teaching strategies. *Either semester*

EE 497 Supervised Teaching in the Preschool (6 crs.)

Supervised student teaching experience in a preschool setting with children, infancy through age five. Emphasis on development, implementation and evaluation of innovative preschool programs. The student participates in a total program, five days a week for eight weeks in either a day care center, nursery school or head start program. *Either semester*

EE 498 Internship in Elementary or Early Childhood Education (3-15 crs.)

Off-campus experience in an area related to the major. In-depth exposure to educational programs, centers and institutions. This internship does not lead to teacher certification. *(Prerequisite: consent of the department; formal application required)*

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EE 499 Directed Study in Elementary Education (1-3 crs.)

Open to juniors and seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits. (*Prerequisite: consent of the department; formal application required*) Either semester

Other Approved Courses:

EE 100 Effective Reading

EE 101 Speed Reading

EE 370 Kindergarten Theory and Methods

EE 371 The Preschool

EE 435 Teaching Study Skills and the Uses of Reading

EE 436 Remedial Reading Techniques for Classroom Teachers

EE 502 Research (credit to be arranged)

Original research undertaken by the graduate student in his or her field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

EE 503 Directed Study (credit to be arranged)

Designed for the graduate student who desires to study selected topics in a specific field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

EE 530 Enhancing Language Skills in the Classroom (3 crs.)

The intent of the course will be to: 1.) heighten teacher perception of communication potential in the classroom, 2.) suggest techniques for the use of language skills as the vehicle in all content areas, 3.) assist the teacher in the design of materials to fit special needs of the classroom, 4.) aid the teacher in the classroom implementation of the designed materials.

EE 537 Applied Research Project (1 cr.)

In this course, students complete an applied research project which integrates theory and practice utilizing education research format and disciplinary knowledge.

EE 551 Discovering Science — Current Elementary School Science Programs (3 crs.)

Provides students with opportunities to explore the philosophy, psychology, materials, and methods of implementation of the inductive programs for elementary science and to participate in a curriculum development process. Most resource materials used originate in current elementary science programs—Elementary Science Study, Science—A Process Approach, and the Science Curriculum Improvement Study. (*Prerequisite: EE 460, EE 462 or consent of the instructor*)

EE 552 Advanced Methods for Teaching Science and Social Studies: Theory into Practice (3 crs.)

Based on the work of Project PALMS (Partnership Advancing Learning of Mathematics and Science), this course will focus on improving the way science and social studies are taught and learned in elementary school classrooms. Modules will include: constructivism; strategies for teaching using inquiry-based approaches; developing "hands-on" science and social studies materials; using technology in science and social studies; new, alternative strategies for assessment; understanding and using the new curriculum framework and national standards for both science and social studies education. Teachers will de-

velop advanced teaching strategies that encourage students to develop "process skills" including critical graphing skills and other skills associated with the scientific inquiry. With these skills, elementary school students will be able to achieve the goals of scientific literacy and responsible citizenship.

EE 554 Graduate Seminar in Elementary Education (3 crs.)

An integration of formal study, current research and personal experience. Each student will make an extensive study of a significant problem in elementary teaching. (*Prerequisite: Completion of all required M.Ed. courses*)

EE 556 Curriculum for the Gifted Child in Elementary Schools (3 crs.)

New trends and practices in curriculum development to encourage the full development of the gifted are studied. Local, regional, state and national movements are examined. Students study curriculum problems and build a curriculum.

EE 559 Special Topics in Early Childhood Education (3 crs.)

Special topics of current relevance in early childhood education will be offered from time to time. The topic to be addressed will be announced in pre-registration publications. May be taken more than once with the consent of the adviser. (*Prerequisite: Course prerequisites may be specified depending upon the nature of the topic*)

EE 560 Special Topics in Elementary Education (variable credit)

Special topics of current relevance in elementary education will be offered from time to time. The topic to be addressed will be announced in pre-registration publications. May be taken more than once with the consent of the adviser. (*Prerequisite: Course prerequisites may be specified depending upon the nature of the topic*)

EE 561 Current Issues in Early Childhood Education (3 crs.)

Exploration of issues confronting the early childhood educator today. Examination of public policy issues, sex stereotyping, mainstreaming, back-to-basics, parent education, bilingual and multi-ethnic education and family structure.

EE 562 Early Childhood Curriculum - Ages 2-5 (3 crs.)

Provides students with opportunities to explore all aspects of preschool and kindergarten program curricula. Course focuses on planning and implementing curriculum in readiness skills, language development and communication arts. Observation and participation field component included.

EE 563 Early Childhood Curriculum - Ages 5-7 (3 crs.)

For students interested in planning teaching strategies for primary grades. Course explores language arts, math, science, social sciences and classroom management. Observation and participation field component included.

EE 564 Administration of Early Childhood Programs (3 crs.)

Attention is given to administration of various early childhood settings with emphasis on state licensing regulations, staff development, physical planning, budget matters, program evaluation and home-school relationships. Discussions, reading and role playing are used.

*School of Education & Allied Studies***EE 566 Technological Applications for Education (3 crs.)**

This course offers the participant the opportunity to become technologically literate and to be able to create a classroom environment which allows new tools to be used for teaching and learning. An additional goal of the course is to allow the participant to work with information storage and retrieval materials linked to the curriculum in non-threatening, understandable and applicable ways.

EE 567 Contemporary Teaching Techniques for Mathematics (3 crs.)

Along with creating a comfortable mathematics environment, this course considers how to assist the student in problem-solving processes; appraisal of current mathematical programs; diagnosing computational error patterns; integrating the computer into the mathematics curriculum. Other selected topics are explored in light of current mathematical standards and trends. *(Prerequisite: EE 350)*

EE 570 Special Topics in Early Childhood Education (1-4 crs.)

Special topics of current relevance in early childhood education will be offered from time to time. The topic to be addressed will be announced in pre-registration publications. May be taken more than once.

EE 572 Strategies of Teaching Reading in the Middle School (3 crs.)

Designed to teach the instructional models in reading necessary to aid the middle school child in the acquisition of vocabulary and skill competence. Processes for the guiding of the transfer of these skills to content area reading will be taught. *(Prerequisite: Bachelor's degree and teaching certificate)*

EE 573 Developing Elementary School Curriculum (3 crs.)

This course will organize its members into a curriculum committee and will, by democratic group process, prepare an elementary curriculum guide for a specific subject or subject area. Most of the resource materials used in the guide will originate in various current elementary programs. Each participant will receive a copy of the finished guide.

EE 575 Graduate Seminar in Early Childhood Education (3 crs.)

A study of problems and issues related to the education of young children. Emphasis will be placed on current research, learning theories, curricular and methodological concerns. Each student will make an extensive study of a significant issue related to Early Childhood Education. *(Prerequisite: completion of all required M.Ed. courses)*

EE 580 LOGO for the Microcomputer in the Elementary Classroom (3 crs.)

LOGO is the programming language used by elementary students; one of its primary functions is to develop problem-solving skills. This course provides an overview of the history and philosophy of LOGO, practical application of the language's fundamental ideas and covers classroom implementation. Designed for K-6 teachers and supervisory personnel. *(Prerequisite: EE 468 or consent of the instructor)*

EE 590 Advanced Research Topics in Computer Education for the Elementary School (3 crs.)

Students accepted will pursue an individualized program of advanced study and research on a substantive topic pertaining to computers in education, eventuating in an acceptable documented treatise. Students will plan, prepare and implement a course of personal study as it re-

lates to the delineated topic. Included will be a defined period of time to observe and participate in an educational field or laboratory experience germane to computers in education. Periodic meetings will be scheduled with the instructor. *(Prerequisite: completion of or enrollment in last courses of degree program)*

EE 592 Practicum—Elementary Education (12 crs.)

This graduate level practicum involves supervised experiences in classroom activities and experiences gained in teaching techniques, individual differences and classroom management. Opportunities available in a variety of instructional environments. Supervision by the cooperating teacher and college supervisor. Full time for either one quarter or a full semester. *(Prerequisite: acceptance and good standing in Teacher Preparation Program) Either semester*

EE 593 Internship—Elementary Education (6 crs.)

In this graduate level internship, a minimum of 30 clock hours will be required in grades 1-6 setting as an elementary teacher. Internship must be less than full time but at least one fifth time employment as an elementary school teacher. Request for this course must be made to the Professional Education office. *(Prerequisite: consent of the department)*

EE 596 Practicum—Early Childhood Education (12 crs.)

This graduate level practicum involves an eight or fifteen week field experience at the K-2 level under the guidance of a cooperating teacher and a college supervisor. Opportunities for participation in pupil observation, program planning and utilization of contemporary teaching strategies. *(Prerequisite: acceptance and good standing in Teacher Preparation Program) Either semester*

EE 597 Practicum—Preschool (6 crs.)

This graduate level practicum involves supervised student teaching experience in a preschool setting with children, infancy through age five. Emphasis on development, implementation and evaluation of innovative preschool programs. The student participates in a total program, five days a week for eight weeks in either day care center, nursery school or head start program. *(Prerequisite: acceptance and good standing in Teacher Preparation Program) Either semester*

EE 598 Internship—Early Childhood Education (6 crs.)

This graduate level internship involves a minimum of 300 clock hours in a Pre-K-3 grade setting as an early childhood teacher. Internship must be less than full time but at least one fifth time employment as an early childhood teacher. Request for this course must be made to the School of Education and Allied Studies Office. *(Prerequisite: consent of the department)*

Other Approved Courses:

EE 565 Math Anxiety: Theories and Principles for Elementary School Personnel

EE 568 Systematic Training for Effective Teaching

EE 578 Educational Software Development and Computer Applications I

EE 579 Educational Software Development and Computer Applications II

EE 581 LOGO II and Educational Applications

EE 584 Educational Software Development: Files

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Reading

RD 503 Directed Study (credit to be arranged)

Designed for the graduate student who desires to study selected topics in a specific field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

RD 549 Reading in the Content Areas (3 crs.)

Designed in a workshop format to have students use their own textbooks to develop exercises which aid children in processing content print. Direct and indirect strategies for teaching vocabulary, reading processes, skill acquisition lessons, study guides, and levels of questioning are analyzed and utilized as they apply to the different content material.

RD 550 Improving Literacy Instruction (3 crs.)

Teachers are introduced to the subject matter which constitutes effective literacy instruction (all levels). They examine the characteristics which are consistent with the social-constructivist theory of learning and develop a knowledge base of literacy instruction which benefits students' comprehension of text.

RD 551 Case Studies in Literacy Acquisition & Development (3 crs.)

Through case studies, teachers develop their understanding of language development, cognition and learning. Knowledge of the reading and writing processes provides the foundation for instruction and assessment.

RD 552 Literacy Assessment Principles and Techniques (3 crs.)

Teachers use formal and informal diagnostic procedures to measure, monitor and report literacy processes: elements of letter knowledge, word knowledge, syntactic knowledge, schematic knowledge and studying and thinking strategies. (*Up to 25 hours of field work as needed.*) (*Prerequisite: RD 551*)

RD 553 Issues in Literacy Education (3 crs.)

Teachers prepare for their role as literacy specialists and consultants through extensive reading, writing, research, discussion, and debate to advance their thinking in a range of complex political and educational issues which impact the local, national, and global community.

RD 555 Supervision and Administration of Literacy Programs (3 crs.)

Teachers research, examine and appraise components of effective literacy programs (all levels). They develop strategies for creating a literate environment, organizing and planning for effective instruction, and communicating information about language and learning. (*Prerequisite: 9 graduate credits in reading or consent of instructor.*)

RD 556 Literacy Curriculum Development and Implementation (3 crs.)

A field experience option, teachers apply their knowledge of philosophy and theory of language development, cognition and learning, and the processes of reading and writing to develop a Pre-K-12 literacy curriculum framework (up to 75 hours of field work, as needed). (*Prerequisite: consent of adviser or instructor.*)

RD 558 Clinical Experience for a Consulting Teacher of Reading I (3 crs.)

Candidates assume the role of consulting teacher of reading in working with students and teachers in a supervised field experience (up to 200 hours of field work, as needed). (*Prerequisite: consent of adviser*)

RD 559 Clinical Experience for a Consulting Teacher of Reading II (3 crs.)

Candidates expand the role of consulting teacher of reading as they assume leadership in literacy programs in a school setting (up to 200 hours of field work, as needed). (*Prerequisite: consent of adviser*)

RD 560 Research Seminar I (1 cr.)**RD 561 Research Seminar II (2 crs.)**

RD 560 is offered during the fall term and RD 561 is offered during the spring term. Through these combined courses, candidates for the master's degree and/or certification in reading examine, review, analyze and reflect upon their academic and professional experiences as they relate to literacy education and continued professional development. They conduct and report on an in-depth systematic investigation of literacy programs and practices. (*Prerequisites: RD 558 is a prerequisite for RD 560. RD 560 is a prerequisite for RD 561.*)

RD 570 Special Topics in Literacy Education (1 - 4 crs.)

Special topics of current relevance in literacy education will be offered. The topic to be addressed will be announced in pre-registration publications. May be taken more than once.

RD 650 Research in Literacy Curriculum and Instruction (3 crs.)

Curriculum designers and instructional leaders will enhance their knowledge of educational research and refine strategies for using published research to support the development and implementation of changes in curriculum and instruction. (*Prerequisites: Consent of the Instructor*)

RD 651 Socio-psycholinguistics and Critical Literacy (3 crs.)

Students will study the history of reading instruction in the United States to understand the learning theories which have influenced methods and materials for classroom practice. This historical perspective provides the foundation for interaction among researchers, teachers, and curriculum developers in response to our changing knowledge about basic cognitive processes in a world of rapidly changing media forms and technologies. (*Prerequisites: Consent of the Instructor*)

RD 652 Cultural Foundations of Literacy (3 crs.)

Students will develop their own cognitive framework for the acquisition of literacy and create a synthesis of their professional knowledge of the linguistic foundations of literacy, the reading process, and the strategies that enable readers to use the cueing systems of all written languages. (*Prerequisites: Consent of the Instructor*)

RD 653 Diagnosis, Assessment, and Evaluation of Student Performance and Program Effectiveness (3 crs.)

Students will learn and practice a diagnostic, decision-making model for informing individual and group literacy instruction. The diagnostic process guides the reading consultant in gathering and integrating background information, previous and current data, as well as ancillary information pertinent to more individualized forms of clinical

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instruction where needed, and to more effective group practices in the K-12 spectrum. Efficient diagnosis explicates the interpretive processes for understanding and improving the literacy behaviors of all students (Up to 75 hours of field work as needed).

RD 654 Principles and Programs in Professional Development (3 crs.)

Students will examine their role as educational leaders and agents of change in the educational community. Guided by a thorough knowledge of national and local trends and mandates, students will explore ways for developing human partnerships, relationships, and mentorships through clinical supervision, teacher development activities, and community efforts which support sound literacy educational principles and programs (Up to 75 hours of field work as needed). (*Prerequisites: Consent of the Instructor*)

RD 655 Case Studies in K-12 Literacy Curriculum and Instruction (3 crs.)

Through selected case studies of K-12 school districts, students will expand their understanding of the role of the educational consultant. Using a variety of techniques to assess and evaluate the effectiveness of existing language arts curriculums and related initiatives, students will develop well-documented reports of program needs, and make recommendations for more effective instruction and practice (up to 75 hours of field work as needed). (*Prerequisites: Consent of the Instructor*)

RD 670 Seminar (3 crs.)

This course serves as a foundation for curriculum leadership in literacy education. Students will examine and explore educational trends, values, and vision to develop a personal statement of beliefs for literacy education at all levels. This will serve as the foundation for exploring issues in critical pedagogy for multiple literacies, as essential to today's educational planning. Students will identify an area of instructional practice for additional research.

RD 681 CAGS Extern Program (3 crs.)

All CAGS students must complete a multimedia project in exemplary literacy instructional practices. The project will feature theory as demonstrated through practice. The project will serve as a resource for practitioners in the region. This course focuses on the implementation, documentation, and reporting of the student's multimedia literacy project. Participants, working under the guidance of the instructor, complete their projects and defend them in oral comprehensive examinations.

RD 682 CAGS Extern II (1 cr.)

A continuation of RD 681. Students who do not complete their multimedia project in exemplary literacy instructional practices in RD 681 will be required to register for RD 682 each semester thereafter (fall and spring) until the project is completed. (*Prerequisite RD 681*).

Department of Movement Arts, Health Promotion & Leisure Studies

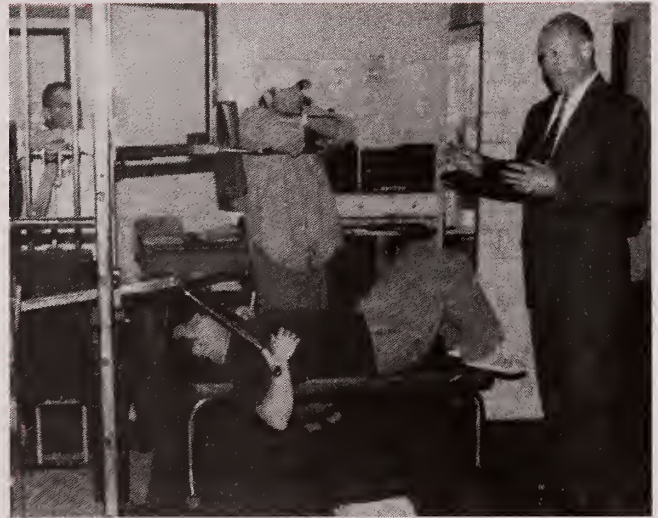
Faculty

Chairperson: Professor Marcia Anderson

Professors: Edward Braun, Carolyn Cramer,
Paul Dubois, Robert Frederick,
Janice Harris, Edward Hart,
Robert Haslam, Joseph Huber,
Nancy Moses, Amos Nwosu

Associate Professors: Cheryl Hitchings, Peter Mazzaferro

Assistant Professors: Deborah Lee Arthur, Lydia Burak,
Mark Bailey, John Kilbourne,
Kathleen Laquale,
Susan Rayl, Pamela Russell,
Susan Tarr, Joseph Yeskewicz



The Department of Movement Arts, Health Promotion, and Leisure Studies offers both undergraduate and graduate programs in the areas of Health Promotion and Physical Education.

At the undergraduate level the department offers a major in Physical Education which leads to a Bachelor of Science or Bachelor of Arts degree, and minors in Coaching, Health Promotion, Recreation and Exercise Physiology.

A minor in Dance is offered jointly by the Department of Movement Arts, Health Promotion, and Leisure Studies and the Department of Communication Studies and Theatre Arts.

A minor in Health Resources Management is offered jointly by the Department of Movement Arts, Health Promotion and Leisure Studies and the Department of Management.

Graduate study offered by the department includes a program in the area of Health Promotion which leads to a Master of Education in Health Promotion and a program in the area of Physical Education which leads to a Master of Science in Physical Education. Post baccalaureate programs for teacher certification (provisional with advanced standing) in physical education and health education are available and are described under the department's graduate programs. A clinical Master of Arts in Teaching program in the areas of

physical education and health education, which lead to standard certification, are also offered.

The department offers a variety of undergraduate and graduate courses in Movement Arts, Health Promotion and Leisure Studies for all students of the college.

Department Objectives

1. Provide a quality physical education liberal arts major program with a variety of concentrations providing professional preparation.
2. Provide quality physical education activity courses to assist students in developing lifetime activity patterns.
3. Provide quality courses to deal with health promotion issues.
4. Instill an atmosphere of health and well being for students.

Career Opportunities

The physical education major program is an arts and science major. Career opportunities are tied to the concentrations where a student develops knowledge and application of that knowledge in a professional capacity.

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Undergraduate Programs

Bachelor of Arts/Bachelor of Science

The Movement Arts, Health Promotion, and Leisure Studies Department offers the Physical Education major an opportunity to elect an area of study from among seven concentrations (areas of specialization).

Five of these concentrations have been developed to prepare graduates to pursue career opportunities in community-based organizations such as business, industry, agencies and hospitals. These concentrations, which include field experiences in various settings in the community, have expanded the role of the professional in the fields of physical education and health promotion beyond the teaching environment in schools, thus preparing the graduate for new career opportunities.

Teacher Certification programs in both Health and Physical Education are also available for those students who wish to teach in the public schools. These students may elect one of two Teacher Certification concentrations in Physical Education (Pre-K-9) (5-12) or a minor in Teacher Certification in Health Education (Pre-K) (5-12).

Physical Education Major

Students majoring in Physical Education must achieve a minimum of C- in all core courses and repeat any core courses in which they receive a grade lower than C-. In addition students must complete a minimum of 120 credits for graduation. This requirement includes the following 30 credit major courses and cognates:

- PE 100 Applied Musculoskeletal Anatomy
- PE 117 Historical and Philosophical Foundations of Sport and Physical Education
- PE 217 Principles of Motor Learning
- PE 220 Biomechanics
- PE 318 Socio-Cultural Foundations of Sport
- PE 401 Physiology of Exercise

At least one of the following*:

- PE 146 Dance Appreciation
- PE 251 Dance History
- PE 255 Creative Dance I
- PE 256 Creative Dance II
- PE 324 Physical and Motor Development of Individuals with Disabilities
- PE 402 Exercise Metabolism
- PE 405 Exercise Circulation: Mechanisms/Morphology
- PE 465 Theory and Development of Play
- PE 470 Sociology of Sport

- BI 280 Human Physiology
- HE 405 Drugs in Society
- HE 471 Nutrition

9 physical education activity courses**

Cognates:

- BI 102 Introduction to Zoology
- PY 100 Introductory Psychology

**Some concentrations or certification programs have specific course requirements. Contact the department chairperson or faculty program liaison for information on these requirements.*

***Concentrations have selected appropriate activity course(s).*

The remaining credits necessary for completion of the degree include the General Education Requirements and one or more of the following selections:

1. elect from the seven concentrations listed below available to the Physical Education major;
2. develop an individualized program of study (with assistance of an adviser);
3. combine the Physical Education major with a major or minor in another discipline;
4. combine several of the above.

Athletic Training Concentration

This concentration is accredited by the Committee on Accreditation of Allied Health Educational Programs (CAAHEP), and prepares the Physical Education major with the necessary academic and clinical experiences to sit for the National Athletic Trainers Certification Examination. The program includes courses in injury prevention, the recognition, assessment, and immediate care of athletic injuries, health care administration, and professional development and responsibility.

Admission into the program is limited and competitive. Students interested should contact the director of the athletic training program prior to declaring their concentration in athletic training.

- PE 240 Introduction into Athletic Training
- PE 241 Apprenticeship in Athletic Training
- PE 340 Sports Injury Management - Lower Extremity
- PE 341 Sports Injury Management - Upper Extremity
- PE 342 Clinical Application of Basic Athletic Training Skills
- PE 343 Clinical Application of Intermediate Athletic Training Skills

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PE 442 Therapeutic Exercise
 PE 450 Therapeutic Modalities
 PE 454 Clinical Application of Advanced Athletic
 Training Skills
 PE 455 Professional Preparation in Athletic Training
 PE 490 Administration of Athletic Training

Cognate courses:

**BI 280 Human Physiology

or

BI 252 Human Anatomy and Physiology II

PH 181 Elements of Physics I

**HE 405 Drugs in Society

**HE 471 Nutrition

A chemistry or physics course

***Courses in concentration identified as part of major*

Coaching Concentration

This concentration prepares the Physical Education major to apply concepts and principles related to all aspects of coaching, including the player, team, coach, and administration of athletic programs for youth and adults. The field experience is an important aspect of this concentration.

PE 240 Introduction into Athletic Training
 PE 325 Methods and Techniques in Coaching
 Individual Sports
 PE 327 Methods and Techniques in Coaching Team Sports
 PE 361 Officiating Individual Sports
 PE 362 Officiating Team Sports
 PE 414 Coaching
 PE 481 Organization and Administration of School Athletics
 PE 498 Field Experience in Physical Education

**HE 471 Nutrition

Current certification from the American Red Cross for Standard First Aid and CPR or equivalent.

***Courses in concentration identified as a part of major*

Exercise Science/Health Fitness Concentration

This concentration prepares students for career opportunities in health and fitness in such settings as industry, hospitals, agencies, education and human service organizations. Emphasis is on cardiovascular health, which includes physical health evaluation, graded exercise tests, exercise prescription, and physical activity program development. A field experience off campus in a setting identified above is an important aspect of this concentration.

PE 201 Apprenticeship in Exercise Science/Health Fitness
 PE 400 Physiology and Techniques of Strength Fitness

PE 402 Exercise Metabolism
 PE 403 Cardiovascular Function, Analysis and Evaluation
 PE 404 Exercise Prescription and Cardiac Rehabilitation
 **PE 405 Exercise Circulation: Mechanics and Morphology
 PE 409 Planning, Implementing & Evaluating
 Fitness Programs
 PE 498 Field Experience in Physical Education
 **HE 471 Nutrition

*** Courses in concentration identified as part of major.*

Motor Development Therapy/Adapted Physical Education Concentration

This concentration prepares the Physical Education major to work with disabled and handicapped children, youth and adults. The program focuses on physical education to meet the developmental, sport, dance and leisure time needs of special populations as well as the emotional and social needs of those individuals. The concentration prepares graduates for career opportunities in rehabilitation centers, clinics, hospitals, social agencies and private and public schools. Opportunities for practical experience are provided through off-campus field experiences as well as the department-sponsored Children's Physical Developmental Clinic.

**PE 324 Physical and Motor Development of Individuals
 with Disabilities

PE 451 Prosthetics and Orthotics

PE 494 Advanced Study of Motor Programs for
 Individuals with Chronic Health Conditions

PE 498 Field Experience in Physical Education

PY 224 Child Psychology

or

PY 226 Adolescent Psychology

PY 327 Psychology of Exceptional Children

or

PY 328 Psychology of Mental Retardation

PY 355 Behavior Modification

PY 370 Abnormal Psychology

*** Courses in concentration identified as part of major.*

Students with a liberal arts major in physical education and a major in special education may select the Motor Development Therapy/Adapted Physical Education Concentration. The academic program for the concentration is adjusted slightly to accommodate those students.

PE 324 Physical & Motor Development of Individuals
 with Disabilities

PE 451 Prosthetics and Orthotics

PE 494 Advanced Study of Motor Programs for
 Individuals with Chronic Health Conditions

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- PY 224 Child Psychology
or
PY 226 Adolescent Psychology
SE 202 The Learner with Special Needs in School and Society
SE 203 Social, Racial, and Linguistic Backgrounds of Special Needs Learner
SE 302 Principles and Application of Behavioral Management for the Special Needs Learner

Recreation Concentration

This concentration provides the Physical Education major with the knowledge and skills necessary to pursue careers in a wide variety of leisure service settings. Specifically, students who have combined the study of Physical Education with the Recreation Concentration will be capable of arranging leisure time experiences and providing leadership for children and adults in government, industry, and community service agencies.

- RC 230 Introduction to Recreation
RC 332 Leadership and the Group Process
RC 461 Organization and Administration in Recreation
RC 462 Programming for Recreation and Leisure
RC 498 Field Experience in Recreation
(recommended elective experience)
SO 102 Introduction to Sociology

One of the following:

- **PE 146 Dance Appreciation
**PE 324 Physical and Motor Development of Individuals with Disabilities
**PE 465 Theory and Development of Play
**PE 470 Sociology of Sport

*** Courses in concentration identified as part of major.*

Teacher Certification Concentrations

The teacher certification options available to students are noted.

Teacher Certification in Physical Education - (Pre-K-9)

Prerequisites:

1. Acceptance in Physical Education major
2. Acceptance in Department and School of Education and Allied Studies Teacher Preparation Programs

Required Courses:

- *PE 205 Introduction to Teaching Physical Education in the Public Schools
PE 225 Observation and Analysis of Movement for Children

- **PE 324 Physical and Motor Development of Individuals with Disabilities
PE 326 Teaching Physical Education to Children
PE 329 Teaching and Curriculum Development in Middle and Junior High School
PE 412 Planning, Implementation and Evaluation in Teaching Physical Education
PE 491 Field Based Pre-practicum
PY 224 Child Psychology
PE 492 Practicum in Student Teaching (5-12) - Physical Education

Current certificate from the American Red Cross for Standard First Aid and CPR.

A grade of C- or better is necessary in each of the courses listed above to be admitted to student teaching.

**To be completed prior to admission to Professional Education and enrollment in all other teacher certification courses.*

Teacher Certification in Physical Education - (5-12)

Prerequisites:

1. Acceptance in Physical Education major
2. Acceptance in Department and School of Education and Allied Studies Teacher Preparation Programs

Required Courses:

- *PE 205 Introduction to Teaching Physical Education in the Public Schools
PE 312 Strategies and Analysis of Teaching Physical Activities
PE 315 Teaching Team and Individual Sports
**PE 324 Physical and Motor Development of Individuals with Disabilities
PE 329 Teaching and Curriculum Development in Middle and Junior High School
PE 412 Planning, Implementation and Evaluation in Teaching Physical Education
PE 491 Field Based Pre-Practicum
PY 226 Adolescent Psychology
PE 492 Practicum in Student Teaching (5-12) - Physical Education

Current certificate from the American Red Cross for Standard First Aid and CPR.

A grade of C- or better is necessary in each of the courses listed above to be admitted to student teaching.

**To be completed prior to admission to Professional Education and enrollment in all other teacher certification courses.*

*** Courses in concentration identified as part of major.*

*Movement Arts, Health Promotion & Leisure Studies***Minors****Coaching Minor**

The coaching minor meets the needs of the coaching profession by providing an opportunity for students who are not majoring in physical education to combine the study of coaching with a major in any discipline. This multidisciplinary program approach will prepare the student for coaching related careers in community-based organizations such as youth sports programs, church programs, recreational settings and school settings.

- PE 190 Conditioning
- PE 217 Principles of Motor Learning
- PE 220 Biomechanics
- PE 240 Introduction into Athletic Training
- PE 318 Socio-Cultural Foundations of Sport
- PE 325 Methods and Techniques in Coaching
Individual Sports
- or
- PE 327 Methods and Techniques in Coaching
Team Sports
- PE 414 Coaching
- PE 498 Field Experience in Physical Education (3 crs. only)

Dance Interdisciplinary Minor

This program, offered in cooperation with the Department of Communication Studies and Theatre Arts, is designed to give students an overall experience and appreciation for dance as an art form and educational vehicle. It is designed to supplement major work in Theatre Arts, Physical Education, Music, Art, and Elementary Education. The program includes the study of techniques of various styles of dance, dance history and theory, choreography and production.

Courses include:

- CT/PE 255 Creative Dance I
- CT/PE 256 Creative Dance II
- CT/PE 251 Dance History
- CT/PE 155 Dance Practicum (two semesters)
- CT/PE 357 Dance Production Theory
- CT/PE 358 Dance Production Techniques
- PE 154 Ballet

Four credits in the following:

- PE 153 Jazz Dance
- PE 166 African Dance
- PE 167 Street Dance
- PE 258 Modern Dance Technique
- PE 259 Dance Repertory

- PE 262 Modern Dance II
- PE 243 Ballet II
- PE 253 Jazz Dance II

Choose one:

- PE 161 Folk Dance
- PE 164 Square Dance
- PE 168 Ballroom Dance

MU 160 Music: A Listening Approach is recommended but not required.

(All activity courses successfully completed in this minor count toward the minimum 120 degree credits required for graduation.)

Exercise Physiology Minor

A minor in Exercise Physiology is available to students not majoring in physical education who desire in-depth study of how the body reacts to participation in physical exercise. Emphasis is on strength development, cardiovascular function, metabolism, exercise prescription, and the interaction of body systems. Career opportunities are available in health and fitness settings associated with industry, hospitals, agencies and human service organizations.

- PE 400 Physiology and Techniques of Strength Fitness
- PE 401 Physiology of Exercise
- PE 402 Exercise Metabolism
- PE 403 Cardiovascular Function, Analysis and Evaluation
- PE 404 Exercise Prescription and Cardiac Rehabilitation
- BI 102 Introduction to Zoology
- HE 471 Nutrition

Health Promotion Minor

The department offers a Health Promotion minor which is open to all undergraduates. The Health Promotion minor provides an opportunity for students to combine the study of health with a major in any discipline. This multidisciplinary program approach will prepare the student for health-related careers in community-based organizations, such as business, industry, hospitals, and agencies that deal with health problems, health promotion, or health services.

- HE 102 Health Science
- HE 430 Principles and Practices of Epidemiology

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HE 474 Community Health

and either:

Community Health Promotion option

HE/SW 403 Interdisciplinary Approaches to the
Development of Health Services

HE 450 Health Promotion Strategies

HE 477 Environmental Health

HE — Health Elective

or

School Health Promotion option

HE 401 Human Sexuality

HE 405 Drugs in Society

HE 471 Nutrition

HE — Health Elective

Students who take the Health Promotion minor and wish to be certified to teach in public schools should refer to the Teacher Certification program information of the department's offerings.

Health Resources Management Interdisciplinary Minor

The Department of Movement Arts, Health Promotion and Leisure Studies cooperates with the Department of Management in offering an interdisciplinary minor in Health Resources Management.

Students from relevant liberal arts and other related programs may elect this minor to develop skills and background knowledge to gain employment at the entry level of health care delivery management. This minor is most appropriate for students in the Social Sciences, Social Work, Physical Education, Communication Arts, Management and other human service oriented professions.

Required core:

HE 102 Health Science

HE/SW 403 Interdisciplinary Approaches to the
Delivery of Health Services

HE 474 Community Health

AF 240 Accounting I

MG 130 Principles of Management

MG 140 Human Resources Management

Electives (choose one):

HE 401 Human Sexuality

HE 405 Drugs in Society

HE 471 Nutrition

HE 477 Environmental Health

AF 241 Accounting II

AF 385 Managerial Finance

MG 200 Marketing Principles

MG 375 Personnel Development

Recreation Minor

The Recreation minor is open to all undergraduates. It provides a multidisciplinary approach to producing recreation professionals capable of administering, supervising and leading leisure services. Students minoring in Recreation may choose to specialize in one of the following: Therapeutic Recreation, Outdoor Recreation, Play Specialist or Recreation Generalist. Students who complete the Recreation minor will be prepared to assume careers in a wide variety of settings — social institutions, hospitals, business and industry, preschools, community schools, Y's, the out-of-doors (challenge/adventure/Outward Bound), and government correctional institutions.

RC 230 Introduction to Recreation

RC 332 Leadership and the Group Process

RC 461 Organization & Administration of Public Recreation

RC 462 Programming for Recreation and Leisure

Two additional courses in recreation to be chosen with department approval depending upon elected area of specialization.

RC 498 Field Experience in Physical Education

(recommended elective experience)

Teacher Certification in Health Education (Pre-K-9) Minor

SE 202 The Learner with Special Needs in School and Society

EE 220 Principles of Teaching

HS 230 Educational Psychology

EE 360 Education Evaluation

HE 450 Health Promotion Strategies

HE 482 Health in the Elementary School

HE 495 Field Based Pre-Practicum-Health Education

HE 496 Practicum in Student Teaching-Health (Pre-K-9)

Cognate Courses:

PE 100 Anatomy

or

BI 251 Human Anatomy and Physiology I

BI 280 Human Physiology

or

BI 252 Human Anatomy and Physiology II

or

PE 401 Physiology of Exercise

*Movement Arts, Health Promotion & Leisure Studies***Teacher Certification in Health Education
(5-12) Minor**

HE 200 Principles and Practices of Health Education
 HE 450 Health Promotion Strategies
 *HS 220 Teaching in the High School
 or
 *ED 221 Teaching in the Middle School I
 HS 230 Educational Psychology
 HS 370 Evaluating Teaching and Learning in the
 High School
 HE 491 Field Based Pre-Practicum-Health Education
 HE 492 Student Teaching Practicum-Health Education
 PY 100 Introductory Psychology
 BI 102 Introduction to Biology
 PE 100 Anatomy
 BI 280 Human Physiology
 or
 BI 251-252 Human Anatomy and Physiology I and II

**To be completed prior to admission to Professional Education and enrollment in upper division courses.*

Current certification from the American Red Cross for Standard First Aid and CPR.

**Double Major With Elementary Education or
Early Childhood Education**

Students may choose a double major in Physical Education and Elementary Education or Early Childhood Education. Appropriate advising materials with suggested course sequences are available in the department.

Double Major With Special Education

Students may choose a double major in Physical Education and Special Education. A student may also choose a double major in Special Education and Physical Education with a concentration in Motor Development Therapy.

Graduate Programs

The Movement Arts, Health Promotion, and Leisure Studies Department offers several programs designed to meet the needs of graduate students: post baccalaureate programs that allow students to apply for provisional certification with advanced standing as a Teacher of Physical Education (Pre-K-9 or 5-12) or Teacher of Health Education ((Pre-K-9 or 5-12), and a clinical master's program that leads to the degree of Master of Arts in Teaching (Physical Education or Health Education) and provides eligibility for standard certification. In addition the department offers programs leading to the degrees of Master of Education in Health Promotion and Master of Science in Physical Education.

**Post Baccalaureate "Provisional With Advanced
Standing" Certification Program
Teacher of Physical Education (Pre-K-9, 5-12)**

This program is designed for persons who have a bachelor's degree and wish to be certified as a Teacher of Physical Education (Pre-K-9, 5-12). Students who successfully complete the curriculum below are eligible to apply for provisional certification with advanced standing.

For information regarding application procedures and admission standards, students should consult the *Graduate School* section of this catalog.

Students seeking provisional certification with advanced standing should consult the section of this catalog entitled *School of Education and Allied Studies* for information pertaining to professional certification, admission to and retention in Professional Education, as well as important institutional deadlines.

In addition to GP 501 Graduate Program Planning (1 cr.), students accepted to the post baccalaureate certification program must complete the following:

1. Physical Education major or the following 30 credits:
 - PE 100 Applied Musculoskeletal Anatomy
 - PE 117 Historical/Philosophical Foundations of Sport and Physical Education
 - PE 217 Principles of Motor Learning
 - PE 220 Biomechanics
 - PE 318 Socio-Cultural Foundations of Sport
 - PE 324 Physical and Motor Development of Individuals with Disabilities
 - PE 401 Physiology of Exercise
- Nine activities courses designated by the department.
 Teacher Certification courses

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Pre-K-9

*PE 205 Introduction to Teaching Physical Education in the Public Schools

PE 225 Observation and Analysis of Movement for Children

PE 326 Teaching Physical Education to Children

PE 329 Teaching & Curriculum Development in Middle/JHS

PE 412 Planning Implementation & Evaluation in Teaching PE

PE 491 Field Based Pre-Practicum

PE 492 Student Teaching Practicum (5-12) Physical

PY 224 Child Psychology

or

PY 227 Development Through the Lifecycle

Current certificate from the American Red Cross for Standard First Aid and CPR

or

5-12

*PE 205 Introduction to Teaching Physical Education in the Public Schools

PE 312 Strategies and Analysis in Teaching Physical Activities

PE 315 Teaching Team & Individual Sports

PE 329 Teaching & Curriculum Development in Middle/JHS

PE 412 Planning Implementation & Evaluation in Teaching PE

PE 491 Field Based Pre-Practicum (5-12) Physical Education

PE 492 Student Teaching Practicum (5-12) Physical

PY 226 Adolescent Psychology

or

PY 227 Development Through the Lifecycle

Current certificate from the American Red Cross for Standard First Aid and CPR

**To be completed prior to admission to Professional Education and enrollment in any other teacher certification courses.*

Post-Baccalaureate "Provisional With Advanced Standing" Certification Program Teacher of Health Education

This program is designed for persons who have a bachelor's degree and wish to be certified as a Teacher of Health Education (Pre-K or 5-12). Students who successfully complete the curriculum below are eligible to apply for provisional certification with advanced standing.

For information regarding application procedures and admission standards, students should consult the *Graduate School* section of this catalog.

Students seeking provisional certification with advanced standing should consult the section of this catalog entitled *School of Education and Allied Studies* for information pertaining to professional certification, admission to and retention in Professional Education, as well as important institutional deadlines.

In addition to GP 501 Graduate Program Planning (1 cr.) students accepted to the post baccalaureate certification program must complete the following:

PY 100 Introduction to Psychology

BI 102 Introduction to Zoology

PE 100 Anatomy and BI 280 Human Physiology

or

BI 251-252 Human Anatomy and Physiology I and II

HE 102 Health Science

HE 430 Principles and Practices of Epidemiology

HE 474 Community Health

HE 401 Human Sexuality

HE 405 Drugs in Society

HE 471 Nutrition

HE — Elective

Teacher Certification, Pre-K-9

SE 202 The Learner with Special Needs in School and Society

EE 220 Principles of Teaching

HS 230 Educational Psychology

EE 360 Education Evaluation

HE 450 Health Promotion Strategies

HE 482 Health in the Elementary School

HE 495 Field Based Pre-Practicum-Health Education (Pre-K-9)

HE 496 Practicum in Student Teaching-Health (Pre-K-9)

Cognate Courses:

PE 100 Anatomy

or

BI 251 Human Anatomy and Physiology I

BI 280 Human Physiology

or

BI 252 Human Anatomy and Physiology II

or

PE 401 Physiology of Exercise

Teacher Certification, Grades 5-12

HE 200 Principles and Practices of Health Education

HE 450 Health Promotion Strategies

*HS 220 Teaching in the High School

or

*ED 221 Teaching in the Middle School

Movement Arts, Health Promotion & Leisure Studies

HS 230 Educational Psychology
 HS 370 Evaluating Teaching and Learning in the High School
 HE 491 Field Based Pre-Practicum Health Education -
 (5-12)

HE 492 Practicum Student Teaching - Health
 Current Certificate from the American Red Cross for
 Standard First Aid and CPR

**To be completed prior to admission to Professional Education and enrollment in upper division courses.*

Post-Baccalaureate Athletic Training Program

This program is designed for persons who have a bachelor's degree and wish to meet the national standards for accreditation as an athletic trainer.

The program includes courses in injury prevention, the recognition, assessment, and immediate care of athletic injuries, health care administration, and professional development and responsibility.

For information regarding application procedures and admission standards, students should consult the Graduate School section of this catalog.

In addition to GP 501 Graduate Program Planning (1 cr.), students accepted to the post baccalaureate program must complete the following:

PE 546 Biomechanics of Sport
 or

PE 220 Biomechanics

PE 340 Sports Injury Management: Lower Extremities

PE 341 Sports Injury Management: Upper Extremities

PE 401 Physiology of Exercise

PE 442 Therapeutic Exercise

PE 450 Therapeutic Modalities

PE 490 Administration of Athletic Training

HE 471 Nutrition

One 400 or 500 level course in the area of personal and community health or drugs in sport

PE 595 Internship in Physical Education

**Master of Arts in Teaching
 Clinical Master's Program
 Physical Education****Certification Program (Standard Level)**

This master's degree program is designed for persons who have provisional certification with advanced standing and

are seeking standard certification in the area of physical education (Pre-K-9 or 5-12).

For information regarding application procedures and admission standards, students should consult the *Graduate School* section of this catalog.

Students seeking standard certification should consult the section of this catalog entitled *School of Education and Allied Studies* for information pertaining to professional certification, admission to and retention in Professional Education, as well as important institutional deadlines.

GP 501 Graduate Program Planning

All accepted students must enroll under the direction of their adviser in GP 501 Graduate Program Planning, which is described under "Graduate Adviser and Program Planning" in the *Graduate School* section of this catalog. As part of their program, students must satisfactorily complete the following curriculum:

Education Core

ED 530 Research Methods

ED 531 The Curriculum Experience

ED 532 Critical Issues - Educators and Society

ED 533 Effective Practices in Human Development & Learning

ED 534 Clinical Experience (6 crs.)

ED 537 Applied Research Project (2 crs.)

(Course descriptions for ED 530-537 are provided in the *School of Education and Allied Studies* section of this catalog.)

Discipline Area Requirements

PE 514 Improving Teaching Effectiveness in PE (3 crs.)

PE 528 Classroom Management for Student

Achievement in Physical Education (2 crs.)

PE 529 Movement Skill Development (2 crs.)

PE 530 The Motor Domain Implications for Chronic Disabilities (2 crs.)

PE 531 Motor Performance Adaptations for Moderate and Severe Disabilities (2 crs.)

PE 532 Applied Kinesiology in Sport and Dance (2 crs.)

PE 533 Applications of Exercise Physiology (2 crs.)

PE 537 Applied Research Project (1 cr.)

Students in this program will make an oral presentation of the ED/PE 537 Applied Research Project which will constitute the comprehensive examination.

School of Education & Allied Studies

Master of Arts in Teaching Clinical Master's Program Health Education

Certification Program (Standard Level)

This master's degree program is designed for persons who have provisional certification with advanced standing and are seeking standard certification in the area of health education (Pre-K-9 or 5-12).

For information regarding application procedures and admission standards, students should consult the *Graduate School* section of this catalog.

Students seeking standard certification should consult the section of this catalog entitled *School of Education and Allied Studies* for information pertaining to professional certification, admission to and retention in Professional Education, as well as important institutional deadlines.

GP 501 Graduate Program Planning

All accepted students must enroll under the direction of their adviser in GP 501 Graduate Program Planning, which is described under "Graduate Adviser and Program Planning" in the Graduate School section of this catalog. As part of their program, students must satisfactorily complete the following curriculum:

Education Core

- ED 530 Research Methods
- ED 531 The Curriculum Experience
- ED 532 Critical Issues - Educators and Society
- ED 533 Effective Practices in Human Development and Learning
- ED 534 Clinical Experience (6 crs.)
- ED 537 Applied Research Project (2 crs.)

(Course descriptions for ED 530-537 are provided in the *School of Education and Allied Studies* section of this catalog.)

Discipline Area Requirements

In addition, those pursuing a certification in Pre-K-9 will complete the following:

- EE 566 Technological Applications for Education
- HE 535 Comprehensive Elementary School Health Program (1.5 crs.)
- SE 535 Exceptional Learner in the Classroom (1.5 crs.)
- HE 515 Organization and Administration of School Health Programs
- HE 537 Applied Research Project (1 cr.)

Choice of two:

- HE 508 Health Crisis Intervention
- HE 510 Advanced Nutrition Concepts
- HE 513 International Health
- HE 516 Family Life and Sex Education
- HE 594 Educational Approaches to Changing Drug Use Behavior

Those pursuing a certificate in grades 5-12 will complete the following:

- HE 515 Organization and Administration of School Health Programs
- HE 519 Scientific and Philosophical Foundations of Health Promotion
- HE 537 Applied Research Project (1 cr.)

Choice of two:

- HE 508 Health Crises Intervention
- HE 510 Advanced Nutrition Concepts
- HE 513 International Health
- HE 516 Family Life and Sex Education
- HE 594 Educational Approaches to Changing Drug Use Behavior

Students in this program will make an oral presentation of the ED/HE 537 Applied Research Project which will constitute the comprehensive exam.

Master of Education in Health Promotion

This program is designed for individuals who are currently involved in health promotion activities or who seek to prepare for health-related careers in community-based organizations such as business, industry, agencies, hospitals, and voluntary and official health agencies, as well as for in-service teachers.

Applicants who do not possess an adequate background in health and/or related areas will be required to make up course deficiencies. Such background course work will not be applied to the graduate program's minimum credit requirements.

The graduate program of study includes:

- I. GP 501 Graduate Program Planning (required of all graduate students, see Graduate Advisers and Program Planning in the *Graduate School* section of this catalog) — 1 graduate credit
- II. All master's degree candidates in Health Promotion will be required to successfully complete the following core:

Movement Arts, Health Promotion & Leisure Studies

- HE 504 Seminar in Health Promotion Theory and Literature (3 crs.)
- HE 511 Research & Evaluation Methods in Health Promotion (3 crs.)
- HE 518 Quantitative Methods in Health Promotion/Epidemiology (3 crs.)
- HE 519 Scientific & Philosophical Foundations of Health Promotion (3 crs.)
- HE 520 Designing & Administering Health Promotion Programs (3 crs.)

III. All master's degree candidates will be required to choose one of four alternative courses of study:

Option A

1. GP 501 Graduate Program Planning (1 cr.)
2. Successful completion of the core requirements (15 crs.)
3. Individualized program of electives by advisement (18 crs.)
4. Comprehensive Examination on core requirements

Option B

1. GP 501 Graduate Program Planning (1 cr.)
2. Successful completion of the core requirements (15 crs.)
3. Individualized program of electives by advisement (15 crs.)
4. Health Promotion Project (HE 501) (3 crs.)
5. Comprehensive Examination:
Oral Defense of Health Promotion Project

Option C

1. GP 501 Graduate Program Planning (1 cr.)
2. Successful completion of the core requirements (15 crs.)
3. Individualized program of electives by advisement (12 crs.)
4. Thesis in Health Promotion (HE 502) (6 crs.)
5. Comprehensive Examination:
Oral Defense of Thesis

Option D: Health Fitness Promotion Concentration

1. GP 501 Graduate Program Planning (1 cr.)
2. Successful completion of the core requirements (15 crs.)
3. Concentration Courses (18 crs.)

- PE 518 Advances in Exercise Metabolism
- PE 519 Advances in Exercise Prescription
- PE 544 Applied Laboratory Techniques in Exercise Science

Total of 9 semester hours selected from:

- HE 430 Principles and Practice of Epidemiology
- HE 471 Nutrition
- HE 483 Nutrition and Cardiovascular Health
- HE 501 Health Promotion Project
- HE 502 Research
- HE 510 Advanced Nutrition Concepts

- PE 400 Physiology and Techniques of Strength Fitness
- PE 402 Exercise Metabolism
- PE 404 Exercise Prescription and Cardiac Rehabilitation
- PE 405 Exercise Circulation: Mechanisms and Morphology
- PE 504 Nutrition for Sports, Exercise and Weight Control
- PE 515 Advances in Exercise Circulation
- PE 516 Exercise Electrocardiography
- PE 546 Biomechanics of Sport

4. Comprehensive Examination

- a. Examination on core requirements
or
- b. Oral defense of HE 501
or
- c. Oral defense of HE 502

IV. Students who apply for admission to the M.Ed. Program in Health Promotion should have completed at least twelve hours of credit at the baccalaureate level in the social/behavioral sciences, at least one course in epidemiology or health services organization, and six hours of credit at the baccalaureate level in health related courses. Students may petition the department graduate committee to substitute job related experiences for any of the aforementioned academic requirements.

Graduate credit is given for HE courses numbered 400 and 500, except the following:

- HE 491 Field Based Pre-Practicum—Health Education
- HE 492 Practicum in Student Teaching—Health
- HE 498 Field Experience in Health
- HE 499 Directed Study in Health

Master of Science in Physical Education

This program is designed for individuals with an undergraduate major in Physical Education, or its equivalent, who wish to pursue new career directions related to the field in community-based organizations, such as business, industry, agencies, hospitals, and educational settings, or who wish to enhance their undergraduate preparation through advanced study. Several program concentrations are available and are described below.

Applicants who do not possess an adequate background in physical education and/or related areas will be required to make up course deficiencies. Such background coursework will not be applied to the graduate program's minimum credit requirements.

School of Education & Allied Studies

The graduate program of study, involving a minimum of 31 graduate credits, includes:

1. GP 501 Graduate Program Planning (required of all students, see Graduate Advisers and Program Planning in the *Graduate School* section of this catalog) — 1 graduate credit.
2. PE 511 Research Methods in Physical Education — 3 graduate credits.
3. Program electives: Students must elect one of the following options:

A. Individualized Program of Study:

Development of a program of study, in consultation with the program adviser, to meet individual career and educational goals.

B. Concentration in Adapted Physical Education:

- PE 451 Prosthetics and Orthotics 3 credits
- PE 484 Physical Education for Children and Youth with Disabilities.....3 credits
- PE 494 Advanced Study of Motor Programs for Individuals with Chronic Health Problems.....3 credits
- PE 508 Motor Learning.....3 credits
- PE 595 Internship in Physical Education.....3-6 credits
- Courses in psychology and/or special education appropriate to individual program.....9 credits
- Electives appropriate to program.....0-3 credits

C. Concentration in Human Performance and Health Fitness

- PE 405 Exercise Circulation: Mechanics and Morphology.....3 credits
- PE 517 Experimental Processes in Physical Education.....3 credits
- PE 518 Advances in Exercise Metabolism.....3 credits
- PE 519 Advances in Exercise Prescription.....3 credits
- PE 544 Applied Laboratory Techniques in Exercise Science.....3 credits
- PE 595 Internship in Physical Education ... 3-6 credits

Suggested Electives:

Specific course selection will be made by the adviser and student based upon the student's professional background and program objectives. The following courses would be appropriate:

- *PE 400 Physiology and Techniques of Strength Fitness 3 credits

- PE 402 Exercise Metabolism 3 credits
- *PE 403 Cardiovascular Function, Analysis and Evaluation 3 credits
- PE 404 Exercise Prescription and Cardiac Rehabilitation 3 credits
- PE 502 Research variable credits
- PE 503 Directed Study 3 credits
- PE 504 Nutrition for Sports, Exercise and Weight Control 3 credits
- PE 515 Advances in Exercise Circulation 3 credits
- PE 516 Exercise Electrocardiography 3 credits
- PE 520 Health Fitness Program Planning and Management 3 credits
- HE 471 Nutrition..... 3 credits
- HE 483 Nutrition and Cardiovascular Health 3 credits
- HE 518 Quantitative Methods in Health Promotion and Epidemiology 3 credits

**Recommended based on student's program. Both may be taken.*

Graduate credit can be given for courses numbered 400 and 500 except the following:

- PE 412 Planning, Implementation, and Evaluation in Teaching Physical Education
- PE 414 Coaching
- PE 415 through PE 431
- PE 491 Field Based Pre-Practicum (5-12) — Physical Education
- PE 492 Practicum in Student Teaching (5-12) —Physical Education
- PE 498 Field Experience in Physical Education
- RC 498 Field Experience in Recreation
- PE 499 Directed Study in Physical Education

Movement Arts, Health Promotion & Leisure Studies

Course Offerings*

Health

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 community health. *Either semester*

HE 135-136 Freshman Honors Colloquium (1 cr. each semester)

Freshman Honors Colloquia in Health allow exceptionally able students to explore a challenging topic in small classes under close faculty supervision. Colloquia meet once a week for fifty minutes and culminate in a paper or scientific project which provides the major part of the grade. Open to All-College Honors students and to others at the discretion of the instructor. The minimum enrollment is two and the maximum is twelve. Topics vary from semester to semester. *(Prerequisite: consent of the instructor) HE 135 fall semester, HE 136 spring semester*

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. *(Prerequisite: HE 102) Offered fall semester*

HE 286-287 Sophomore Honors Colloquium (1 cr. each semester)

Sophomore Honors Colloquia in Health allow exceptionally able students to explore a challenging topic in small classes under close faculty supervision. Colloquia meet once a week for fifty minutes and culminate in a paper or scientific project which provides the major part of the grade. Open to All-College Honors students and to others at the discretion of the instructor. The minimum enrollment is two and the maximum is twelve. Topics vary from semester to semester. *(Prerequisite: consent of the instructor) HE 286 fall semester, HE 287 spring semester*

HE 300 Current Issues in Health (3 crs.)

Designed to acquaint the students with current health issues and trends related to the school and community. *(Prerequisite: HE 102) Offered spring semester*

HE 302 American Red Cross Standard First Aid (1 cr.)

The purpose of the American Red Cross Standard First Aid course is to train students to help people in emergencies. This course teaches the standard first aid skills a person needs to act as the first link in the emergency medical service system. *Either semester*

HE 401 Human Sexuality (3 crs.)

This course deals with issues of sexual response, including dysfunction and reproduction. Also included are discussions of sexual styles and expressions as they impact upon the biosocial and political climate of the times. Topics of in-depth analysis may focus upon IVF issues, fertility control and sexually transmitted diseases.

HE/SW 403 Interdisciplinary Approaches to the Delivery of Health Services (3 crs.)

A wide range of interdisciplinary health team approaches will be analyzed. The field component is observational and will provide insight into the pragmatic realities of a health team. This course will be a first exposure to the theoretical and experiential dynamics of interdisciplinary approaches to delivery of health services. Disciplines involved include social work, health, psychology, nursing and medicine. **For graduate credit only.** *(Prerequisite: 6 credits in Health and Social Work or Health-related areas) Offered alternate years in Spring*

HE 405 Drugs in Society (3 crs.)

Study of the impact of the environmental and cultural values affecting the drug using population. Views on subculture and alternative life styles and the forces that shape them. Understanding trends of modern treatment facilities and rehabilitation procedures. Emphasis on alternatives to drug use. *Either semester*

HE 430 Principles and Practice of Epidemiology (3 crs.)

This course is designed to acquaint students with the principles, methods, and approaches to the study of patterns of disease and the health conditions which might influence disease in human populations. It also includes factors that influence occurrence and the applications of epidemiological methods for prevention and control. *(Prerequisite: junior standing or consent of the instructor) Offered fall semester*

HE 450 Health Promotion Strategies (3 crs.)

Current strategies and techniques for transmitting information will be analyzed. Students will develop and evaluate strategies and techniques for promoting health information and wellness behaviors in a variety of settings. *Offered spring semester*

HE 455 Promoting Health in the Workplace (3 crs.)

This course will prepare students to develop, plan, implement and evaluate health education programs and policies in the work setting. In addition to learning "how to techniques", students will be exposed to theory related to adult learning, motivation, learning/teaching process as well as the factors that facilitate and/or impede becoming healthy in the workplace. *(Prerequisite: HE 450) Offered alternate years*

HE 471 Nutrition (3 crs.)

Nutrition and its relation to cultural patterns, dental health, total health and fitness, weight control and purchasing and preparation of food. *Either semester*

HE 474 Community Health (3 crs.)

The history and development of public health programs, the relationships of health departments—local, state and federal—public and private agencies, and the school health program. Problems and principles of the community health programs based on local needs. Designed for classroom teachers, health specialists and others interested in community health. *Offered fall semester*

HE 477 Environmental Health (3 crs.)

Study of selected environmental influences, and how they affect health. Proposal and action-oriented suggestions for bringing about change. Understanding pressure tactics, political influences, resistive forces and

*See page 73 for general information regarding course offerings

School of Education & Allied Studies

strategies for dealing with them. Exploration of legal structure, geographical difficulties, priority establishment and safety tolerances.

Offered alternate years

HE 478 Consumer Health (3 crs.)

Course designed to help people make informed decisions regarding their best use of health products and services. Topics to be covered include health insurance, life insurance, credit buying, quacks, patent medicines, fad diets, food buying, criteria for selecting health service, identifying subtleties in advertising and understanding the misconceptions concerning health. *Offered spring semester*

HE 482 Health Education in the Elementary Schools (3 crs.)

Study of the identification and appraisal of physical, emotional, and social health problems of elementary school children. Focus on teachers' approaches toward health education and the creation of an emotionally, socially and intellectually healthy classroom environment.

Offered fall semester

HE 483 Nutrition and Cardiovascular Health (3 crs.)

This course will deal with the selection of nutritional foods throughout the life cycle with specific emphasis on how cardiovascular health may be maintained and/or improved by proper nutritional practices. (*Prerequisite: one course in nutrition or a scientifically-based course that includes topics of nutrition*) *Offered spring semester*

HE 484 Death and Dying Education (3 crs.)

A study of the health issues (physical, emotional and social) related to terminal illness and death. *Offered fall semester*

HE 485 Medical and Scientific Aspects of Human Sexuality (3 crs.)

The purpose of this course is to update the advanced sexuality student on medical research as it relates to human sexuality. Course content may consider such issues as fertility medications, sexual dysfunction, as well as research on variations in sexual styles. (*Prerequisite: HE 401 or consent of the instructor*) *Offered alternate years*

HE 491 Field Based Pre-Practicum—Health Education (5-12) (2 crs.)

This course is designed to provide the student with an introduction to teaching health education in an off-campus setting. *Either semester*

HE 492 Practicum in Student Teaching—Health (12 crs.)

Full-time teaching for one semester with supervision provided by members of the department. (*Prerequisite: acceptance and good standing in Teacher Preparation Program and satisfactorily completed Department Teacher Preparation Program courses*) *Either semester*

HE 495 Field Based Pre-Practicum—Health Education (Pre-K-9) (2 crs.)

This course is designed to provide the student with an introduction to teaching health education in an off-campus setting. *Either semester*

HE 496 Practicum in Student Teaching—Health (Pre-K-9) (12 crs.)

Full-time teaching for one semester with supervision provided by members of the department. (*Prerequisite: acceptance and good standing in Teacher Preparation Program and satisfactorily completed Department Teacher Preparation Program courses*) *Either semester*

HE 498 Field Experience in Health (3-15 crs.)

A field experience offers qualified students the opportunity to gain practical off-campus experience in health. Placements are made in both public and private agencies and are designed to complement a student's concentration or minor in health. (*Prerequisite: consent of the department; formal application required*) *Either semester*

HE 499 Directed Study in Health (1-3 crs.)

Open to juniors and seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits. (*Prerequisite: consent of the department; formal application required*) *Either semester*

Other Approved Courses:

HE 481 Selected Health Issues

HE 501 Health Promotion Project (3 crs.)

Individual health promotion project is planned, implemented and evaluated under the direct supervision of a faculty mentor.

HE 502 Research (credit to be arranged)

Original research undertaken by the graduate student in his field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

HE 503 Directed Study (credit to be arranged)

Designed for the graduate student who desires to study selected topics in a specific field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

HE 504 Seminar in Health Promotion Theory and Literature (3 crs.)

This course is designed to orient the graduate student to the process of a formal literature review and the subsequent theory that ensues. The student will be required to complete a comprehensive literature review and deliver a formal seminar report.

HE 508 Health Crisis Intervention (3 crs.)

Dealing with mental, emotional and social health problems of the individual, the family and society. Exploration of suicide education, death education and psychosomatic illness. Investigation and practice of techniques of aiding the potential suicide; the tripping drug user; the chronic alcoholic; the obese, neurotic, and promiscuous; geriatric problems; and health care availability. Course will consider agency roles in these areas. (*Prerequisite: six credits in health*) *Offered alternate years*

HE 509 Occupational Health and Safety (3 crs.)

Study of the potential health and safety hazards in different occupational environments and intervention measures to reduce or eliminate exposures.

HE 510 Advanced Nutrition Concepts (3 crs.)

An advanced course in nutrition with emphasis on current nutritional concepts and a critical analysis of major nutritional issues. (*Prerequisite: HE 471 or a nutrition course*)

HE 511 Research and Evaluation Methods in Health Promotion (3 crs.)

This course will develop competencies needed to both produce and

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consume research in health promotion and allied areas. Via the development of a research proposal, students will gain an understanding of such research techniques as problem formulation, literature review, sampling, hypothesis construction, research design, instrumentation, and data analysis. *Offered fall semester*

HE 513 International Health (3 crs.)

An overview of health status, health programs and trends in health care delivery systems in various countries in the world. Consideration of socio-cultural influences on health and disease of various ethnic groups in the United States will be explored. Major emphasis is placed on culture and environment as they relate to health practices of various subcultures in the U.S. and developing nations. The course is particularly beneficial for those interested in working in international health settings.

HE 514 Selected Topics in Environmental Health (3 crs.)

An in-depth study of important environmental health issues. The topics discussed will provide the information needed to make intelligent decisions regarding critical environmental health problems.

HE 515 Organization and Administration of Comprehensive School Health Programs (3 crs.)

The four major areas of comprehensive school health organization (foundations, environment, services, and instruction) will be examined. The interrelationship between school health and public health programs will be discussed while emphasizing the planning, implementation, and evaluation of the comprehensive school health program.

HE 516 Family Life and Sex Education (3 crs.)

Curriculum development and implementation strategies for comprehensive school-community based sexuality education. The course deals with a variety of sexuality issues including STDs, fertility and contemporary social issues of sexism and aggression. *(Prerequisite: at least one course in human sexuality and consent of the instructor)* *Offered alternate years*

HE 518 Quantitative Methods in Health Promotion/Epidemiology (3 crs.)

This is an introductory course in quantitative methods in epidemiology and health promotion. The course includes inferential and descriptive techniques as well as life table construction, and epidemiological rates, ratios and proportions.

HE 519 Scientific and Philosophical Foundations of Health Promotion (3 crs.)

The focus of this course is on surveying and providing the historical/philosophical foundations of health promotion and provide a scientific basis for the development of health promotion programs.

HE 520 Designing and Administering Health Promotion Programs (3 crs.)

Analysis and skill development in administration of health promotion programs in a variety of settings with emphasis on administrative issues, staff development and consultation.

HE 535 Comprehensive Elementary School Health Program (1.5 cr.)

Aspects of the comprehensive school health program related to the

role of the K-6 classroom teacher will be examined. *Offered Spring Semester*

HE 537 Applied Research Project (1 cr.)

In this course, students complete an applied research project which integrates theory and practice utilizing education research format and disciplinary knowledge.

HE 581 Special topics in Health Education (1-3 crs.)

Special Topics in health education are presented with special emphasis on application in the field. Topics are given in modules of 1-3 credits each.

HE 594 Educational Approaches to Changing Drug Use Behavior (3 crs.)

The focus of this course is drug abuse problems in youthful populations. The importance of teachers developing their own self-awareness and using early intervention strategies is emphasized. Teachers at the elementary and secondary levels will experience a variety of methodologies intended to equip them with strategies for changing student behaviors in respect to present or intended drug use. All course participants will develop skills in assessing student needs, planning and implementing drug education programs, and evaluating their effectiveness in changing attitudes, beliefs, values and behaviors related to drug use. *(Prerequisite: At least one course pertaining to drugs and consent of the instructor)* *Offered alternate years*

HE 595 Internship in Health Promotion (1-6 crs.)

An internship offers qualified students the opportunity to gain practical experience within their major area of interest. Placements are designed to complement a student's program focus. *(Prerequisite: 15 graduate credits must be completed or consent of instructor)*

School of Education & Allied Studies

Physical Education

PE 100 Applied Musculoskeletal Anatomy (3 crs.)

Includes a fundamental study of the human body and its parts, with special emphasis on bones, muscle joints, and tissues involved in basic movement patterns. *Either semester*

PE 117 Historical and Philosophical Foundations of Sport and Physical Education (3 crs.)

An historical and philosophical study of sport and physical education, including an overview of the biological and normative/humanities areas constituting the discipline of sport studies. *Either semester*

PE 135-136 Freshman Honors Colloquium (1 cr. each semester)

Freshman Honors Colloquia in Physical Education allow exceptionally able students to explore a challenging topic in small classes under close faculty supervision. Colloquia meet once a week for fifty minutes and culminate in a paper or scientific project which provides the major part of the grade. Open to All-College Honors students and to others at the discretion of the instructor. The minimum enrollment is two and the maximum is twelve. Topics vary from semester to semester. (*Prerequisite: Consent of the instructor*) PE 135 fall semester, PE 136 spring semester

***PE/CT 146 Dance Appreciation (3 crs.)**

This course explores the basic components of dance and enables students to appreciate the art of dance as an informed audience and as participants in its rich variety. Satisfies the GER in Artistic Modes of Expression.

‡PE/CT 155 Dance Practicum (1 cr.)

In this class students will choreograph and rehearse dances for a concert performance. Concurrent enrollment in a dance class is strongly advised. *Fall semester is open to all; spring semester is open by audition only.*

***PE/CT 156 Movement and Dance for Actors (3 crs.)**

Exercises in developing and communicating a character through movement. Introduction to theatre movement, including dance, styles and conditioning.

PE 180 Coaching Basics (1 cr.)

This course provides an introduction to the skills and knowledge essential to coaching at any level. The student may also elect to be certified as a "Level 1" coach by the American Coaching Effectiveness Program.

PE 201 Apprenticeship in Exercise Science and Health Fitness (1 cr.)

The course is an introductory field-work experience in the design and conduct of preventive and rehabilitative exercise programs. In addition to the class work, the student will observe and assist in the operation and supervision of an established program. *Either semester*

**Offered for credit in both the Movement Arts, Health Promotion, and Leisure Studies and the Communication Studies and Theatre Arts Departments.*

‡ Note: From the one-credit co-curricular activity, PE/CT 155, and from any and all co-curricular activities for which the college grants credit, a student may accumulate not more than one credit per semester (two per year) nor more than six per four-year degree program.

EXCEPTION: All one credit co-curricular and Physical Education activity courses that are required for officially enrolled and graduating students in an approved major, concentration or minor may be counted towards graduation.

PE 205 Introduction to Teaching Physical Education in the Public Schools (2 cr.)

This course is designed to give students information about teaching physical education as a profession. Through discussion and direct observation of the teaching-learning environment, students will be able to study and observe the characteristics of learners of different age and grade levels as well as the philosophy, goals and objectives of programs for various certification levels. *Fall semester*

PE 217 Principles of Motor Learning (3 crs.)

Introduces the student to the concepts and principles concerned with learning and performance of movement skills. (*Prerequisite: PE100*) *Either semester*

PE 220 Biomechanics (3 crs.)

Introduces the student to the concepts and principles of biomechanics as they relate to sport and recreational skills. (*Prerequisites: PE100 and Math GER*) *Either semester*

PE 225 Observation and Analysis of Movement for Children (4 cr.)

An introduction to the movement approach to games, dance, and gymnastics with emphasis on program content and progression using the thematic approach. (*Prerequisite: PE 205*) *Spring semester*

PE 240 Introduction into Athletic Training (3 crs.)

Introduces the physical education major into the field of athletic training including the role of the coach and athletic trainer in providing sports injury management, taping and use of immobilization devices, basic injury evaluation, and rehabilitation principles. Two hour lecture and two hours laboratory. (*Prerequisite: PE 100*) *Offered every semester.*

PE 241 Apprenticeship in Athletic Training (3 crs.)

Introduces the athletic training student into the clinical aspect of the athletic training profession. Clinical hours working with the intercollegiate teams will be supplemented by bi-monthly seminars on issues and skills associated with the professional development of the athletic trainer. (*Prerequisite: consent of the coordinator of the Athletic Training Concentration*)

***PE/CT 251 Dance History (3 crs.)**

This course will offer an examination of dance as a social and artistic force from primitive to modern times. Class will include lecture and film, as well as performance of dances in historical styles. Satisfies the GER in Artistic Modes of Expression

PE 252 Water Safety Instructor (3 crs.)

Instruction in pedagogy and methodology for teaching Red Cross progressive swimming classes and Community Water Safety. Successful completion of course requirements will earn Red Cross Certification in Instructor Candidate Training and Water Safety Instructor. (*Prerequisites: Red Cross Level VI of the Learn to Swim program or comparable skill level of proficiency as determined by a pre-course swimming and written screening test.*)

***PE/CT 255 Creative Dance I (3 crs.)**

This course will investigate the theory of dance through participation, composition, lecture, discussion and film. Students will learn about the elements of space, time, force, movement and style. Satisfies the GER in Artistic Modes of Expression. *Fall semester*

*Movement Arts, Health Promotion & Leisure Studies****PE/CT 256 Creative Dance II (3 crs.)**

The use of basic elements of dance to form a set movement composition. Exercises in choreography and experiences in setting a dance for performance. (Prerequisite: CT/PE 255) Spring semester

***PE/CT 259 Dance Repertory (1 cr.)**

Students will be taught a major choreographic work by faculty and/or guest artists. Spring semester

PE 286-287 Sophomore Honors Colloquium (1 cr. each semester)

Sophomore Honors Colloquia in Physical Education allow exceptionally able students to explore a challenging topic in small classes under close faculty supervision. Colloquia meet once a week for fifty minutes and culminate in a paper or scientific project which provides the major part of the grade. Open to All-College Honors students and to others at the discretion of the instructor. The minimum enrollment is two and the maximum is twelve. Topics vary from semester to semester. (Prerequisite: consent of the instructor) PE 286 fall semester, PE 287 spring semester

PE 312 Strategies and Analysis in Teaching Physical Activities (3 crs.)

Designed to prepare the student with an understanding of the learning and development of skill performance. Major emphasis will be placed on basic motor skills including learning progression, skill analysis, error correction, organizational patterns, teaching strategies and performance evaluation. (Prerequisite: PE 205, PE 217) Spring semester

PE 315 Teaching Team and Individual Sports (4 crs.)

Methodologies, teaching strategies, materials and media for introducing, developing and evaluating skills and knowledge of selected team and individual sports. (Prerequisite: PE 312) Fall semester

PE 318 Socio-Cultural Foundations of Sport (3 crs.)

This course provides an introduction to the study of sport as a social institution and an element of culture. Major topics include the roles of sport in society, the relationship of sport to other social institutions and variations in sport across cultures. Either semester

PE 324 Physical and Motor Development of Individuals with Disabilities (3 crs.)

This course addresses the etiology, treatment, developmental sequence and functional abilities of disabled and handicapped populations. The course also emphasizes concepts of physical fitness, motor and physical skill development, concepts related to competitive and cooperative social interaction as well as the constructive use of leisure. Topics presented will include the visually impaired, blind, mentally retarded, cerebral palsy, spina bifida, muscular dystrophy, and postural disorders. The diagnostic prescriptive process will be stressed along with the latest screening and assessment instruments and techniques. (Prerequisite: PE 217) Either semester

PE 325 Methods and Techniques in Coaching Individual Sports (1 cr.)

A brief theoretical study of individual sports, offensive and defensive fundamentals and strategies, and responsibilities regarding administration of practice and performance.

PE 326 Teaching Physical Education to Children (3 crs.)

A study of the movement approach to teaching physical education to children with emphasis on developing content and methodology. Student will engage in pre-practicum experience with children in an on-campus setting focusing on: developing, analyzing, and improving teaching behavior and developing teaching materials. (Prerequisite: PE 205, PE 225) Fall semester

PE 327 Methods and Techniques in Coaching Team Sports (1 cr.)

A brief theoretical study of team sports, offensive and defensive fundamentals and strategies, and responsibilities regarding administration of practice and performance.

PE 329 Teaching and Curriculum Development in the Middle and Junior High School (3 crs.)

This course will focus on teaching and curriculum development for physical education in the middle and junior high school. Emphasis will be placed on important trends in our society and an understanding of what physical education can and should mean to the education of transescentals. Teaching concepts as well as equity issues, comprehensive curriculum planning and evaluation will be studied. (Prerequisites: PE 225 or PE 217, PE 220) Fall semester

PE 340 Sports Injury Management—Lower Extremity (3 crs.)

Application of joint and musculoskeletal anatomy in the prevention, recognition, and management of athletic injuries to the lower extremity. Two hours lecture and two hours laboratory. (Prerequisite: PE 241 or consent of the Instructor) Fall semester only.

PE 341 Sports Injury Management—Upper Extremity (3 crs.)

Application of joint and musculoskeletal anatomy in the prevention, recognition and management of athletic injuries to the upper extremity, head and neck. Two hour lecture and two hours laboratory. (Prerequisite: PE 240) Spring semester only.

PE 342 Clinical Application of Basic Athletic Training Skills (3 crs.)

Clinical application of the skills and techniques used in the athletic training profession. The clinical experience will be enhanced with regular seminars on issues and topics pertinent to the professional. (Prerequisite: PE 241)

PE 343 Clinical Application of Intermediate Athletic Training Skills (3 crs.)

Clinical application of the skills and techniques used in the athletic training profession. The clinical experience will be enhanced with regular seminars on issues and topics pertinent to the professional. (Prerequisite: PE 342)

PE 345 Sport and Physical Education in East Asian Cultures (3 crs.)

This course investigates and contrasts the role of sport and physical education in various East Asian cultures. History, attitudes and practices, cultural influences and current trends form the basis for study

*Offered for credit in both the Movement Arts, Health Promotion, and Leisure Studies and the Communication Studies and Theatre Arts Departments.

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and discussion. The relationship to Western practices will be discussed. Satisfies the GER in Non-Western Civilization

PE 346 Sport and Culture in India (3 crs.)

This course studies the culture of India and the role of sport within this culture. History, attitudes and practices, cultural influences and current trends form the basis for study and discussion. Relationships to western culture and practices will be discussed. Satisfies the GER in Non-Western Civilization.

***PE/CT 357 Dance Production Theory (2 crs.)**

This course provides the opportunity to choreograph and plan the presentation of a major dance work. Lectures and practical assignments in choreography and stagecraft for dance will result in a plan for a dance piece. (*Prerequisite: PE/CT 255 and PE/CT 256, or consent of the instructor*) Fall semester

***PE/CT 358 Dance Production Techniques (1 cr.)**

This course is an extension of PE/CT 357 Dance Production Theory, and provides an opportunity for students to set a choreographed work for dancers and to rehearse it for presentation. *Spring semester*

PE 361 Officiating Individual Sports (1 cr.)

A study of the rules, techniques and mechanics in sports officiating. (Tennis, track and field, wrestling)

PE 362 Officiating Team Sports (1 cr.)

A study of the rules, techniques and mechanic in sports officiating. (Football, basketball, softball/baseball, field hockey, lacrosse, volleyball, soccer)

PE/WS 365 Women in Sports (3 crs.)

This course investigates the sport-women relationship from a physiological, historical and socio-cultural perspective. In doing so, it examines images, attitudes and structures that affect the involvement of women in sport and exercise and restrict/enhance their personal and professional potential. (*Prerequisite: Three GER credits in behavioral science*)

PE 380 The Psychology of Sport and Physical Performance (3 crs.)

An overview of how psychological factors affect sport and physical performance. (*Prerequisites: PY 100, PE 217 or consent of instructor*)

PE 400 Physiology and Techniques of Strength Fitness (3 crs.)

To provide students with a knowledge of the effects of heavy resistance exercise training protocols on musculo-skeletal integrity, metabolic capacity and various specific tissue characteristics in the human body. Thus, the course necessarily considers micro-anatomical and physiological variations associated with general strength conditioning programs, body building, olympic lifting, power lifting, circuit training, variable resistance, isotonic, isokinetic and isometric resistance training. *Fall semester*

PE 401 Physiology of Exercise (3 crs.)

Includes the study of systems, their interrelationships and adjustments during exercise and as a result of training. Emphasis is on current re-

**Offered for credit in both the Movement Arts, Health Promotion, and Leisure Studies and the Communication Studies and Theatre Arts Departments.*

search findings and what remains to be discovered in man as a moving being. Two hours of lecture and one two-hour laboratory period weekly. (*Prerequisite: BI 100, BI 102 or equivalent*) *Either semester*

PE 402 Exercise Metabolism (3 crs.)

An in-depth study of human physiological principles as applied to exercise, sport activity and research. Special emphasis is on neurological control, exercise in relation to cardiovascular disease, and factors affecting performance. (*Prerequisite: PE 401 or equivalent*) *Offered alternate semesters*

PE 403 Cardiovascular Function, Analysis and Evaluation (3 crs.)

Includes cardiovascular dynamics as studied through anatomy, electrophysiology, and the pathology of the cardiovascular system. Specific emphasis will be placed on the analysis of the cardiovascular system through non-invasive methods of evaluation. (*Prerequisite: PE 401 or equivalent*) *Offered alternate semesters*

PE 404 Exercise Prescription and Cardiac Rehabilitation (3 crs.)

This course focuses on the development of individualized prescriptive exercise programming with regard to stress test evaluations and individual contraindications. Environmental conditions along with intensity, duration and frequency of physical activity will be studied in order to develop programs. Special attention will be given to high-risk populations and post-cardiac patients. (*Prerequisite: PE 401 or equivalent*) *Offered alternate semesters*

PE 405 Exercise Circulation: Mechanisms and Morphology (3 crs.)

This course provides students with a knowledge and understanding of the acute and chronic effects of exercise on the peripheral and central circulatory systems. It deals with exercise related cardiovascular dynamics, effects of frequently used medications and growth responses induced by regular exercise as well as abnormal physiological responses to exercise. (*Prerequisite: PE 401*)

PE 406 Personal Fitness Training (3 crs.)

The application of exercise science for safe, effective, and profitable personal training. Exercise, fitness and weight management analyzed from the perspectives of the subdisciplines and exercise science; individualized exercise prescription. Business and legal aspects. (*Prerequisites: PE 401*)

PE 409 Planning, Implementing and Evaluating Fitness Programs (3 crs.)

This course provides students with skills needed to develop, implement and evaluate programs in fitness and rehabilitative exercise centers. Emphasis will be placed on program development, on providing instruction to individuals and groups and on administrative tasks expected of the entry level fitness professional. *Fall semester*

PE 412 Planning, Implementation, and Evaluation in Teaching Physical Education (6 crs.)

Designed to develop teaching competencies related to the planning, implementation, and evaluation aspects of instructional programs in physical education. Course will include current research on effective teaching, peer teaching and video tape analysis of teacher and student behavior. (*Prerequisite: PE 205, PE 217 and PE 315 or PE 326*) *Spring semester*

*Movement Arts, Health Promotion & Leisure Studies***PE 414 Coaching (3 crs.)**

The application of teaching and learning principles as related to the player, team, coach and the 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. *Once a year*

PE 442 Therapeutic Exercise (3 crs.)

Comprehensive analysis of therapeutic exercise in a sports medicine environment. Topics discussed include the healing process and pathophysiology of a musculoskeletal injury, goals of rehabilitation, flexibility and strength training methods and protocol, aquatic therapy, pharmacological considerations, psychological considerations, and specific rehabilitation techniques for the various body segments. Course includes a two hour lecture and a two hour laboratory session. *(Prerequisite: must be accepted in curriculum program or by consent of program director)*

PE 450 Therapeutic Modalities (3 crs.)

This course will introduce the athletic training student to therapeutic modalities used in sports medicine. A one hour lecture and two hour laboratory will provide practical application of clinical skills including indications, contraindication, and record keeping associated with patient care. *(Prerequisite: PE 240)*

PE 451 Prosthetics and Orthotics (3 crs.)

This course presents principles and techniques of using ambulatory aids, prosthetics, orthotics and wheelchairs for mobility, motor development, leisure activity and sport. Emphasis will be on skill adaptations and program planning for individuals with neuromuscular disease, spinal cord injury and amputation. Course includes clinical observation and laboratory experiences.

PE 454 Clinical Application of Advanced Athletic Training Skills (3 crs.)

Clinical application of the skills and techniques used in the athletic training profession. The clinical experience will be enhanced with regular seminars on issues and topics pertinent to the professional. *(Prerequisite: PE 343)*

PE 455 Professional Preparation in Athletic Training (3 crs.)

Clinical application of the skills and techniques used in the athletic training profession. The clinical experience will be enhanced with regular seminars on issues and topics pertinent to the professional. *(Prerequisite: PE 454)*

PE 465 Theory and Development of Play (3 crs.)

Provides theoretical foundations for play based on classical and modern theories and on research findings.

PE 470 Sociology of Sport (3 crs.)

Analysis of the types of forces at work in American society and how they relate to sports. Among the topics to be included are the influences of our cultural heritage, philosophy of education, politics, religion, economy, ethnics, mass media, and internationalism. Lectures, readings, class discussions, and written assignments will be directed toward enhancing the individual's understanding of the values of sport in our society. *(Prerequisite: three credits in Sociology)*

PE 481 Organization and Administration of School Athletics (3 crs.)

Athletic policies and regulations on the local and state levels, administrative plans, contest management, the purchase and care of equipment, athletic awards, finance and budget, athletic facilities, scheduling, public relations, the intramural program, and trends in interscholastic athletics.

PE 484 Physical Education for Children and Youth with Disabilities (3 crs.)

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.

PE 485 Honors Thesis (3 cr.)

This course is open to All-College and Departmental Honors students. One-hour weekly meetings with the thesis director will culminate in an honors thesis. With the consent of the Departmental Honors Committee and the thesis director, this course may be extended into a second semester for three additional credits depending upon the scope of the project. Whether the final version of the thesis qualifies the student to graduate with honors will be determined by the Departmental Honors Committee. *Either semester*

PE 490 Administration of Athletic Training (3 crs.)

Study of various administrative topics confronting an athletic trainer in the management of a sports medicine facility including program management, human resource management, financial management, facility design and planning, informational management, insurance, and legal considerations in sports medicine. *(Prerequisite: PE 240 or equivalent) Offered alternate years*

PE 491 Field Based Pre-Practicum (5-12)—Physical Education (2 crs.)

Designed to provide the student with field based teaching experiences in selected settings. *(Prerequisite: PE 329, PE 412, PE 315 or PE 326 and acceptance and good standing in department and College Teacher Preparation Programs) One quarter either semester*

PE 492 Practicum in Student Teaching (5-12)—Physical Education (12 crs.)

Full-time teaching for one semester with supervision provided by members of the department faculty. *(Prerequisite: acceptance and good standing in Teacher Preparation Program and satisfactorily completed department Teacher Preparation Program courses) Either semester*

PE 494 Advanced Study of Motor Programs for Individuals with Chronic Health Conditions (3 crs.)

Included is the study of nutritional disturbances, emotionally disturbed, socially maladjusted, disadvantaged, and chronic medical problems. A culmination of professional experiences to include a study of perceptual motor programs, behavior modification, advanced techniques of motor assessment and grantsmanship. The role of the adapted physical educator as a resource and itinerant teacher will be presented. *(Prerequisite: Undergraduate: PE 217 and PE 324; Graduate: PE 484 and PE 508 or consent of the instructor) Offered Fall semester*

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PE 495 Field Based Pre-Practicum (Pre-K-9)—Physical Education (2 crs.)

Designed to provide the student with field based teaching experiences in selected settings. (*Prerequisite: PE 329, PE 412, PE 315 or PE 326 and acceptance and good standing in department and College Teacher Preparation Programs*) One quarter either semester

PE 496 Practicum in Student Teaching (Pre-K-9)—Physical Education (12 crs.)

Full-time teaching for one semester with supervision provided by members of the department faculty. (*Prerequisite: Acceptance and good standing in college Teacher Preparation Program and satisfactorily completed department Teacher Preparation Program courses*) Either semester

PE 497 Seminar in the Children's Physical Development Clinic (3 crs.)

The Children's Physical Developmental Clinic (CPDC) is an interdisciplinary community service program designed to enhance the physical, motor and social development of disabled children and adults 18 months through 21 years. This course affords veteran student clinicians the challenge of assisting with program development, administration and evaluation of the CPDC as well as the training and supervision of less experienced clinicians. The course is open to all majors and may be repeated once for credit with the consent of the instructor. (*Prerequisites: A minimum of one year experience in the Children's Physical Developmental Clinic and consent of the instructor*)

PE 498 Field Experience in Physical Education (3-15 crs.)

A field experience offers qualified students the opportunity to gain practical experience in their major. Placements are made in both public and private agencies and are designed to complement a student's concentration in their major. (*Prerequisite: consent of the department; formal application required*) Either semester

PE 499 Directed Study in Physical Education (1-3 crs.)

Open to all juniors and seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits. (*Prerequisite: consent of the department; formal application required*) Either semester

Other Approved Courses:

PE 200 Fitness for Life

PE/CT 321 Creative Dance for Children

PE 439 Analysis and Application of Teacher Behavior

PE 440 Scientific Basis of Coaching

PE 471 Psycho/Social Aspects of Sports

PE 487 Psychological Aspects of Coaching

PE 502 Research (credit to be arranged)

Original research undertaken by the graduate student in his or her field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

PE 503 Directed Study (credit to be arranged)

Designed for the graduate student who desires to study selected topics in a specific field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

PE 504 Nutrition for Sports, Exercise and Weight Control (3 crs.)

This course will provide a thorough review of nutritional principles and practices essential for exercise and optimal performance in sports. Also stressed are principles and strategies for maintaining, gaining or losing weight.

PE 505 Principles and Techniques of Supervising Student Teachers in Physical Education (3 crs.)

A course designed to provide physical education teachers with knowledge of supervision, the role of the cooperating teachers and their impact on student teachers, methods for observing and recording teaching behaviors and suggestions for helping student teachers implement instructional strategies. Theoretical and practical experience will be provided. (*Prerequisite: Public School Teaching*)

PE 506 Philosophy and Principles of Physical Education (3 crs.)

Philosophical inquiry into the discipline of physical education including a study of trends and forces in education as they affect the field. (*Prerequisite: six credits in Physical Education*)

PE 507 The Child and His Movement Behavior (3 crs.)

Current concepts and trends related to movement experiences of children with emphasis on developmental movement, and learning. (*Prerequisite: twelve credits in Physical Education or consent of the instructor*)

PE 508 Motor Learning (3 crs.)

Integration of biological and psychological concepts in the acquisition of motor skills including environmental conditions, developmental factors and learning theories. (*Prerequisite: three credits in Psychology*)

PE 509 Drugs in Sports (3 crs.)

This course is designed for coaches and others who are interested in the study of ergogenic aids and "recreational" drugs in sport. Information will be presented to correct widespread misconceptions about the use of ergogenic aids and other drugs to maximize athletic performance. Emphasis will be on the physiological, psychological and pharmacological effects of ergogenic aids and on developing skills to identify and help athletes who display addictive behaviors.

PE 510 Concepts of Curriculum Development (3 crs.)

Current educational trends, theories relative to physical education and the development of curricular models, with a focus on the needs of today's society. (*Prerequisite: nine credits in Physical Education or consent of the instructor*)

PE 511 Research Methods in Physical Education (3 crs.)

This course will develop competencies needed to both produce and consume research in Physical Education and allied areas. In the development of a research proposal, students will gain an understanding of such research techniques as problem formulation, literature review, sampling, hypothesis construction, research design, instrumentation, and data analysis.

PE 512 Administration of Physical Education (3 crs.)

Application of administrative principles to the physical education program. (*Prerequisite: 12 credits in Physical Education or consent of the instructor*)

Movement Arts, Health Promotion & Leisure Studies

PE 513 Educational Games for Elementary and Middle School Level (3 crs.)

A comprehensive study of the movement approach to educational games with emphasis on analysis of games. Progression utilizing thematic approach and curriculum development will also be presented.

PE 514 Improving Teaching Effectiveness in Physical Education (3 crs.)

The course will focus on research pertaining to teacher and school effectiveness and implications for teaching physical education. Formats through which teachers can gather data for use in self analysis and improvement of instruction will be examined. Equity issues and the need of a multicultural society will also be discussed. (Prerequisite: PE 412 or equivalent)

PE 515 Advances in Exercise Circulation (3 crs.)

This course provides students with a knowledge and understanding of current theories explaining the responses of the circulation to acute and chronic exercise. It considers translocations of fluids and fluid constituents within the vascular systems and among various body compartments. It also considers potential growth responses and abnormal responses. (Prerequisite: PE 401)

PE 516 Exercise Electrocardiography (3 crs.)

This course focuses on the basic electrophysiology of the heart and the intricate electrical responses of the hearts of healthy and unhealthy individuals to exercise. Its primary emphases are thus exact descriptions of ECG variations, mechanisms underlying these variations and factors influencing cardiac electrophysiology.

PE 517 Experimental Processes in Physical Education (3 crs.)

This course will develop quantitative competencies required to conduct and understand experimental research typically occurring in physical education. It thus concerns basic measurement theory, probability, description and inference.

PE 518 Advances in Exercise Metabolism (3 crs.)

Students will study advanced topics concerned with bioenergetics during exercise. It will focus on acute and chronic responses to exercise from various perspectives. Among topics covered will be: cardiovascular/ventilatory coupling, chemomechanical coupling, anaerobic threshold, substrate utilization, electrolyte imbalance, oxygen use and hormonal controls of metabolisms. (Prerequisite: PE 401 or consent of the instructor)

PE 519 Advances in Exercise Prescription (3 crs.)

This course is concerned with special circumstances which dictate that one must adjust either the exercise testing or prescription for an individual. It is thus focused on descriptions of special situations, testing and prescription for those situations. Other special cases considered will be: gender, children, aging, environment, arthritis, diabetes, obesity, heart disease, low fitness, high fitness, respiratory disorders and hypertension. (Prerequisite: PE 401 or consent of the instructor)

PE 520 Health Fitness Program Planning and Management (3 crs.)

Designed to address strategies essential to the development of successful exercise and health fitness programs. Emphasis will be placed on program development, motivational techniques and administra-

tive considerations. (Prerequisite: At least one course in exercise physiology or consent of the instructor)

PE 526 Sport Law (3 crs.)

This course will give the sports professional an understanding of the legal system as a whole and the unique legal problems and responsibility faced in managing a sports activity. The sports professional will be educated to identify potential legal liability, to avoid unnecessary legal risks and to minimize legal loss exposure.

PE 527 Effective Coaching of Sports Skills (3 crs.)

This course is designed to improve the coach in his or her role as a teacher of sports skills. It emphasizes the theoretical and practical aspects of planning, delivering and evaluating a season of skill instruction.

PE 528 Classroom Management for Student Achievement in Physical Education (2 crs.)

Proactive approaches for creating effective learning in movement environments in a multicultural society will be discussed. Topics will include the pygmalion effect, the components of a systematic approach to classroom management, planning classroom rules and procedures, and techniques for implementing and maintaining a management system. Various management models, techniques and strategies practiced by distinctive teachers will be highlighted along with behavior management and social competency skills appropriate for a movement oriented learning environment. (Prerequisites: PE 412 or equivalent)

PE 529 Movement Skill Development (2 crs.)

This course addresses motor development as a continuous developmental process. Emphasis will be placed on competencies that include the ability to formulate a developmental perspective; knowledge of changing motor behaviors; assessment; knowledge of factors affecting motor development, including physical growth and physiological change, and interventions; and the ability to apply motor development knowledge.

PE 530 The Motor Domain: Implications for Chronic Disabilities (2 crs.)

An in-depth study of etiologies, classifications and functional motor abilities of chronic medical conditions will be presented. Topics will include asthma, cystic fibrosis, epilepsy, cancer, obesity, diabetes, arthritis, multiple sclerosis and muscular dystrophy. The course will also emphasize unique physiological, psychological and biochemical characteristics pertaining to motor development, sport and leisure. (Prerequisites: PE 324 or equivalent)

PE 531 Motor Performance Adaptations for Moderate and Severe Disabilities (2 crs.)

This course addresses the etiologies, prevalence, characteristics and functional motor abilities of moderate and severe disabilities. Attention is given to an overview of moderate and severe populations, spinal cord injured and amputees. The course will also address such related topics as bloodborn pathogens, screening and assessment methods, related professional services, leisure placement strategies, due process, advocacy, and legal considerations. (Prerequisite: PE 560)

School of Education & Allied Studies

PE 532 Applied Kinesiology in Sport and Dance (2 crs.)

In-depth analysis of sport skills and dance movements with anatomical and mechanical principles for improvement of performance, including the analyzation from rudimentary skill level to the advanced level in selected areas. (*Prerequisites: PE 220 or equivalent*)

PE 533 Applications of Exercise Physiology (2 crs.)

Emphasis will be placed on the strategies utilized to develop physiological capacities underlying motor skills as well as the physiological variations induced by these stimuli. The course will necessarily concern cardiovascular endurance, strength, muscular endurance, flexibility and body composition from the perspective of physiology. (*Prerequisite: PE 401*)

PE 537 Applied Research Project (1 cr.)

In this course, students complete an applied research project which integrates theory and practice utilizing education research format and disciplinary knowledge.

PE 540 Sports Injuries: Prevention and Care (3 crs.)

An introduction into the theories and principles surrounding the care and prevention of athletic injuries. Classroom study will include pre-season conditioning programs, protective equipment, acute emergency injury and illness care and prophylactic techniques.

PE 544 Applied Laboratory Techniques in Exercise Science (3 crs.)

Students will utilize a number of laboratory techniques to assess fitness capabilities and health status of normal subjects. Focus will be on standardization of procedures and collection of reliable and valid data. An additional concern will be clear representation and interpretation of classical techniques used to routinely assess physical fitness in the laboratory.

PE 545 Physical Conditioning and Training in Sports and Exercise (3 crs.)

This course is designed to provide the sport practitioner, i.e., the coach, athlete, team trainer, and physical educator, with a basic understanding of the physiologic principles underlying the physical conditioning process. Methods of planning, implementing and evaluating training programs will be the main focus of attention. (*Prerequisite: introductory course in exercise physiology or consent of the instructor*)

PE 546 Biomechanics of Sport (3 crs.)

This course provides students with a knowledge and understanding of the mechanical concepts underlying performance of motor skills. Focus is on analytic techniques which allow students to analyze skills and effectively consume complex skill analyses conducted by others.

PE 550 Sports Medicine for the Athletic Woman (3 crs.)

This course will focus on today's athletic woman and will include current concepts of conditioning programs, management of athletic injuries/conditions relevant to women in sports.

PE 581 Selected Topics in Physical Education (1-3 crs.)

Special topics of current relevance in physical education will be offered from time to time. The topic to be addressed will be announced in pre-registration publications. May take more than once with consent of adviser. (*Prerequisites: course prerequisites may be specified depending on the nature of the topic*)

PE 595 Internship in Physical Education (1-6 crs.)

An internship offers qualified students the opportunity to gain substantial practical experience within their major. Placements are designed to complement a student's program concentration. (*Prerequisite: 12 graduate credits of physical education and consent of adviser*)

Physical Education Activity Courses

Physical Education Activity courses are offered on a quarter or semester basis for the following credit: 1.0 credit for a three-hour quarter course; 2.0 credits for a three-hour semester course. A maximum of six credit hours in physical education courses may be used toward graduation (this does not apply to physical education majors dance minors and students enrolled in the Theatre, Dance and Speech Communication concentration in the Communication Arts and Sciences major.)

PE 131 Volleyball I—Beginner

Concepts and fundamental skills of volleyball, team play, rules and game strategy. *Either semester*

PE 132 Field Hockey I

Development of basic skills, concepts and strategies for playing the game with understanding and application of rules. *Fall semester*

PE 133 Basketball—Beginner

Fundamental skills of basketball, elementary offense and defense strategies. *Either semester*

PE 140 Women's Lacrosse

Fundamental skills, strategies, rules and knowledge for playing the women's game. *Spring semester*

PE 141 Soccer

Fundamental skills of soccer including: kicking techniques, trapping, heading, offensive and defensive strategy and rules of the game. *Either semester*

PE 145 Flag Football

Concepts and fundamental skills of the game including rules and strategy of play. *Either semester*

PE 150 Beginner Swimming

Basic aquatic orientation. Emphasis on developing basic swimming strokes, survival floating for the shallow water swimmer. *Either semester*

PE 152 Lifeguard Training

Emphasis is on philosophy, requirements, duties, and responsibilities of lifeguarding. Successful completion of course requirements will earn Red Cross Certification in CPR for the Professional Rescuer, Community First Aid, and Lifeguard Training, Waterfront Lifeguarding Module may be included. (*Prerequisites: Intermediate Swimming or comparable proficiency level, successful completion of a swimming proficiency test*). Offered both semesters

Movement Arts, Health Promotion & Leisure Studies

PE 153 Jazz Dance

This course provides experiences with a variety of jazz styles, including lyric and percussive. Emphasis is on performance of choreographed routines and mastery of isolations and syncopations. *Either semester*

PE 154 Ballet

This semester course is aimed at the mastery of basic ballet technique including work at the barre, center adagio and allegro, and across the floor combinations.

PE 157 Movement and Relaxation I

Theories and techniques of Yoga and relaxation, and basic movement related to daily activities.

PE 161 Folk Dance

Folk dance terminology, formations, and dance steps. Course will include insight into the background and customs of the people in the countries where the dances originated. *Either semester*

PE 162 Creative Modern Dance I

This course is an introduction to the creative and technical elements of modern dance. There will be explorations of body movements in time through space with force. *Either semester*

PE 163 Aerobics

A series of easy to learn dances that combine the health and figure benefits of jogging with the fun and vigor of dancing. It is recommended that participants should be in good physical condition and anyone over 35 years have a physical examination prior to enrolling in the class. *Either semester*

PE 164 Square Dance

An introduction to the contemporary square dance. *Either semester*

PE 165 Tap Dance I

This course will explore the basic skills of tap dance using physical practice analysis, film critiques and performance. Basic tap vocabulary will be mastered.

PE 166 African Dance

This course will introduce students to the dance styles of Africa and the Caribbean using the Dunham techniques as its technical base. There will be discussion of the cultural history of African and Caribbean styles and their effect on American dance.

PE 167 Street Dance

This course will deal with the basic technique of street dance from electric boogie to hip hop and electric slide. Students will be encouraged to share from their own dance background.

PE 168 Ballroom Dance

This course will introduce students to the basic steps, rhythms and timing and performance. Dances covered will include the waltz, fox trot, swing, polka, and a sampler of Latin dances.

PE 170 Bowling I—Beginner

Concepts and fundamentals of bowling: approach, delivery, follow through, and strategy of play. \$4.50 per week fee, approximately. *Either semester*

PE 173 Archery I—Beginner

Concepts and fundamental skills of archery including methods of aiming, scoring, and introduction to novelty events. *Either semester*

PE 174 Tennis I—Beginner

Concepts and fundamental skills of tennis including forehand, backhand, serve, rules and strategy of singles and doubles play. *Either semester*

PE 175 Golf I—Beginner

Concepts and fundamental skills of the game including rules and scoring. A minimal fee of approximately \$3.00 for use of facilities will be charged. *Either semester*

PE 176 Badminton I—Beginner

Fundamental skills, rules and game concepts in order to prepare students for satisfying play experiences. *Either semester*

PE 186 Track & Field

Skills of track and field including running, jumping, throwing events, and their progressions. *Either semester*

PE 188 Jogging and Road Running

An introduction to jogging and road running. Emphasis on knowledge and application of training technique and running mechanics, as they apply to the spectrum of running from jogging to road racing and marathoning. *Alternate years*

PE 190 Conditioning

Concepts, exercises and activities related to the development of physical fitness, including isometrics, weights and running. *Either semester*

PE 193 Weight Training

Emphasis will be on concepts and development of physical fitness through individualized weight training programs. *Alternate years*

PE 194 Wrestling

Fundamentals of college wrestling with emphasis on mat skills, rules, scoring and strategy.

PE 196 Fencing I—Beginner

Concepts and fundamental skills of fencing including defense, feints, lunges, parries, ripostes, and disengages.

PE 202 Orienteering

Development of skills in the use of maps and compass as related to the sport of orienteering.

PE 203 Basic Rock Climbing

Development of fundamental skills and techniques used in rock climbing with special attention to belaying and safety considerations.

PE 231 Volleyball II—Intermediate

A follow-up of Volleyball I with emphasis on increased proficiency of performance and game strategy. (*Prerequisite: PE 131 or comparable experience*)

PE 233 Basketball II—Intermediate

A follow-up of Basketball I with emphasis on advanced strategy and game play. (*Prerequisite: PE 133 or comparable experience*)

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PE 235 Rhythmic Activities: Programming For All Ages

Designed to provide a basic understanding of rhythmical movements and their application for programming for all age groups. The course will include a variety of expressive locomotor, non-locomotor and manipulative movements. *Offered once per year.*

PE 243 Ballet II

This course is a continuation of work begun in Ballet I. Ballet technique will be learned at the barre, in center adagio and allegro combinations and in traveling across the floor. *(Prerequisite: PE 154 or previous experience in ballet)*

PE 244 Softball

Concepts and fundamental skills of the games including rules and strategy of play. *Spring semester*

PE 250 Intermediate Swimming

Continued emphasis on developing basic swimming skills, strokes, diving, survival techniques. This course is for the deep water swimmer. *(Prerequisite: PE 150 or comparable experience) Either semester*

PE 253 Jazz Dance II

The class is a second level of jazz dance which takes the basics and expands on them through dance combinations and locomotor patterns. *(Prerequisite: PE 153 or previous jazz dance experience)*

PE 254 Water Polo

Includes basic movements, skills, and maneuvers of the sport of water polo with emphasis on offensive and defensive fundamentals and strategies, practical drills, rules, and regulations. *Offered once per year*

PE 257 Movement and Relaxation - Theory, Practice and Performance

This course will introduce students to the theory, practice and performance of Yoga, relaxation procedures and basic movements related to daily activities.

PE 258 Modern Dance Technique

The course will deal with the performance of modern dance technique through the study of styles of various modern dance artists.

PE 262 Modern Dance II

The course is a continuation of the creative and technical performance of modern dance. Greater emphasis will be placed on individual and group compositions and improvisations.

PE 265 Tap Dance II

This course will build on the basic skills learned in Tap Dance I to enable the student to learn more complex skills and combinations. New skills will be learned through practice and performance, analysis and critique of masters of tap. *(Prerequisite: PE 165 or consent of instructor)*

PE 268 Ballroom Dance II - Theory, Practice and Performance (1 cr.)

This course will be a continuation of the theory, practice and performance of ballroom dance. Intermediate theory, practice and performance of the Swing, Tango, Cha Cha, Waltz, Fox Trot and selected Latin dances will be covered. *(Prerequisite: PE 168 or consent of instructor)*

PE 270 Bowling II—Intermediate

A follow-up of Bowling I with emphasis on increased skill and consistency. \$4.50 per week fee, approximately. *(Prerequisite: PE 170 or comparable experience)*

PE 274 Tennis II—Intermediate

A follow-up of Tennis I with emphasis on volley, lob, smash, and game strategy. *(Prerequisite: PE 174 or comparable experience)*

PE 276 Badminton II—Intermediate

A follow-up of Badminton I with emphasis on advanced skills, singles and doubles play, and game strategy. *(Prerequisite: PE 176 or comparable experience)*

PE 278 Bicycle Touring

An understanding and appreciation for the sport of cycling through the application of body mechanics, cycling techniques, knowledge of multigeared bikes and the many aspects of touring. Students must have a 10-speed bike.

PE 280 New Games

This course is designed to introduce the philosophy of new games and develop a repertoire of non-competitive, cooperative and collaborative games suitable for a variety of age groups. The students will experience the psychomotor and affective components embodied in the new games concept. *Offered once per year.*

PE 285 Gymnastics

Concepts and fundamental skills of vaulting, balance beam, parallel bars, uneven parallel bars, high bar, side horse, rings and free exercise. *Either semester*

PE 350 Advanced Swimming

Emphasis on developing a high level of aquatic skill through instruction in advanced strokes, springboard diving, swimming turns, and survival techniques. Specialized aquatic activities may be offered. *(Prerequisite: PE 250 or comparable experience)*

PE 354 Scuba Diving

The fundamentals of skin and scuba diving. Emphasis on safety using the self contained underwater breathing apparatus. *(Prerequisites: Intermediate Swimming or comparable skill proficiency, successful completion of a swimming proficiency screening test). Offered Spring semester only*

PE 356 Canoeing I

Instruction in fundamental skills of canoeing, and small craft safety techniques.

Other Approved Courses:

PE 134 Self Defense

PE 182 Ski Touring

Movement Arts, Health Promotion & Leisure Studies

Recreation

RC 230 Introduction to Recreation (3 crs.)

The history of recreation from primitive man to the present. Philosophies of recreation, leisure, work and play are presented. Recreation services and career opportunities are discussed. Professional organizations and literature are reviewed. *Fall semester*

RC 330 Theory and Principles of Leisure (3 crs.)

A course designed to provide the student an opportunity to explore the impact of leisure on society and the individual. Economic, educational, social and psychological phenomena and the force each has on leisure are examined.

RC 331 Outdoor Recreation Resources (3 crs.)

Study of the design, effective use, management and programs of outdoor recreation and conservation areas.

RC 332 Leadership and the Group Process (3 crs.)

This course provides theory and experiences necessary to develop an understanding of leadership, group dynamics and effective group skills.

RC 333 Camp Leadership and Organized Camping (3 crs.)

A study of organized camps and camping programs with particular emphasis on program planning, selection and training of staff, and administrative details in organized camping. *Offered alternate years*

RC 461 Organization and Administration in Recreation (3 crs.)

Organization and administration of recreation at public, private and commercial agencies are examined. Planning, organizing, directing, controlling and evaluating leisure services is included. *Spring semester*

RC 462 Programming for Recreation and Leisure (3 crs.)

The opportunity to plan, conduct, evaluate and observe a wide variety of both on-campus and community-based programs and activities. *Spring semester*

RC 463 Field Problems in Recreation (3 crs.)

A study of selected problems in various areas of recreation through guided individual and group field experience. *(Prerequisite: consent of the instructor) Offered alternate years*

RC 475 Games Leadership Workshop (3 crs.)

This workshop is designed for people interested in building relationships through play in games. The games emphasis will move away from the familiar competitive play experience to the non-competitive, supportive and cooperative play experience. Participants will develop a repertoire of games suitable for all ages. Leadership competence will provide participants with the tools to take games to others in schools, business, community groups and the family.

RC 498 Field Experience in Recreation (3-15 crs.)

A field experience offers qualified students the opportunity to gain practical experience in their field of study. Placements are made in both public and private agencies and are designed to complement the student's theoretical study. *(Prerequisite: consent of the department; formal application required) Either semester*

RC 499 Directed Study in Recreation (1-3 crs.)

Open to all juniors and seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits. *(Prerequisite: consent of the department; formal application required) Either semester*

Department of Secondary Education & Professional Programs

High School Education

Middle School Education

Counseling

Educational Leadership and Administration

Instructional Technology

Library Media

Faculty

Chairperson: Associate Professor Mary Frances Zilonis

Professors: Charles Robinson, Raymond ZuWallack

Associate Professors: Katherine Lusteg, Joanne Newcombe, Maxine Rawlins, Marilyn Shontz, Carl Smith

Assistant Professors: Victoria Bacon, John Calicchia, Dennis Maxey

Undergraduate Programs

All courses are structured to fully address the transition toward the contemporary concerns of human development, diversity, equity, and ethics. The learner is regarded as one who has an active role in constructing his/her knowledge base, values, and attitudes. The varied cultural backgrounds of students and teachers are seen as a positive context in which one can listen, consider and form knowledge structures. The department sees its role as interactive with other departments and with the School of Arts and Sciences, addressing our joint missions, and fostering the development of curriculum, methodologies and perspectives that enhance the individual and society.

All students in a teacher education program must apply for admission to, and be accepted in, a program in Professional Education through the School of Education. All undergraduate students seeking professional certification must consult



the section of this catalog entitled *School of Education and Allied Studies* for information pertaining to the *State Regulations for the Certification of Educational Personnel* and important institutional deadlines.

Middle School Minor

The Department of Secondary Education and Professional Programs offers specific sequences of courses for students who wish to prepare themselves for teaching at the middle school level (grades 5-9). The Middle School minor is designed for students seeking to qualify for one of the following specialized teaching certificates:

Middle School Generalist (Gr. 5-9)
Teacher of Biology (Gr. 5-9)*
Teacher of Communication and Performing Arts (Gr. 5-9)
Teacher of Chemistry (Gr. 5-9)*
Teacher of Earth Sciences (Gr. 5-9)*
Teacher of English (Gr. 5-9)
Teacher of History (Gr. 5-9)
Teacher of Mathematics (Gr. 5-9)
Teacher of Physics (Gr. 5-9)*
Teacher of Social Studies (Gr. 5-9)
Teacher of Spanish (Gr. 5-12)
Teacher of Visual Arts (Gr. 5-12)

* Students completing these certificates may also elect to seek Teacher of General Science by completing some additional course work.

Secondary Education & Professional Programs

In addition to majoring in an appropriate academic discipline (see below *Requirements for Education Minors*), students seeking 5-9 certification must also complete the middle school education minor.

Middle School Education Minor:

- *MS 200 Introduction to Teaching in the Middle School
- MS 300 Teaching and Learning in the Middle School I (6 credits)
- MS 400 Teaching and Learning in the Middle School II
- MS 440 Strategies for Teaching in the Middle School
- An Appropriate Arts and Sciences strategies course (in consultation with adviser)
- MS 490 Student Teaching Practicum – Middle School (12 credits)

*To be completed prior to admission to Professional Education and enrollment in any other MS or ED course.

Instructional Media Minor

- ME 310 Introduction to Instructional Media
- AR 216 Basic Photography
- ME 456 Radio and TV Production I
- ME 460 Graphics for Designing Media
- Six (6) additional credits in instructional media (with program approval)

Secondary Education Minor

The department offers a minor in secondary education. A student selecting this minor must, in addition, select a major in an appropriate academic discipline. The major requirements for each academic discipline, including cognates and the secondary education minor, are described on following pages.

The secondary education minor is designed for students desiring to qualify for one of the following specialized teaching certificates:

Teacher of Biology	Gr. 9-12
Teacher of Chemistry	Gr. 9-12
Teacher of Communication and Performing Arts	Gr. 9-12
Teacher of Earth Sciences	Gr. 9-12
Teacher of English	Gr. 9-12
Teacher of History	Gr. 9-12
Teacher of Mathematics	Gr. 9-12
Teacher of Music	Gr. 5-12
Teacher of Physics	Gr. 9-12
Teacher of Social Studies	Gr. 9-12
Teacher of Spanish	Gr. 5-12
Teacher of Visual Arts	Gr. 5-12

In addition to majoring in an appropriate academic discipline (see below, *Major Requirements for Education Minors*), students seeking 9-12 certification must also complete the secondary education minor.

Secondary Education Minor:

- *HS 220 Teaching in the High School
- HS 230 Educational Psychology
- HS 240 Classroom Management in the High School
- HS 360 Aims and Philosophy of High School Education
- HS 370 Evaluating Teaching and Learning in the High School
- An appropriate course from the group
- HS 412-430 Strategies for Teaching in the High School
- HS 490 Student Teaching Practicum—High School

*To be completed prior to admission to Professional Education and enrollment in any other education courses.

Major Requirements for Education Minors

Students desiring to complete a minor in secondary or middle school education must also complete an academic major. Appropriate academic majors, along with major and cognate requirements, are listed below. It is important to note that in many cases the major or cognate requirements for students selecting an education minor are somewhat different from those that hold for students who do not minor in education.

Biology (Teacher of Biology 5-9 or 9-12)

Major courses:

- BI 100 General Principles of Biology
- BI 104 Animal Morphology
- BI 118 Evolution
 - or
 - BI 422 Biological Evolution
- BI 200 Cell Biology
- BI 240 Plant Morphology
- BI 382 Comparative Chordate Anatomy
 - or
 - BI 284 Invertebrate Zoology
- BI 321 Genetics
- BI 341 Plant Physiology
- BI 373 Animal Physiology
- BI 425 Population Ecology
- BI 428 Microbiology

Cognate courses:

- CH 131-132 General Chemistry I-II
- ES 100 Physical Geology
- PH 181-182 Elements of Physics I-II
- MA 141 Elements of Calculus I

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Plus an additional course in calculus (MA 142), statistics, or computer science.

Chemistry (Teacher of Chemistry 5-9 or 9-12)

Major courses:

CH 100 Computer Science in Chemistry

or

CS 101 Computer Science I

CH 131-132 General Chemistry I-II

or

CH 141-142 Chemical Principles I-II

CH 241 Inorganic Quantitative Analysis

CH 242 Intermediate Inorganic Chemistry

CH 343-344 Organic Chemistry I-II

CH 381-382 Physical Chemistry I-II

CH 450 Instrumental Analysis

Cognate courses:

MA 151-152 Calculus I-II

or

MA 141-142 Elements of Calculus I-II

PH 243-244 General Physics I-II

or

PH 181-182 Elements of Physics I-II

Plus one year of a foreign language

Communication & Performing Arts Teacher Certification

Students selecting the concentration in Theatre, Dance and Speech are pursuing Commonwealth of Massachusetts certification for teaching Communication & Performing Arts in elementary, middle or high school. Requirements for the certificate include specific preparation in teacher education, a B.A. with a liberal arts and sciences major, and completion of coursework which addresses a specific list of competencies. The program listed on the next page is a liberal arts and sciences major which contains the coursework to address those competencies. The core requirements provide the broad perspective on the three disciplines of speech communication studies, theatre arts and dance, while the elective course groupings allow students to specialize.

Course Requirements

CT 115 Play Production*

CT 146 Dance Appreciation

CC 210 Voice and Diction

CC 230 Introduction to Communication

CT 496 Seminar in Theatre, Dance and Speech Communication

Elective Course Groupings

Complete one of the following groupings of courses:

I. Speech Communication

CC 220 Introduction to Mass Communication

CC 250 Public Speaking

CC 260 Group Communication and Decision Making

CC 270 Interpersonal Communication

CC 295 Communication Studies Research

CC 360 Argumentation and Advocacy

CC 395 Communicative Theory

II. Theatre Arts

CT 220 Play Analysis for Production

CT 226 Children's Theatre*

CT 242 Acting I

CT 272 Stagecraft

CT 430 Playwriting

CT 431 Directing I

Practica (Three credits from among the following courses, at least two of which must be from CT 170 or CT 185. Ideally, the student in this program should complete one of each of the following):

CT 140 Theatre Performance Practicum

CT 170 Technical Theatre Practicum

CT 185 Theatre Management Practicum

III. Dance

CT/PE 155 Dance Practicum (2 semesters)

CT/PE 251 Dance History*

CT/PE 255 Creative Dance I*

CT/PE 256 Creative Dance II

CT 353 Creative Dance for Children

CT/PE 357 Dance Production Theory

CT/PE 358 Dance Production Techniques

Cognates (see Dance Cognates below — at least 1 cr. must be second level)

IV. Speech/Theatre Arts

CC 220 Introduction to Mass Communication

CC 250 Public Speaking

CC 270 Interpersonal Communication

CC 360 Argumentation and Advocacy

or

CT 210 Oral Interpretation

CT 220 Play Analysis for Production

CT 242 Acting I

CT 431 Directing I

V. Theatre Arts/Dance

CT 220 Play Analysis for Production

CT 242 Acting I

CT 431 Directing I

or

CT 272 Stagecraft

CT/PE 255 Creative Dance I*

CT/PE 256 Creative Dance II

CT/PE 357 Dance Production Theory

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CT/PE 358 Dance Production Techniques

* These courses fulfill a General Education Requirement, but only one arts GER is allowed in a discipline.

Dance Cognates

PE 153 Jazz Dance
PE 154 Ballet I
PE 166 African Dance
PE 167 Street Dance
PE 243 Ballet II
PE 253 Jazz Dance II
PE 258 Modern Dance Technique
PE 259 Dance Repertory
PE 262 Modern Dance II

Earth Sciences (Teacher of Earth Science 5-9 or 9-12)

Major courses:

ES 100 Physical Geology
ES 101 Historical Geology
ES 284 Geomorphology
ES 301 Solar System Astronomy
ES 306 Biological Oceanography
GE 203 Meteorology
ES 372 Mineralogy
ES 463 Petrology
ES 496 Seminar in Geology

Plus nine additional semester hours of approved earth sciences electives

Cognate courses:

MA 151-152 Calculus I-II
or
MA 141-142 Elements of Calculus I-II
CH 131-132 General Chemistry I-II
or
CH 141-142 Chemical Principles I-II
One year of Physics or Biology

English (Teacher of English 5-9 or 9-12)

Major courses:

EN 101 Writing I
EN 102 Writing II
EN 203 Writing About Literature
EN 211 Literary Classics of Western Civilization to 1600
or
EN 221 Major British Writers to 1800
EN 301 Writing and the Teaching of Writing
EN 305 History of the English Language
or
EN 323 Introduction to Linguistics

One English literature course before 1800
One English literature course after 1800

One American literature course
One advanced Shakespeare course
Plus four English electives.
One world literature course
One literature seminar

Students pursuing student teaching and certification in English may not substitute ED 440 for ED 414.

History (Teacher of History 5-9 or 9-12)

Required courses:

- one course from among:
 - HI 111 Western Civilization to 1715
 - HI 121 The Ancient World
 - HI 131 World History to 1500
 - and
- one course from among:
 - HI 112 Western Civilization since 1715
 - HI 132 World History since 1500
- HI 221 U.S. History and Constitutions to 1865
- HI 222 U.S. History and Constitutions since 1865
- One course taken from each of the following areas:

Area III	Ancient, Medieval, Early Modern Europe
Area IV	Modern Europe
Area V	U.S. History to 1877
Area VI	U.S. History since 1877
Area VII	The Traditional Modern World
Area VIII	U.S. History-Topical
- Two additional upper division (300 and 400 level) history electives, which must be taken in different geographical areas (World, Europe, U.S.A.)

Note: Students seeking middle school or high school certification with a history major should select an additional course in Area III as one of their electives so that they have taken one course from the Ancient/Medieval offerings and one from Early Modern Europe

- Either HI 495 Undergraduate History Colloquium
or
HI 496 Undergraduate History Seminar
Students may use these courses to meet area requirements

Only six hours of 100 level and six hours of 200 level courses may be applied toward a history major or minor.

No more than three hours from the following may be used toward the 36 hours for a history major: HI 392, 498, 499.

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Social Studies (Teacher of Social Studies 5-9 or 9-12)

Required courses:

Candidates for Social Studies Certification must meet the requirements of Teacher of History as well as the requirements listed below.

Political Science - six hours:

PO 172 Introduction to American Government

or

PO 277 American Government: State and Local
and
PO 260 International Relations

Economics - three hours

EC 101 Principles of Microeconomics

or

EC 102 Principles of Macroeconomics

Geography - twelve hours

GS 110 Human Geography

GS 320 Geography: Materials and Methods

One upper level regional geography course

One course selected from the following:

GE 196 Environmental Geography

or

GS 353 Urban Geography

GS 362 Economic Geography

or

GS 473 Political Geography

Sociology and Anthropology - three hours

SO 102 Introduction to Sociology

or

AN 100 Introduction to Cultural Anthropology

Psychology - three hours

PY 100 Introductory Psychology

General Science (Teacher of General Science 5-9 or 9-12)

Students seeking this certificate must complete the requirements for Teacher of Biology, Chemistry, Earth Science or Physics. Additional courses required for General Science certification are listed in the departmental section of the catalog for each of the above science majors.

Mathematics (Teacher of Mathematics 5-9 or 9-12)

Major courses:

CS 101 Computer Science I

MA 151-152 Calculus I-II

MA 201 Calculus III

MA 202 Linear Algebra

MA 301 Abstract Algebra

MA 401 Introduction to Analysis I

MA 403 Probability Theory

Four electives from any 300-400 level courses except MA 318

Cognate courses:

PH 243-244 General Physics I-II

Plus one year of a foreign language

Physics (Teacher of Physics 5-9 or 9-12)

Major courses:

PH 243-244 General Physics I-II

PH 375 Wave Theory

or

PH 435 Optics

PH 401 Modern Physics

PH 403 Mathematical Physics

PH 438 Electricity and Magnetism

PH 442 Digital Electronics

Cognate courses:

MA 151-152 Calculus I-II

MA 201 Calculus III

MA 316 Differential Equations

CH 141-142 Chemical Principles I-II

Spanish (Teacher of Foreign Language 5-12)

LS 252 Reading in Spanish

LS 272 Spanish Composition

LS 281 Spanish Conversation and Phonetics

LS 371 Advanced Spanish Conversation

LS 391 Spanish Civilization

LS 392 Spanish-American Civilization

LS 400 Survey of Spanish Literature

LS 401 Topics in Spanish Literature

LS 402 Survey of Spanish-American Literature

LS 403 Topics in Spanish-American Literature

LS 490 Seminar in Hispanic Literature

Students pursuing student teaching and certification in Spanish may not substitute ED 440 for ED 424. FL 324 is prerequisite to ED 424.

Visual Arts (Teacher of Visual Arts Pre-K-9 and 5-12)

Core Requirements:

AR 125 Drawing I

AR 130 Two Dimensional Design

AR 140 Three Dimensional Design

AR 216 Basic Photography

AR 225 Drawing II

AR 230 Painting I

AR 240 Sculpture I

AR 255 Printmaking I

AR 260 Introduction to Graphic Design

AR 270 Ceramics

AH 201 Survey I

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AH 202 Survey II
AH 307 20th Century Art and Architecture

Cognate Courses:

PL 325 Philosophy and the Arts

Also
(5-12)

HS 220 Teaching in the High School or MS 200 Introduction to Middle School

HS 230 Educational Psychology

HS 240 Classroom Management in the High School

HS 370 Evaluating Teaching and Learning in the High School

HS 425 Strategies for Teaching Art in the High School

ED 459 Strategies for Teaching in the Middle School

MS 400 Middle School Preparation II

MS 495 Middle School Practicum

or

HS 490 Student Teaching Practicum - High School

HS 425 Strategies for Teaching High School Art in the High School

(Pre-K-9)

EE 220 Principles of Teaching

HS 230 Educational Psychology

EE 362 Methods and Materials in Elementary Art

ED 459 Strategies for Teaching in the Middle School

or

MS 440 Middle School Strategies

EE 312 Educational Evaluation

SE 202 The Learner with Special Needs in School and Society

EE 490 Supervised Teaching Elementary School Art

Graduate Programs

The Department of Secondary Education and Professional Programs offers several programs designed to meet the needs of graduate students:

- Post baccalaureate programs that allow students to apply for provisional certification with advanced standing in designated high school and middle level subject areas (9-12, 5-9);
- A clinical master's degree program, in conjunction with several of the academic departments of the college, that leads to the degree of Master of Arts in Teaching (M.A.T.) and provides eligibility for standard certification in designated high school and middle level subject areas (9-12, 5-9);

- In conjunction with several of the academic departments of the college, a Master of Arts in Teaching degree program in designated subject areas for persons who have standard certification;
- In addition the department offers the degree of Master of Education (M.Ed.) in several areas of study: counseling, educational leadership, library media studies, and instructional technology;
- A CAGS in Education with a focus on educational leadership is also offered. (In addition, Bridgewater CAGS graduates who apply to and are accepted into the doctoral program in educational leadership at the University of Massachusetts-Lowell may apply up to 24 CAGS credits toward the 60 credits required for the degree.)

Post Baccalaureate Program: Provisional Certification With Advanced Standing for High School (Subject Areas: 9-12) and Middle Level Teachers

Program Coordinator: Dr. Charles Robinson

This program is designed for persons who have a bachelor's degree and wish to be certified in one of the following areas:

Teacher of Visual Art (Pre-K-9, 5-12)
Teacher of Biology (5-9, 9-12)*
Teacher of Chemistry (5-9, 9-12)*
Teacher of Communication and Performing Arts (all levels)
Teacher of Earth Science (5-9, 9-12)*
Teacher of English (5-9, 9-12)
Teacher of Foreign Language (5-12)
Teacher of History (5-9, 9-12)
Teacher of Mathematics (5-9, 9-12)
Teacher of Music (Pre-K-9, 5-12)
Teacher of Physics (5-9, 9-12)*
Teacher of Social Studies (5-9, 9-12)
Middle School Generalist (5-9)

* Students completing these certificates may also elect to seek Teacher of General Science by completing some additional coursework.

For detailed program information, students should contact the program coordinator.

For information regarding application procedures and admission standards, students should consult the *Graduate School* section of the catalog.

School of Education & Allied Studies

Students seeking provisional certification with advanced standing should consult the section of this catalog entitled *School of Education and Allied Studies* for information pertaining to teacher certification, admission to and retention in Professional Education, as well as important institutional deadlines.

Upon acceptance to the program, all students must enroll under the direction of their graduate adviser in GP 501 Graduate Program Planning (1 credit). During Graduate Program Planning the adviser and the student map out the student's course work and the adviser will answer any questions the student may have relative to his/her program. Specific certification course requirements may be waived by the college if the student's documented request is approved under state approved procedures.

Students admitted to the post baccalaureate certification program must complete or have already completed an approved undergraduate major in the appropriate discipline area. In addition, students must complete the following courses in education:

For 9-12 certification

- *HS 220 Teaching in the High School
- HS 230 Educational Psychology
- HS 240 Classroom Management in the High School
- HS 360 Aims & Philosophy of High School Education
- HS 370 Evaluating Teaching and Learning in the High School
- HS 412-430 Strategies for Teaching in the High School
or
- HS 440 Methods and Materials in Secondary Education
- HS 490 Student Teaching Practicum - High School

For 5-9 certification

- *MS 200 Introduction to the Middle School
- MS 300 Middle School Preparation I (6 crs.)
- MS 400 Middle School Preparation II
- MS 440 Middle School Strategies
- An appropriate arts and sciences strategies course
- MS 495 Middle School Practicum

**To be completed prior to admission to Professional Education and enrollment in any other education courses.*

Students successfully completing the program are eligible to apply for provisional Massachusetts certification with advanced standing.

Master of Arts in Teaching Clinical Master's Program High School (Subject Areas: 9-12) and Middle Level (Subject Areas: 5-9) Teachers

This master's degree program is designed for persons who have provisional certification with advanced standing and are seeking standard certification in one of the following areas:

- Teacher of Visual Arts (Pre-K-9, 5-12)
- Teacher of Biology (5-9, 9-12)
- Teacher of Chemistry (5-9, 9-12)
- Teacher of Earth Sciences (5-9, 9-12)
- Teacher of English (5-9, 9-12)
- Teacher of Health (Pre-K-9, 5-12)
- Teacher of History (5-9, 9-12)
- Teacher of Mathematics (5-9, 9-12)
- Teacher of Physical Education (Pre-K-9, 5-12)
- Teacher of Physics (5-9, 9-12)
- Teacher of Social Studies (5-9, 9-12)

For information regarding application procedures and admission standards, students should consult the *Graduate School* section of the catalog.

Students seeking standard certification should consult the section of this catalog entitled *School of Education and Allied Studies* for information pertaining to professional certification, admission to and retention in Professional Education, as well as important institutional deadlines.

All accepted students must enroll under the direction of their adviser in GP 501 Graduate Program Planning, which is described under "Graduate Adviser and Program Planning" in the *Graduate School* section of this catalog. As part of their program, students must satisfactorily complete the following curriculum:

Education Core

- GP 501 Graduate Program Planning (1 cr.)
- ED 530 Research Methods
- ED 531 The Curriculum Experience
- ED 532 Critical Issues - Educators and Society
- ED 533 Effective Practices in Human Development
- ED 534 Clinical Experience (6 crs.)
- ED 537 Applied Research Project (2 crs.)

(Course descriptions for ED 530-537 are provided in the *School of Education and Allied Studies* section of the catalog.)

Discipline Area Requirements

Students will meet Standard I: Pedagogical Content Knowl-

Secondary Education & Professional Programs

edge of the Massachusetts Regulations for Certification of Educational Personnel by successful completion of:

1. a minimum of 15 graduate credits in the discipline area of certification
2. an applied research project (1 cr.) in the discipline area (— 537).

For details regarding discipline area requirements, students should consult the M.A.T. information listed in the appropriate academic department section of this catalog.

Students who successfully complete the above curriculum are eligible for standard certification.

Students will be required to pass a comprehensive examination prior to being eligible to receive the Master of Arts in Teaching degree.

Master of Arts in Teaching Program for Teachers with Standard Certification

This program is designed for secondary and middle level subject area teachers who have standard certification.

All accepted students must enroll under the direction of their adviser in GP 501 Graduate Program Planning, which is described under "Graduate Adviser and Program Planning" in the *Graduate School* section of this catalog. As part of their program, students must satisfactorily complete the following curriculum:

- GP 501 Graduate Program Planning (1 cr.)
- ED 530 Research Methods
- ED 531 The Curriculum Experience
- ED 532 Critical Issues - Educators and Society
- ED 533 Effective Practices in Human Development & Learning

(Course descriptions for ED 530 - 533 are provided in the *School of Education and Allied Studies* section of this catalog.)

Program Electives

A minimum of 18 approved graduate credits in the academic area of concentration, which meet the academic and professional objectives of the student.

Successful completion of a comprehensive examination is also required.

Counseling Program

Program Coordinator: Dr. John Calicchia

Master of Education in Counseling

The Master of Education in Counseling (M.Ed.) is a graduate program which has been designed to professionally train students for employment in a variety of School Counseling, Mental Health Counseling and Higher Education/Student Affairs settings. The program's credit hour requirement ranges from 48 to 60 credit hours, which is dependent on the subspecialty area selected by the student.

General Admissions Criteria for the Counseling Program

The counseling program seeks to admit students who will become highly effective professional counselors. As such, the program looks at each student's application as a whole and does not exclude students based on any one criteria. Students must submit a complete application by October 1st for a spring semester admission and April 1st for a Fall semester admission. All admission decisions are made by a committee of program faculty and are based on national standards outlined below.

1. input from regular and affiliate faculty;
2. each applicant's potential success in forming effective interpersonal relationships in individual and small group contexts;
3. each applicant's aptitude for graduate-level study;
4. each applicant's vocational goals and objectives, and their relevance to the program;
5. each applicant's openness to self-examination and personal and professional self development; and
6. the capabilities and competencies of current program faculty.

All students initially accepted will be conditionally admitted to only one of the following specialty areas outlined below. All students must successfully complete the four core requirements (GC 510, ED 530, GC 528, GC 529) to become a masters candidate. Matriculating students who desire to change program tracks must file a formal petition for change of track with the Counseling Program Committee.

Applicants who do not formally meet the above criteria but who demonstrate exceptional expertise or promise are encouraged to apply. The Counseling Program faculty actively seeks to recruit applicants with diverse backgrounds.

Students admitted to the program may elect one or more of the following subspecialty areas: School Counseling at the

School of Education & Allied Studies

Elementary and Secondary levels (48 credit hours), School Social Worker/School Adjustment Counselor (51 credit hours), Mental Health Counseling (60 credit hours) or Higher Education/Student Affairs (48 credit hours). Sample programs for each subspecialty area are described below.

All accepted students must enroll under the direction of their adviser in GP 501 Graduate Program Planning, which is described under "Graduate Advisers and Program Planning" in the *Graduate School* section of this catalog.

Prospective candidates who have not been formally accepted into the program are urged to confine their selection of courses to two of the four "core" curriculum areas. Specific assistance may be obtained from the program coordinator.

Field experiences (e.g., practicum or internship) are required of all students. Depending on the specialty area, students complete between 450 and 700 hours of supervised clinical activity. Each student, in conjunction with an academic adviser, selects an appropriate site and is supervised by an on-site professional while meeting with a Bridgewater State College faculty member for a field experience seminar. Most importantly, students must submit a **Field Experience Application** to the program coordinator to register for any of the following practicum/internship classes: GC 548, GC 549, GC 558, GC 559, GC 569, GC 570, GC 571, GC 572, GC 573, GC 576, GC 590 and GC 591. Field experience applications must be completed by April for the fall semester and by October for the spring semester.

Comprehensive examinations are administered in November and March. The examination, which requires integrating theory and practice in the areas emphasized by the counseling program, may not ordinarily be taken prior to the last term of course work. Previous examinations are on reserve at the main desk at the Maxwell Library.

School Counseling (48 credit hours)

Admissions Requirements for School Guidance Counseling

- A bachelors degree in psychology or a related field which includes at least two of the following courses: General Psychology, Abnormal Psychology, and Developmental Psychology.
- A 2.8 undergraduate GPA.
- A composite score of 1000 on the quantitative and verbal parts of the GRE General Test.
- Three letters of recommendation, at least one of which should be from a supervisor who has knowledge of the applicants aptitude for the counseling profession and

counseling related experience.

- Applicants must have successful experience in a counseling capacity specifically related to working with children in an educational setting.
- All applicants will be required to interview with a faculty member.
- A completed application, including a three hundred word personal statement that explains, based on previous experience, why a student is selecting a career in counseling.

School Guidance Counselor Certification

Course requirements leading to provisional with advanced standing and standard certification by the Massachusetts Department of Education as a school guidance counselor at the pre-kindergarten through ninth grade level (Pre-K-9) or the fifth through twelfth grade level (5-12) are outlined in the sample program descriptions. Certification through the approved program with endorsement by the college will result in interstate reciprocity with signatory states as specified under the Interstate Certification Compact. To discuss the various certification program options, please consult with your adviser.

School Counseling: Sample Programs (48 credit hours)

Provisional Certification with Advanced Standing

- *GC 510 The Counseling Function in School, Agency/Community, and Higher Education Settings (3 crs.)
- *ED 530 Research Methods (3 crs.)
- *GC 528 Counseling and Development (3 crs.)
(formerly GC 530)
- *GC 529 Multicultural Counseling (3 crs.)
- GC 504 Research & Evaluation II (3 crs.)
- ED 533 Effective Practice in Human Development and Learning (3 crs.) (or ED 520)
- GC 539 Career Information and Placement (3 crs.)
- GC 532 Psychological Assessment (3 crs.) (formerly GC 533)
- GC 535 Applied Counseling: or Adolescent-Adult (3 crs.)
or
- GC 536 Applied Counseling Pre-Adolescent (3 crs.)
- GC 538 Theory and Practice of Group Interaction (3 crs.)
- GC 548 Advanced Applied Counseling Pre-Practicum Experience: Adolescent-Adult (3 crs.)
or
- GC 549 Advanced Applied Counseling Pre-Practicum Experience: Pre-Adolescent (3 crs.)
- GC 582 Principles and Methods of Community Counseling & Consultation (3 crs.)

**to be taken within the first 15 credits*

One of the following:

- GC 569 Internship-School Guidance Counselor (Pre-K-9) (9 crs.)

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- GC 570 Internship-School Guidance Counselor (5-12) (9 crs.)
- GC 571 Practicum-School Guidance Counselor (Pre-K-9) (9 crs.)
- GC 572 Practicum-School Guidance Counselor (5-12) (9 crs.)

One Elective (3 crs.)

Students should consult with their academic adviser when choosing an appropriate elective.

Standard Certification: (9 credit hours)

One of the following:

- GC 580 Post Master's Clinical Experience: School Guidance Counselor (Pre-K-9) (9 crs.)
- GC 581 Post Master's Clinical Experience: School Guidance Counselor (5-12)

School Social Worker/School Adjustment Counselor: (51 credit hours)

Admissions Requirements for Adjustment Counseling

- A bachelors degree in psychology or a related field which includes at least two of the following courses: General Psychology, Abnormal Psychology and Developmental Psychology
- A 2.8 undergraduate GPA.
- A composite score of 1000 on the quantitative and verbal parts of the GRE General Test.
- Three letters of recommendation, at least one of which should be from a supervisor who has knowledge of the applicant's aptitude for the counseling profession and counseling related experience.
- Applicants must have successful experience in mental health counseling working with children.
- All applicants will be required to interview with a faculty member.
- A completed application including a three hundred word personal statement that explains, based on previous experience, why a student is selecting a career in counseling.

In March 1996 the Department of Education approved the competencies for a School Social Worker and Adjustment Counselor Certificate. The following program is based on those competencies. **Since this program is new, it is under consideration by the Department of Education at the time of catalog publication.** Adjustment counselors serve an important role in the school setting and provide counseling and consultation in a similar, but *distinct* manner, from a school guidance counselor. Typically, adjustment counselors spend considerable time servicing the psychological and emotional needs of students. Students interested in this track should consult with their adviser.

School Social Worker and School Adjustment Counselor:
Sample Program (51 credit hours)

- *GC 510 The Counseling Function in School, Agency/Community, and Higher Education Settings (3 crs.)
- *ED 530 Research Methods (3 crs.)
- *GC 528 Counseling and Development (3 crs.)
- *GC 529 Multicultural Counseling (3 crs.)
- GC 504 Research and Evaluation II (3 crs.)
- ED 533 Effective Practice in Human Development and Learning (3 crs.)
- GC 532 Psychological Assessment (3 crs.) (*formerly GC 533*)
- GC 535 Applied Counseling: Adolescent-Adult (3 crs.)
or
- GC 536 Applied Counseling: Pre-Adolescent (3 crs.)
- GC 538 Theory and Practice of Group Interaction (3 crs.)
- GC 582 Principles and Methods of Community Counseling and Consultation (3 crs.)
- GC 568 Psychopathology (3 crs.)
- GC 534 The Professional Counselor: Standard, Ethics, and Legal Issues (3 crs.)
- GC — One Elective
- GC 575 Practicum: School Social Work/Mental Health Counselor
(12 credits) 900 hours

**to be taken within the first 15 credits*

Mental Health Counseling: Agency/Community

Admissions Requirements for Mental Health Counseling

- A bachelors degree in psychology or a related field which includes General Psychology, Abnormal Psychology, and Developmental Psychology.
- A 2.8 undergraduate GPA.
- A composite score of 1000 on the quantitative and verbal parts of the GRE General Test.
- Three letters of recommendation, at least one of which should be from a supervisor who has knowledge of the candidate's aptitude for the counseling profession and counseling related experience.
- Applicants must have successful volunteer or paid experience in a counseling capacity specifically related to mental health counseling.
- All applicants will be required to interview with a faculty member.
- A completed application, including a three hundred word personal statement that explains, based on previous experience, why a student is selecting a career in mental health counseling.

This 60 credit hour program is for those seeking license as a Mental Health Counselor in Massachusetts by the Board of

School of Education & Allied Studies

Registration. Students who graduate prior to July 1, 1998 can apply for a license with a 48 credit degree. Those students graduating after July 1, 1998 must follow the 60 credit program below in order to be eligible for a license. Program requirements have been designed to meet current state licensing requirements.

**to be taken within the first 15 credits*

*GC 510 The Counseling Function in School, Agency and Community, and Higher Education Settings (3 crs.)

*ED 530 Research Methods (3 crs.)

*GC 528 Counseling and Development (3 crs.)
(formerly GC 530)

*GC 529 Multicultural Counseling (3 crs.)

GC 504 Research & Evaluation II (3 crs.)

GC 532 Psychological Assessment (3 crs.)
(formerly GC 533)

GC 539 Career Information and Placement

GC 535 Applied Counseling: Adolescent-Adult (3 crs.)

or

GC 536 Applied Counseling: Pre-Adolescent (3 crs.)

GC 538 Theory and Practice of Group Interaction (3 crs.)

GC 568 Psychopathology (3 crs.)

or

GC 566 Child Psychopathology (3 crs.)

GC 564 Theories of Development (3 crs.)

GC 534 The Professional Counselor: Standards, Ethics, and Legal Issues (3 crs.)

GC 576 Advanced Applied Counseling: Practicum Experience (3 crs.)

GC 590 Internship Mental Health Counselor (6 crs.)

GC 591 Internship Mental Health Counselor (6 crs.)

Three electives (3 crs. each)

Electives must be graduate level course approved by the student's adviser. Students may consider the courses below or other courses in psychology, social work, and counseling.

GC 567 Marital and Family Therapy

GC 582 Principles and Methods of Community Counseling and Consultation

GC 544 Reality Therapy

GC 561 Death, Dying, and Bereavement

GC 562 Contemporary Psychosocial Issues in Counseling

GC 542 The Facilitation of the Group Experience

GC 536 Psychopharmacology for Non-medical Professionals

SW 415 Social Services in Alcohol and Substance Abuse

SW 435 School Social Work

Students should consult with their academic adviser and

state licensing requirements when choosing an appropriate elective.

Student Personnel Work in Higher Education

Admissions Requirements for Higher Education Student Affairs

- A bachelors degree in psychology or a related field which includes at least one of the following courses: General Psychology, Abnormal Psychology, and Developmental Psychology.
- A 2.8 undergraduate GPA.
- A composite score of 1000 on the quantitative and verbal parts of the GRE General Test.
- Three letters of recommendation, at least one of which should be from a supervisor who has knowledge of the applicants aptitude for the higher education/counseling profession and counseling related experience.
- Applicants must have successful experience in a counseling capacity or related experience in higher education.
- All applicants will be required to interview with a faculty member.
- A completed application, including a three hundred word personal statement that explains, based on previous experience, why a student is selecting a career in higher education/counseling.

This 48 credit hour program is designed for those students interested in careers in higher education

**to be taken within the first 15 credits*

Higher Education/Student Affairs: Sample Program (48 credit hours)

*GC 510 The Counseling Function in School, Agency and Community, and Higher Education Settings (3 crs.)

*ED 530 Research Methods (3 crs.)

*GC 528 Counseling and Development (3 crs.)
(formerly GC 530)

*GC 529 Multicultural Counseling (3 crs.)

GC 532 Psychological Assessment (3 crs. (formerly GC 533)

GC 535 Applied Counseling: Adolescent-Adult (3 crs.)

GC 539 Career Information and Placement (3 crs.)

GC 538 Theory and Practice of Group Interaction (3 crs.)

GC 551 Student Personnel Work in Higher Education

GC 560 Topics in Higher Education

GC 592 Internship in Higher Education (9 crs.)

GC 504 Research and Evaluation II (3 crs.)

Two electives (3 credits each)

Electives must be graduate level courses approved by the

Secondary Education & Professional Programs

student's adviser. Students may consider the courses below or other courses in psychology, social work, and counseling.

- GC 568 Psychopathology
- GC 534 Legal and Ethical Issues in Counseling
- GC 582 Principles and Methods of Community Counseling and Consultation
- GC 544 Reality Therapy
- GC 561 Death, Dying, and Bereavement
- GC 562 Contemporary Psychosocial Issues in Counseling
- GC 542 The Facilitation of the Group Experience
- SW 415 Social Services in Alcohol and Substance Abuse
- SW 435 School Social Work

Students should consult with their academic advisors when choosing an appropriate elective.

Students following this program will not be eligible for licensure or certification.

Post Masters Program

The post masters program is designed only for individuals who possess a degree in counseling or a related field who seek certification as a school counselor. Each program of study is planned with a faculty adviser.

Admissions Requirements for Post Masters Program

- A master's degree in counseling, clinical psychology or social work is required.
- A 3.25 cumulative average in the master's program.
- Three letters of recommendation, at least one of which should be from a supervisor who has knowledge of the applicant's aptitude for the counseling profession.
- Applicants must have successful experience in a counseling capacity.
- Applicants seeking certification must complete at least 50% of the required coursework at BSC as required by the School of Education and Allied Studies.
- Final applicants will be required to interview with a faculty member.
- A completed application including a three hundred word personal statement that explains, based on previous experience, why a student is selecting a career in counseling.

Educational Leadership

Program Coordinator: Dr. Joanne Newcombe

Master of Education in Educational Leadership

The Master of Education in Educational Leadership program

(M.Ed.) is designed to prepare students for the following positions in school administration:

- Supervisor/Director (all levels)
- Administrator of Special Education (all levels)
- School Business Administrator (all levels)
- Elementary School Principal (Pre-K-6)
- Middle School Principal (5-9)
- High School Principal (9-12)
- Superintendent/Assistant Superintendent (all levels)

These programs have been approved for certification purposes by the Massachusetts Department of Education. This includes certification reciprocity with signatory states under the Interstate Certification Compact.

Only candidates who possess an appropriate initial certificate and who have had one year's employment under that certificate will be considered for acceptance into the program. Documentation of this must be on file with the Graduate School.

Upon completion of their program option, students seeking Massachusetts certification must possess an appropriate Massachusetts initial certificate and have had three years of employment in the role covered by that certificate.

All accepted students must enroll under the direction of their adviser in GP 501 Graduate Program Planning, which is described under "Graduate Advisers and Program Planning" in the *Graduate School* section of this catalog.

A minimum of thirty-six approved graduate credits is required in this degree program. It should be understood that those who anticipate preparing for some of the above positions, such as a superintendency, should plan to do graduate work beyond the minimum.

Applicants are required to enroll in or have completed SA 510 Seminar on Educational Leadership for the Future (SELF) prior to admission to this program.

Students may choose one of eight program options: supervisor/director (various levels), administrator of special education (all levels), school business administrator (all levels), elementary school principal (Pre-K-6), middle school principal (5-9), high school principal (9-12), or superintendent/assistant superintendent (all levels). As part of their chosen program option, students must satisfactorily complete the following curriculum:

Provisional Certification with Advanced Standing

1. SA 510 Seminar on Educational Leadership for the Future (prior to admission) (3 crs.)

*School of Education & Allied Studies***2. Pre-practicum Requirements (including four field experiences):**

- A. Research Methods and Findings: SA 530 Research Applications for School Leaders (3 crs.)
- B. Humanistic and Behavioral Studies: SA 570 Contemporary Issues in School Administration (3 crs.)
- C. Equity and Diversity: SA 579 Diversity for School Leaders (3 crs.)
- D. Supervision, Evaluation, and Development of Personnel and Programs: SA 564 Selection and Development of Educational Personnel (3 crs.)
- E. Human Relations, Communications, and Public Relations in a Diverse Society: SA 567 Human Concerns in the Schools (3 crs.)
- F. Curriculum Design and Evaluation, and Community Education: SA 578 Curriculum Improvement (3 crs.)
- G. Fiscal Planning and Budgeting: SA 565 School Finance and Business Administration (3 crs.)

School business administrator, elementary school principal, middle school principal, high school principal, and superintendent/assistant superintendent program options only:

- H. School Law and Labor Relations: SA 569 Legal Aspects of Educational Administration (3 crs.)

Superintendent/assistant superintendent option only:

- I. SA 591 Seminar in School Administration: the Superintendency (3 crs.)

School business administrator only:

- J. AF 511 Principles of Finance for School Business Administration
- K. AF 510 Accounting for School Business Managers

3. Practical Application - one of the following three courses:

- SA 561 Elementary School Administration (3 crs.)
(degree requirement for elementary school principal (N-6) program option)
- SA 563 Middle School Administration (3 crs.)
(degree requirement for middle school principal (5-9) program option)
- SA 562 High School Administration (3 crs.)
(degree requirement for high school principal (9-12) program option)

4. SA 572 Technology for School Administrators (3 crs.)**5. Practicum or Internship (one of the following courses):**

- SA 580 Practicum in Administration of Special Education (6 crs.)
- SA 582 Practicum in School Business Administration (6 crs.)
- SA 583 Practicum in Supervisorship and Directorship (6 crs.)
- SA 584 Practicum in Elementary School Principalship (6 crs.)
- SA 585 Practicum in Middle School Principalship (6 crs.)
- SA 586 Practicum in High School Principalship (6 crs.)
- SA 587 Practicum in Superintendency and Assistant Superintendency (6 crs.)
- SA 590 Administrator of Special Education Internship (6 crs.)
- SA 592 School Business Administration Internship (6 crs.)
- SA 593 Supervisor and Director Internship (6 crs.)
- SA 594 Elementary School Principal Internship (6 crs.)
- SA 595 Middle School Principal Internship (6 crs.)
- SA 596 High School Principal Internship (6 crs.)
- SA 597 Superintendent/Assistant Superintendent Internship (6 crs.)

Candidates for the master's degree will not be required to complete an internship or practicum if they are not seeking certification.

Upon completion of their program option, students seeking Massachusetts certification must possess an appropriate initial certificate and have had three years of employment in the role covered by that certificate. This must be documented in order to become certifiable.

M.Ed. comprehensive examinations are given by the committee during the months of November and March only. Students should consult the college calendar in this catalog for examination request deadlines.

Standard Certification (6 credit hours)

One of the following:

- SA 540 Educational Leadership Clinical Experience: Administrator of Special Education
- SA 542 Educational Leadership Clinical Experience: School Business Administrator
- SA 543 Educational Leadership Clinical Experience: Supervisor/Director
- SA 544 Educational Leadership Clinical Experience: Elementary School Principal
- SA 545 Educational Leadership Clinical Experience: Middle School Principal

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- SA 546 Educational Leadership Clinical Experience:
High School Principal

For additional information relative to this program, students not yet accepted should consult with the coordinator of the program.

Certificate of Advanced Graduate Study (CAGS)

Graduate students who hold a master's degree in a field of education and who are seeking further study in educational leadership may pursue the Certificate of Advanced Graduate Study (CAGS) program. This program is designed to enable the student to:

1. Take educational initiatives by encouraging innovation, planning and implementing strategic change, and having the self-confidence to be a risk-taker.
2. Analyze and prioritize problems by acquiring and interpreting key information and by resisting premature judgments.
3. Build and maintain teams for continuous improvement of teaching and learning by communicating expectations and by developing and empowering others.
4. Expand learning opportunities for all constituencies by having and advocating a need to be a life-long learner.

Program Description

The CAGS in Educational Leadership is a cohort, weekend program through which students earn 34 credits beyond the master's and may meet state certification requirements for educational leaders through a college-sponsored internship.

In the cohort model, a group of 18-24 students begin the program together and move through it as a group. Class sessions are planned for Friday evening and all day Saturday. Classes are held on six weekends in the fall and spring semesters and for two full weeks in July (Summer II).

Students who complete the CAGS program and wish to pursue a doctoral degree receive an additional benefit. Bridgewater graduates who apply to and are accepted into the doctoral program in educational leadership at UMass-Lowell may apply 24 of the credits earned toward the 60 credits required as part of the doctorate degree.

Admissions Standards and Criteria

Entrance to the program will be determined based upon the following:

1. Masters degree from an accredited college or university

(official transcript required)

2. Three letters of recommendation (one from immediate supervisor)
3. Completed application form
4. Academic certification through Massachusetts Department of Education

Program of Study

The initial courses in this program are designed in part to start students working on their leadership projects – Introduction to CAGS, Research Issues for School Administration, and Systems Planning. The remaining courses are designed to provide a sound knowledge base for practitioners and meet state certification requirements.

1. Content Courses:

- SA 661 Effective School Leadership for Elementary Schools (3 crs.)
- SA 662 Effective School Leadership for Middle Schools (3 crs.)
- SA 663 Effective School Leadership for High Schools (3 crs.)
- SA 664 The Personnel Function of Public Schools (3 crs.)
- SA 665 Fiscal Aspects of School Administration (3 crs.)
- SA 667 Communication Between and Among School Stakeholders (3 crs.)
- SA 669 Concepts and Cases in School Law (3 crs.)
- SA 670 Certificate of Advanced Graduate Study (CAGS) Seminar (3 crs.)
- SA 672 Technology for Administrators (3 crs.)
- SA 675 Research Issues in School Administration (3 crs.)
- SA 677 Systems Planning for Educational Leaders (3 crs.)
- SA 678 Curriculum Development and Program Management (3 crs.)
- SA 681 CAGS Extern (3 crs.)
- SA 682 CAGS Extern II (1 cr.)
- SA 691 The School Superintendency (3 crs.)

2. Practicum or Internship:

- SA 603 Directed Study in School Administration (3 crs.)
- SA 680 Practicum in Administration of Special Education (6 crs.)
- SA 683 Practicum in Supervisorship and Directorship (6 crs.)
- SA 684 Practicum in Elementary School Principalship (6 crs.)
- SA 685 Practicum in Middle School Principalship (6 crs.)
- SA 686 Practicum in High School Principalship (6 crs.)
- SA 687 Practicum in Superintendency and Asst. Superintendency (6crs.)

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- SA 688 Practicum in Directorship of Guidance (6 crs.)
 SA 689 Practicum in Directorship of Pupil Personnel Services (6 crs.)
 SA 690 Internship in Administration of Special Education (6 crs.)
 SA 693 Internship in Supervisorship and Directorship (6 crs.)
 SA 694 Internship in Elementary School Principalship (6 crs.)
 SA 695 Internship in Middle School Principalship (6 crs.)
 SA 696 Internship in High School Principalship (6 crs.)
 SA 697 Internship in Superintendentcy and Asst. Superintendentcy (6 crs.)
 SA 698 Internship in Directorship of Guidance (6 crs.)
 SA 699 Internship in Directorship of Pupil Personnel Services (6 crs.)

Library Media Graduate Program

Program Coordinator: Dr. Mary Frances Zilonis

The Library Media Graduate Program offers the degree of Master of Education in Library Media Studies simultaneously with Massachusetts certification as a Library Media Specialist, Pre-K-12.

Master of Education in Library Media Studies

This is a minimum forty (40) hour graduate program which culminates in the degree of Master of Education in Library Media Studies. The program of studies includes eleven courses of instruction, three pre-practicum field experiences of twenty-five clock hours each, a three credit professional practicum of 150 clock hours (or a six credit internship of 300 clock hours), and a three credit clinical experience of 200 clock hours for those who hold a standard teaching certificate (or a six credit clinical experience of 400 clock hours for students who have the minimum provisional teaching certificate).

A Clinical Research Project is required for the degree, including an oral presentation.

Each student will be required to pass a comprehensive examination prior to being eligible for the Master of Education in Library Media Studies.

All accepted students must enroll under the direction of their adviser in GP 501 Graduate Program Planning, which is described under "Graduate Advisers and Program Planning" in the *Graduate School* section of this catalog.

During Graduate Program Planning the adviser and the student map out the student's course work and the adviser will answer any questions the student may have relative to his/her program.

Completion of this degree program also meets all of the requirements and standards for Massachusetts certification as a School Library Media Specialist (Pre-K-12).

It is also possible to enroll as a post-master's or non-degree candidate for the purpose of obtaining the school library media specialist certification.

Certification: School Library Media Specialist (Pre-K-12)

The Library Media Specialist is a professional who brings people and ideas together through a variety of resources and services selected and organized in the library media center.

The objectives of the Library Media Graduate Program are taken from the national standards, *Information Power*. The objective is to provide courses that will enable graduates to:

- ensure that students and staff are effective users of ideas and information;
- provide intellectual access to information through systematic learning activities which develop cognitive strategies for selecting, retrieving, analyzing, evaluating, synthesizing, and creating information at all age levels and in all curriculum content areas;
- provide physical access to information through (a) a carefully selected and systematically organized collection of diverse resources, representing a wide range of subjects, levels of difficulty, communication formats, and technology delivery systems; (b) access to information and materials outside the library media center and the school building through such mechanisms as inter-library loan, networking and other cooperative agreements, on-line searching of databases through commercial telecommunication services and through the Internet; and (c) providing instruction in the operation of the technology necessary to use information in any format;
- provide learning experiences that encourage users to become discriminating consumers and skilled creators of information through introduction to the full range of communications media and use of new and emerging information technologies;
- provide leadership, instruction, and consulting assistance in the use of instructional and information technology and the use of sound instructional design principles;
- provide resources and activities that contribute to lifelong

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learning, while accommodating a wide range of differences in teaching and learning styles and in instructional methods, interest, and capacities;

- provide a facility that functions as the information center of the school, and as a locus for integrated, interdisciplinary, intergrade, and school-wide learning activities;
- provide resources and learning activities that represent a diversity of experience, opinions, social and cultural perspectives, supporting the concept that intellectual freedom and access to information are prerequisite to effective and responsible citizenship.

Program Requirements

Certification Prerequisite: "Provisional with Advanced Standing" Teaching Certificate (Massachusetts Department of Education) is a minimal requirement.

**Provisional Certification with Advanced Standing
Required Courses and Practicum**

	<i>Credits</i>
ML 501 Administration of the Library Media Center I (Pre-Practicum Field Experience #1)	3
ML 510 Reference and Information Resources	3
ML 515 Cataloging and Classification	3
ML 520 Collection Development	3
ML 530 Administration of the Library Media Center II (Prerequisite: ML 501 or permission of the instructor) (Pre-Practicum Field Experience #3)	3
ML 540 Current Technology for Library Media Centers (Pre-Practicum Field Experience #2)	3
ML 545 Technology Applications in Library Programming (Prerequisite: ML 540 Current Technology)	3
ML 594 Internship (300 clock hours)	6
or	
ML 595 Professional Practicum (150 clock hours)	3

Standard Certification

Required Courses and Clinical Experience

	<i>Credits</i>
ML 525 Online and Optical Information Retrieval (Prerequisite: ML 510 Reference and Information Resources)	3
or	
ML 566 Automating the School Library Media Center (Prerequisite: A basic knowledge of computers)	3
ML 558 Advanced Studies in Literature for Children and Young People (Prerequisite: ML 410 Children's Literature or ML 420 Literature for Young Adults or ML 505 Integrating Literature across the Curriculum or permission of the instructor)	3
ED 530 Research Methods	3

ML 590 Seminar on Librarianship (Prerequisite: ML 510 Reference and Information Resources)	3
ML 596 Clinical Experience — An extension of the practicum experience which also requires the implementation of a practical on-the-job professional research project. This clinical research project is begun in the seminar course and is completed during the Clinical Experience. The Clinical Experience consists of 200 clock hours (3 credits) for those who hold a standard teaching certificate and 400 hours (6 credits) for students who hold the minimum provisional with advanced standing teaching certificate) (Prerequisite: Practicum/Internship)	3-6

The Clinical Research Project is required for the degree, including an oral presentation.

Each student will be required to pass a comprehensive examination prior to being eligible for the Master of Education in Library Media Studies.

The college provides institutional endorsement which enables interstate certification transferability for students who complete the program.

Dual Library Media and Instructional Technology Specialist Certifications

A Library Media Specialist certificate and an Instructional Technology Specialist certificate can be obtained by completing all of the above listed courses required for the Library Media Specialist certificate and by taking four Instructional Technology (IT) courses. The specific courses to be taken will be determined during GP 501 Graduate Program Planning for the additional Instructional Technology Specialist certificate. Library Media Specialists are already required to take a number of technology courses. Their position requires them to stay in the forefront of technology implementation in the schools. These four additional Instructional Technology courses will build upon and extend their already substantial knowledge of technology.

Instructional Technology Graduate Program

Program Coordinator: Dr. Mary Frances Zilonis

The Instructional Technology Graduate Program offers the degree of Master of Education in Instructional Technology simultaneously with Massachusetts certification as an Instructional Technology Specialist, Pre-K-12. (With regard to certification, since this program is new, it is under consideration by the Department of Education at the time of catalog publication.)

School of Education & Allied Studies

Master of Education in Instructional Technology

This is a thirty-seven (37) credit program which culminates in the degree of Master of Education in Instructional Technology. The program of study includes nine core courses of instruction and a minimum of two or three electives depending on the number of credits needed for the Clinical Experience. Students must complete either a three credit clinical experience of 200 clock hours (for those who hold a standard teaching certificate) or a six credit clinical experience of 400 clock hours (for students who have the minimum provisional teaching certificate).

A Clinical Research Project is required for the degree, including an oral presentation.

Each student will be required to pass a comprehensive examination in order to receive the Master of Education in Instructional Technology.

All accepted students must enroll under the direction of their adviser in GP 501 Graduate Program Planning, which is described under "Graduate Advisers and Program Planning" in the *Graduate School* section of this catalog.

It is also possible to enroll as a post-master's or non-degree candidate for the purpose of obtaining the instructional technology specialist certification.

Certification: Instructional Technology Specialist (Pre-K-12)

The Instructional Technology Specialist is a professional who is specially trained in the use of instructional technology and knows how to integrate technology into the curriculum of the classroom. The Instructional Technology Specialist assists others in making the link between ideas, information, curriculum, and technology.

Program Requirements

Certification Prerequisite: "Provisional with Advanced Standing" Teaching Certificate (Massachusetts Department of Education) is a minimal requirement.

Standard Certification

Program Requirements:

	<i>credits</i>
GP 501 Graduate Program Planning	1
IT 510 Teaching and Learning with Technology	3
(Prerequisite: working knowledge of Windows and Macintosh platforms.)	
ED 530 Research Methods	3
IT 511 Technology Applications I	3
(Prerequisite: IT 510)	

IT 512 Technology Applications II	3
(Prerequisite: IT 511)	
IT 513 Current Technology	3
IT 514 Telecommunications and the Internet	3
IT 515 Organization of Instructional Technology	3

Electives - minimum of 2 or 3 electives approved by the adviser.....		6/9
IT 590 Seminar in Instructional Technology	3	
(Prerequisite: ED 530 and a minimum of 21 credit hours in instructional technology)		
IT 596 Clinical Experience in Instructional Technology	3/6	
(Prerequisite: Seminar and acceptance and retention in the Professional Education Program. Satisfactory completion of program requirements, and consent of the Instructional Technology Coordinator.) The Clinical Experience consists of 200 clock hours (3 credits) for those who hold a standard teaching certificate and 400 hours (6 credits) for students who hold the minimum provisional with advanced standing teaching certificate.		

The Clinical Research Project is required for the degree and certification. The oral presentation is required for the degree.

Each student will be required to pass a comprehensive examination prior to being eligible for the Master of Education in Instructional Technology.

The college provides institutional endorsement which enables interstate certification transferability for students who complete the program

Dual Instructional Technology and Library Media Specialist Certifications

An instructional technology specialist certificate and a library media specialist certificate can be obtained by taking GP 501, Graduate Program Planning for the additional Library Media Specialist certification and by taking the following basic library media courses in addition to all of the Instructional Technology Specialist certificate requirements:

GP 501 Graduate Program Planning	
ML 501 Administration of the Library Media Center I	
ML 510 Reference and Information Resources	
ML 515 Cataloging and Classification	
ML 520 Collection Development	
ML 558 Advanced Studies in Literature for Children and Young People	
(Prerequisite: Children's Literature or Literature for Young Adults or permission of the instructor)	

Secondary Education & Professional Programs

Course Offerings*

Secondary Education and Professional Programs

High School

ED 221 Teaching in the Middle School I (3 crs.)

An introduction to teaching in the contemporary middle school. Emphasis is placed on understanding the middle school, e.g., organizational structures, curricula, teacher roles, etc. Developing competencies in effective, understandable and appropriate modes of communication is stressed through micro-teaching and other simulations. Students gain attendant, meaningful experiences through observing, tutoring, or assisting teachers in area middle schools. *Fall semester.*

ED 222 Teaching in the Middle School II (3 crs.)

A continuation of ED 221. Emphasis is placed on further developing an understanding of the middle school and on competencies in effective, understandable and appropriate modes of communication in the classroom. *(Prerequisite: ED 221) Spring semester*

ED 371 Evaluating Teaching and Learning in the Middle School (3 crs.)

Developing competencies in the design and use of evaluative instruments is stressed. Emphasis is placed on using the results of evaluation to improve instruction, problems of interpretation, and correcting for bias. *(Prerequisite: HS 230) Either semester*

ED 475 Arts Infusion Classroom (3 crs.)

This three credit course will explain the theory of multiple intelligences and model strategies to apply this theory in classroom practices through the introduction of the arts. The course is highly interactive and students will participate in activities based on music, movement, visual and dramatic arts. This course is pass/fail. *(Prerequisite: HS 220)*

ED 495 Student Teaching Practicum—Middle School (6 or 12 crs.)

Students are assigned appropriate student teaching stations where they work in an approved situation under an experienced supervising teacher. This is a practical experience for one semester 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 teacher's assignment. Full time for one semester. *(Prerequisite: MS 450-461 and acceptance and good standing in Teacher Preparation program) Either semester*

HS 220 Teaching in the High School (3 crs.)

Introduction to teaching in contemporary high school. Developing competencies in effective, understandable and appropriate modes of communication in teaching is stressed through microteaching and other simulations. Emphasis is also placed on understanding the contemporary high school, e.g. various organizational structures, curricula,

teacher roles, etc. Students gain attendant, meaningful experiences through observing, tutoring or assisting teachers in area high schools. *Either semester*

HS 230 Educational Psychology (3 crs.)

Designed to assist prospective teachers to better conceptualize education from a psychological point of view, the course examines two complementary thrusts in psychology as they relate to the teaching-learning enterprise: (1) developmental psychology and (2) the psychology of individual differences. Emphasis is placed upon understanding the intellectual, emotional, social and moral stages that all learners go through. Stress upon the psychology of individual differences (e.g., different cognitive learning styles, personality differences) promotes more awareness as to how individual learners vary from one another. *Either semester*

HS 240 Classroom Management in the High School (3 crs.)

Study of different approaches to classroom management in the high school. Developing competencies in various approaches to classroom management, including the maintenance of a sense of order, relating to students as individuals and as members of groups, and creating a positive atmosphere, is stressed. Students gain attendant, meaningful experiences through field work in area high schools. *Either semester*

HS 360 Aims and Philosophy of High School Education (3 crs.)

The aims of high school education, its curriculum, structure and teaching strategies are examined using the concepts and methodologies of philosophy. Developing competencies in thinking clearly and rationally in identifying goals and objectives, designing curricula, and selecting materials, media and techniques are stressed. Emphasis is also placed on understanding the philosophical issues embedded in the rational determination of the above, especially as these relate to education in a multi-cultural society. (This course may not be taken for credit by students who have satisfactorily completed ED 480) *Either semester*

HS 370 Evaluating Teaching and Learning in the High School (3 crs.)

Developing competencies in the design and use of evaluative instruments appropriate to the high school. Emphasis is placed on using the results of evaluation to improve instruction, problems of interpretation, and correcting for bias. *(Prerequisite: HS 230) Either semester*

HS 412-430 Strategies for Teaching in the High School (3 crs.)

Strategies, including methods, materials and media for teaching particular disciplines are studied. Developing competency and versatility is stressed through simulations and guided teaching in area high schools. A student registers for the course appropriate to his major according to the following schedule:

HS 412 Social Studies/History

HS 413 Music

HS 414 English

HS 415 Behavioral Sciences

HS 416 Earth Sciences

HS 417 Geography

HS 419 Physical Science

HS 421 Biology

HS 422 Mathematics

HS 424 Foreign Language

HS 425 Art

HS 426 Speech and Theatre

HS 430 Drama

(Prerequisites: HS 230, HS 360, HS 370, FL 324 for HS 424) HS 414 and HS 416-430 fall semester; HS 412 and HS 415 spring semester

* See page 73 for general information regarding course offerings.

School of Education & Allied Studies

HS 440 Methods and Materials in Secondary Education (3 crs.)
Emphasis is on the analysis of teaching in the modern secondary school. Topics will include: the learning process; establishing objectives; classroom organization and management; meeting individual differences; evaluation; correlation between subject matter fields; and recent developments in methodology and subject matter. Offered summers and evenings only. (*Prerequisite: HS 230 or ED 533*)

HS 460 Topics in Secondary Education (3 crs.)
This course is designed for students who desire to study selected topics in this field; it will allow for timely and relevant information to be explored. Topic changes each semester. *Either semester*

HS 490 Student Teaching Practicum—High School (6 or 12 crs.)
Students are assigned appropriate student teaching stations where they work in an approved situation under an experienced supervising teacher. This is a practical experience for one semester 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 teacher's assignment. Full time for one semester. (*Prerequisites: acceptance and good standing in Teacher Preparation program, HS 412-426*) *Either semester*

HS 491 Internship in High School Education (6 crs.)
A minimum of 300 clock hours will be required in a 9-12 grade setting as a high school teacher. Internship must be less than full time but at least 1/5 time employment in the role for which certification will be sought. Request for this course must be made to professional education office. (*Prerequisite: consent of the department*)

HS 499 Directed Study in High School Education (1-3 crs.)
Open to juniors and seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits. (*Prerequisite: consent of the department*) *Either semester*

HS 502 Research (credit to be arranged)
Original research undertaken by the graduate student in his or her field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

HS 503 Directed Study (credit to be arranged)
Designed for the graduate student who desires to study selected topics in a specific field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

HS 545 Curriculum Development for the Academically Talented Student in the Secondary School (3 crs.)
Survey of current curricula status and problems that face the academically talented student. A study of techniques for modifying curricula to meet school, community, and individual needs. An examination of means of evaluation of curriculum's effectiveness. Search for local and regional resources to satisfy the academic needs of the talented.

HS 546 The Internet for Educators (3 crs.)
The course will provide an introduction to telecommunications and the Internet/WWW for educators. Some of the topics to be covered

include e-mail, listservs, telnet, ftp, Netscape, Explorer, and various information search tools, such as gophers, Veronica, the myriad of search engines, WebWhacker and CUCME. In addition to hands-on practice in using the Internet, ethical issues related to responsible use of the Internet and a wide variety of curriculum connections will be explored. As a result of taking this course, students will learn why they should be using the Internet in their schools and classrooms, how to use it, and have a strong beginning sense of where to access information and programs to benefit the teaching and learning process in their schools.

HS 550 Special Topics in Teaching Science (3 crs.)
The course will stress topics of general interest in science education such as computers in science education, laboratory safety, field experiences in science and math anxiety. A series of presentations by guest lecturers will emphasize recent developments in methods and materials used in science and their implementation into the junior high science curricula and will discuss career opportunities. Lectures will be followed by small group discussions. (*Prerequisite: science teaching experience at the pre-baccalaureate level and consent of the instructor*)

HS 560 Special Topics (variable credit)
Special topics of current relevance in education will be offered from time to time. The topic to be addressed will be announced in pre-registration publications. May take more than once with consent of the adviser. (*Prerequisite: Course prerequisites may be specified depending on the nature of the topic.*)

HS 590 Practicum—High School (12 crs.)
Graduate students are assigned appropriate student teaching stations where they work in an approved situation under an experienced supervising teacher. This is a practical experience for one semester in a public school where student teachers are functioning 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 teacher's assignment. Full time for one semester. (*Prerequisite: Acceptance and good standing in Teacher Preparation program, HS 412-430 or HS 440*) *Either semester*

HS 591 Internship in High School Education (6 crs.)
A minimum of 300 clock hours will be required in a 9-12 grade setting as a high school teacher. Internship must be less than full time but at least 1/5 time employment in the role for which certification will be sought. Request for this course must be made to the department and the of student teaching office. (*Prerequisite: consent of the department*)

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Adult Education

AE 505 The Adult Learner (3 crs.)

This course focuses on the adult as learner — his physiological, psychological, sociological, and intellectual characteristics and how they affect learning. Adult learning theory and adult development are explored as a means to understand the adult as learner.

AE 506 Methods and Materials in Adult Learning (3 crs.)

This course is a knowledge and skill building course designed for present and future adult learning/adult education practitioners. It will examine the teaching-learning process in a variety of educational/learning settings. It will explore a variety of instructional methods, techniques, and strategies which are effective in adult learning situations. It will also investigate the materials, devices, and tools used in instructional design and evaluation of adult learning classes, staff development and training opportunities, and related instructional situations.

AE 507 Program Design and Development for Adult Learning (3 crs.)

This course is a knowledge and skill building course for present and future adult learning/adult education practitioners. It will examine the concepts and practices relevant to program design and development in traditional and non-traditional settings. Considerations in program design and procedures utilized in effective program development will be presented and discussed.

Middle School

MS 200 Introduction to Middle School (3 crs.)

Students will study the nature and needs of the early adolescent and develop a rationale for the middle level as a distinct level of education. Through class discussions, readings, field study, and micro-teaching, students reflect on their commitment to middle level education and their potential as teachers in grades 5-9. (20 hours field study minimum)

MS 300 Middle School Preparation I (6 crs.)

Students will analyze and begin to translate theory into effective practice which reflects an understanding of the nature and development of the early adolescent. Class work, self-study and field study will focus on literacy, early adolescent psychology and curriculum and instruction. (20 hours field study minimum) (*Prerequisites: MS 200*)

MS 400 Middle School Preparation II (3 crs.)

Students will continue to analyze and develop effective strategies which reflect an understanding of the nature and development of the early adolescent. Teams will plan and teach an interdisciplinary unit in a middle level school. (20 hours of field study minimum) (*Prerequisites: MS 200 and MS 300*)

MS 440 Middle School Strategies (3 crs.)

Through a study of curriculum (including Curriculum Frameworks) students will learn effective methodology for each discipline. As part of a team students will develop and teach an integrated, thematic unit in a middle level school. (20 hours field study minimum) (*Prerequisites: MS 200, MS 300, and MS 400*)

MS 460 Topics in Middle School Education (1-3 crs.)

Specific topics of current relevance in middle school education will be offered from time to time. The topic to be addressed will be announced in pre-registration publications. This course may be taken more than once with the adviser's permission.

MS 491 Internship in Middle School Education (6 crs.)

MS 491 requires a minimum of 300 clock hours in a 5-9 grade setting as a middle school teacher. This internship must be less than full time but at least 1/5 the time employed in the role for which certification will be sought. A request for this course must be made to the department and the School of Education and Allied Studies. (*Prerequisite: Consent of department*)

MS 450-459, 461 Strategies of Teaching in the Middle School (3 crs.)

Strategies, including methods, materials and media, for teaching particular disciplines are studied. Developing competency and versatility is stressed through simulations and guided teaching in area schools. A student registers for the course appropriate to his major according to the following schedule:

MS 450 Social Studies/History

MS 458 Foreign Language

MS 451 English

MS 459 Art

MS 456 Mathematics

MS 461 Science

(*Prerequisite: HS 230, ED 371*) MS 450 spring semester, MS 451-461 fall semester

School of Education & Allied Studies**MS 495 Middle School Practicum (12 crs.)**

Student teaching is the culminating experience in the middle school program. Students demonstrate their ability to be an effective teacher in this semester long practicum (*Prerequisites: MS 200, MS 300, MS 400, and MS 440*)

MS 499 Directed Study in Middle School Education (1-6 crs.)

This course is open to juniors, seniors and post-baccalaureate students who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. It may be taken twice for a maximum of 6 credits. The adviser's permission is required. (*Prerequisite: Consent of department and a formal application are required*)

MS 502 Research (credit to be arranged)

Original research undertaken by the graduate student in his or her field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

MS 503 Directed Study (credit to be arranged)

Designed for the graduate student who desires to study selected topics in a specific field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

MS 541 Improving Middle School Instruction (3 crs.)

Classroom teachers analyze the nature of the early adolescent (ages 10-14) learner, identify effective middle school practices, and design instruction suited to the unique needs of middle/junior high school students.

MS 542 Current Issues in Middle School Education (3 crs.)

This course will focus on current issues in middle grade education to include: grouping, teaming, diversity, inclusion, technology, articulation with elementary and secondary programs, and other curriculum and instruction programs. Effective practices and programs in area schools will be featured.

MS 560 Topics in Middle School Education – Graduate (1-3 crs.)

Special topics of current relevance in middle school education will be offered from time to time. The topic to be addressed will be announced in pre-registration publications. May be taken more than once with the consent of the student's adviser.

Counseling**GC 502 Research (3-6 crs.)**

Original research undertaken by the graduate student. For details, consult the *Graduate School* section of this catalog for information on independent study.

GC 503 Directed Study (1-6 crs.)

Designed for the graduate student who desires to study selected topics in the counseling field or engage in field work. For details, consult the *Graduate School* section of this catalog for information on independent study. (*Prerequisite: completion of 15 approved graduate credits and acceptance in the Counseling program*)

GC 504 Research and Evaluation II (3 crs.)

The completion of a research project is the main objective of this course, which is designed to facilitate the academic and professional development of the advanced graduate student. This counseling focused research project must be an original work. (*Prerequisite: ED 530*)

GC 510 The Counseling Function in School, Agency/Community and Higher Education Settings (3 crs.)

This course will provide the student with an overview of the varied principles and practices of guidance and counseling. Through a multicultural perspective, the historical roots of the profession, counseling theories, techniques and procedures, and developmental issues will be examined. In addition, the course will review the employment settings of the counseling profession, various counseling specialties, its ethical and legal guidelines, and both current and future issues facing the profession. Central to the course, will be an on-going self evaluation of the students' attitudes, values, interpersonal skills, and motives for choosing counseling as a potential profession. Pre-practicum field component included.

GC 522 Measurement of Intelligence: Stanford-Binet (3 crs.)

Training in the administration, scoring and interpretation of the Stanford-Binet Intelligence Scale. A test kit is necessary. (*Prerequisite: PY 100 and one of the following: EE 420, a statistics course, or GC 533*)

GC 524 Measurement of Intelligence: WAIS-R, WISC-R, and WPPSI (3 crs.)

Training in the administration, scoring and interpretation of the forms of the Wechsler Intelligence Scale. A test kit is necessary. (*Prerequisite: PY 100 and one of the following: EE 420, a statistics course, or GC 533*)

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GC 525 Measurement of Intelligence: Stanford-Binet and Wechsler Scales (3 crs.)

Training in the administration, scoring and interpretation of the Stanford-Binet and Wechsler scales. Access to test kits is necessary. (Prerequisite: PY 100 and one of the following: EE 420, a statistics course, or GC 533 and GC 532)

GC 526 Projective Assessment Techniques I (3 crs.)

A basic training course in the administration, scoring and interpretation of selected projective instruments including the Bender Gestalt, TAT, CAT, HTP and MMPI. Projective aspects of the Wechsler and Stanford-Binet Scales will be emphasized. (Prerequisite: GC 522, GC 524 or GC 525)

GC 527 Projective Assessment Techniques II (3 crs.)

An in-depth experience utilizing a case-study approach in the implementation of battery testing. Advanced techniques utilizing the Bender Gestalt and TAT as well as an introduction to the Rorschach will be included. (Prerequisite: GC 526 or consent of the instructor)

GC 528 Counseling and Development (3 crs.)

This course will examine counseling theory and practice in the context of human development, diversity, and culture. Diversity will be broadly defined and include, but not be limited to ethnic, racial, and cultural diversity, gender, SES, and sexual orientation. The major counseling theories will be examined with respect to their underlying value systems and related compatibility with mainstream and nonmainstream populations, their perspective on human development, and clinical application. Although primary course emphasis will be on the individual, secondary focus will be on ecological/system approaches and prevention strategies. (Prerequisite GC 510)

GC 529/PY516 Multicultural Counseling (3 crs.)

This skill based course will further develop the students' working knowledge and basic competency in multicultural counseling theory and application. To this end, the course will focus on the counselor on both a professional and personal level. Additionally, the course will examine salient and population specific issues related to the life experiences of the culturally "different" client and how such experiences impact on the counseling relationship and process. Underlying values and assumptions associated with widely used traditional counseling interventions and their appropriateness with nonmainstream populations will be explored. Traditional and nontraditional culturally consonant counseling approaches will also be discussed. (Prerequisites: GC 510 and GC 528)

GC 531 Organization and Administration of Guidance Programs (3 crs.)

Administrative skills required in needs assessment, program design and evaluation of effectiveness will be emphasized. Current laws and regulations will be reviewed and sources of funding explained. Students will develop research and communication approaches to respond appropriately to social, economic and political demands within a school or agency setting. (Prerequisite: GC 510)

GC 532 Psychological Assessment (3 crs.)

This course will examine the basic principles and components of individual and group psychological assessment. The student will be in-

troducted to the most commonly used assessment tools and practices for measuring intelligence, achievement, aptitude and interest, and personality. In this regard, the student will become acquainted with the critical issues and procedures related to the administration, scoring, and interpretation of individual and group tests. Test score interpretation and report writing within counseling, ethical and multicultural contexts will be emphasized. Critical issues related to the utilization of traditional tools with nonmainstream populations will also be explored. Pre-practicum field component included. (Prerequisite: PY 100, GC 510, GC 528, GC 529 and one of the following: EE 420, PY 404, or a statistics course)

GC 534 The Professional Counselor: Standards, Ethics, and Legal Issues (3 crs.)

This course will examine current trends in the area of ethical and legal standard for practice that directly affect the professional counselor, as well as the process of ethical decision-making. Federal and state legislation dealing with confidentiality, duty to warn, neglect and abuse, sex discrimination, family rights, and special education will be among the topics to be studied. Ethical standards of the American Counseling Association and the American Psychological Association will be reviewed and discussed. Guidelines and competencies for working with multicultural and other special populations will also be examined. (Prerequisite: GC 528)

GC 535 Applied Counseling: Adolescent-Adult (3 crs.)

Developmental issues, diagnostic techniques and individual and group counseling strategies appropriate for use with adolescents and/or adults will be addressed. Report writing, referral and consultation procedures and current trends will be studied. Pre-practica (5-12) field component included. (Prerequisite: GC 528, GC 529)

GC 536 Applied Counseling: Pre-Adolescent (3 crs.)

Developmental issues, diagnostic techniques and individual and group counseling strategies appropriate for use with pre-adolescents will be addressed. Report writing, referral and consultation procedures and current trends will be studied. Pre-practica (Pre-K-9) field component included. (Prerequisite: GC 528 and GC 529)

GC 537 The Counseling Process (3 crs.)

Course will focus on the relationship, re-orientation and accomplishment phases of the counseling process. Primary readings will be utilized. Interventions and techniques to promote counseling effectiveness will be discussed and practiced. (Prerequisite: Consent of the instructor)

GC 538/PY 518 Theory and Process of Group Interaction (3 crs.)

An examination of the theories and processes of group dynamics and their relationship to counseling philosophy. Special emphasis will be placed on the synthesis of leadership, membership, and purpose, as well as the evaluation of the appropriateness of various group counseling applications.

GC 539/PY 517 Career Information and Placement (3 crs.)

This course will review concepts, issues, and trends in the field of career education. It is designed to consider the role of the counselor in the career decision making process, as well as current issues in the facilitation of career decisions for women, men, couples, and "minor-

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ity" persons. Topics will include, but may not be limited to, selected theories of career life planning and development, techniques designed to bring about greater awareness of needs, values, interests, and abilities related to career decision-making, and a range of techniques counselors may choose to facilitate work with clients. Pre-practicum field component included. (Prerequisite: GC 510, GC 528 and GC 529)

GC 542/PY 519 The Facilitation of Group Experience (3 crs.)

An introduction to the concepts and practices of facilitating various types of group experiences. A number of leadership methods will be presented, and each participant will experience a leadership role under controlled circumstances. (Prerequisite: GC 538 or consent of the instructor)

GC 544 Introduction to Reality Therapy (3 crs.)

Course is designed to bring about an awareness and an understanding of the philosophy and basic concepts of reality therapy. Activities will enhance opportunity to experience reality therapy as a technique for counseling. (Prerequisites: GC 510, GC 528 and GC 529)

GC 545 Counseling from an Existential-Humanistic Perspective (3 crs.)

An examination of the philosophy of existentialism with particular emphasis on its relevance to counseling. Topics include the existential crisis, authenticity, resistance, the role of the counselor, the self, anxiety and choice. (Prerequisites: GC 510, GC 528 and GC 529)

GC 546 Parent and Family Counseling (3 crs.)

An introduction to parent and family therapy theory and technique. Role-playing and viewing videotapes of sessions will aid participants in mastering the material. (Prerequisites: GC 510, GC 528 and GC 529)

GC 548 Advanced Applied Counseling Pre-Practicum Experience: Adolescent-Adult (3 crs.)

This didactic seminar is designed to provide the advanced counseling student with an opportunity to further examine and apply counseling practice with adolescents and adults through an intensive pre-practicum field experience. During this time, students will actively work with clients in the role of counselor. Emphasis will be placed upon the application of counseling techniques to the adolescent/adult population and the further refinement of a student's personal counseling style and self-awareness. Maximum use of audio/video tape, role-play and observation will be made. Moreover, overarching issues such as multiculturalism, human development, technology, and context (i.e. urban, rural, suburban) will be integrated throughout the seminar and seminar field components included. (Prerequisite: GC 535 and a field experience application approved by the program coordinator)

GC 549 Advanced Applied Counseling Pre-Practicum Experience: Pre-Adolescent (3 crs.)

This didactic seminar is designed to provide the advanced counseling student with an opportunity to further examine and apply counseling practice with pre-adolescents through an intensive pre-practicum field experience. During this time, students will actively work with clients in the role of counselor. Emphasis will be placed upon the application of counseling techniques to the pre-adolescent population and the further refinement of a student's personal counseling style and self-awareness. Maximum use of audio/video tape, role-play and observation

will be made. Moreover, overarching issues such as multiculturalism, human development, technology, and context (i.e. urban, rural, suburban) will be integrated throughout the seminar and seminar field components included. (Prerequisite: GC 536 and a field experience application approved by the program coordinator)

GC 551 Student Personnel Work in Higher Education (3 crs.)

An intensive introduction to the literature of student personnel and student development. Basic concepts, philosophies and current models, practices and issues in the field will be studied. (Prerequisite: GC 510, GC 528 and GC 529)

GC 553 Seminar in College Admissions (3 crs.)

An introduction to the matters related to the transition of students to higher education. Specifically designed to allow the individual to experience and procure the necessary background to function as a secondary school or college admissions counselor. (Prerequisite: GC 510, GC 528 and GC 529)

GC 554 Internship—School Guidance Counselor (Pre-K-9) (6 crs.)**GC 555 Internship—School Guidance Counselor (5-12) (6 crs.)**

An internship (GC 554 or GC 555) is less than full-time but at least one-fifth time employment in the role of school guidance counselor at the level of the certificate desired. An internship includes a minimum of 300 clock hours at the practicum site. **This internship will no longer fulfill the requirements for certification by the Department of Education effective October 1, 1994.** Students must register with the program coordinator by May 15 for the fall semester internship, or by October 15 for the spring semester internship. (Prerequisite: 30 graduate credits in the Counseling program, including all department core requirements, documentation of three appropriate pre-practicum field experiences, and a half practicum or consent of the program coordinator)

GC 556 Practicum—School Guidance Counselor (Pre-K-9) (6 crs.)**GC 557 Practicum—School Guidance Counselor (5-12) (6 crs.)**

A practicum (GC 556 or GC 557) must be completed in the role of school guidance counselor, at the level of the certificate desired. A full practicum includes a *minimum* of 300 hours at the practicum site, and a half practicum includes a *minimum* of 150 hours. **This practicum will no longer fulfill the requirements for certification by the Department of Education effective October 1, 1994.** Students must register with the program coordinator by May 15 for the fall semester practicum, or by October 15 for the spring semester practicum. (Prerequisite: 30 graduate credits in the Counseling program, including all department core requirements and documentation of three appropriate pre-practicum field experiences or consent of the program coordinator)

GC 558 Practicum—Agency Counselor (6 crs.)**GC 559 Practicum—College Student Personnel (6 crs.)**

Candidates must complete a minimum of a 150 clock hour practicum within one calendar year in a role and at a site approved by the coordinator of the Counseling program. Students must register with the program coordinator by April 15 for the fall semester practicum and by October 15 for the spring semester practicum. (Prerequisite: 30 graduate credits in the Counseling program including all department requirements, documentation of appropriate field experience, and a field experience application approved by the program coordinator)

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GC 560 Special Topics in Counseling (3 crs.)

Special topics of current relevance in counseling will be offered from time to time. The topic to be addressed will be announced in pre-registration publications. May be taken more than once with the consent of the adviser. (Prerequisite: GC 510, GC 528/530, GC 529)

GC 561 Death/Dying/Bereavement Counseling (3 crs.)

Introduction to the theory and application of grief work principles as they apply to adults, children, and families, as well as others who are indirectly impacted. Emphasis will be on grief counseling, rather than grief therapy and will focus primarily on the "bereaved". The course will stress the importance of counselor self awareness around this loaded area and counselor impact on the therapeutic process. At the core of all course will be a respect for the "client" and the larger world from which he or she comes, a recognition of the importance of culture and other critical intervening factors on the counseling and grief process, and the maintenance of high ethical standards. (Prerequisite: GC 510, GC 528, GC 529)

GC 562 Contemporary Psychosocial Issues in Counseling - Assessment and Strategies (3 crs.)

This course will focus on contemporary issues confronting the professional counselor in educational, agency, and community settings. Such cutting edge issues may include, but not be limited to, substance abuse, AIDS/HIV, childhood, adolescent, and adult trauma such as sexual and physical abuse, domestic violence, and PTSD, teen pregnancy/parenthood, and human sexuality. The advanced counseling student will become acquainted with the current research on each area, and will be actively encouraged to explore his own feelings about the issues and the predominate populations served. Traditional and non-traditional intervention strategies will also be explored. (Prerequisite: GC 510, GC 528, GC 529)

GC 563/PY 513 Psychopharmacology for Nonmedical Professionals (3 crs.)

This course examines modern drug treatment for mental disorders, including schizophrenia, mania, depression and anxiety. The types of drugs—antipsychotic, antidepressants, antianxiety, and sedative-hypnotics—are discussed in conjunction with diagnostic factors, effectiveness, side effects, risk, and biological actions. Psychotherapeutic and ethical concerns are considered.

GC 564/PY 520 Theories of Development (3 crs.)

This course will contrast and compare the major models of development: cognitive-structural, psychoanalytic, and behaviorist, with special emphasis on their prior assumptions and research strategies. Works of Piaget, Werner, Freud, Erikson, Skinner, Spence, and others will be examined. (Prerequisite: GC 510, GC 528, GC 529)

GC 565/PY 525 Cognitive Development (3 crs.)

The development of the cognitive processes, including perception, language, intelligence, and memory. Throughout the life cycle the major focus will be on the growth of basic systems and strategies for representing information symbolically. The work of cognitive theories such as Berlyne, Bruner, and Piaget will be considered. (Prerequisite: GC 510, GC 528, GC 529)

GC 566/PY 526 Childhood Psychopathology (3 crs.)

The nature, etiology, consequences and prevention of the major emotional disorders of children, considered from a developmental viewpoint. Areas include emotional problems of normal children as well as serious psychopathology. Primary emphasis is on psychological factors responsible for deviance. (Prerequisite: GC 510, GC 528, GC 529)

GC 567/PY 543 Marital and Family Therapy (3 crs.)

This course is an examination of the treatment strategies for marital and family systems. Attention will be given to: 1) History and development of marital family therapy; 2) Current schools of therapy; 3) Strategies of invention; 4) The role of the therapist in marital and family work; 5) Professional standards for marital and family therapy. (Prerequisite: GC 510, GC 528, GC 529)

GC 568/PY 575 Psychopathology (3 crs.)

An examination of the classification, symptoms, and treatment of the types of psychopathology listed in the DSM III-R or its revisions. Special focus will be given to differential diagnosis issues and intervention strategies. (Prerequisite: matriculated on Counseling Program and GC 510, GC 528, GC 529)

GC 569 Internship-School Guidance Counselor (Pre-K-9) (9 crs.)

GC 570 Internship-School Guidance Counselor (5-12) (9 crs.)

An internship (GC 569 or GC 570) is less than full time but at least one-fifth time employment in the role of school guidance counselor at the level of the certificate desired. An internship includes a minimum of 450 clock hours at the practicum site. Students must register with the program coordinator in May for the fall semester internship or by October for the spring semester internship. This course fulfills the revised Department of Education internship requirements for School Guidance Counselor certification effective October, 1994. (Prerequisite: 36 graduate credits in the Counseling program, including all department course requirements, documentation of 75 prepractica hours, prior to beginning their internship experience, a half practicum or consent of the program coordinator, and a field experience application approved by the program coordinator.)

GC 571 Practicum - School Guidance Counselor (Pre-K-9) (9 crs.)

GC 572 Practicum - School Guidance Counselor (5-12) (9 crs.)

A practicum (GC 556 or GC 557) must be completed in the role of school guidance counselor, at the level of the certificate desired and at a site approved by the coordinator of the Counseling program. A practicum includes a minimum of 450 clock hours at the practicum site; 50 hours will be subtracted for each year employed in the role of certification up to a total of 150 hours. The student must have completed 75 prepractica hours, prior to beginning their practicum experience. Students must register with the program coordinator in April for the fall semester practicum or by October for the spring semester practicum. This course fulfills the revised Department of Education practicum requirements for School Guidance and Counselor certification effective October, 1994. (Prerequisite: 36 graduate credits in the Counseling program, including all department course requirements and documentation of completed 75 prepractica hours, prior to beginning their practicum experience and a field experience application approved by the program coordinator)

GC 573 Internship: Mental Health Counselor (9 crs.)

Candidates must complete a minimum of a 450 clock hour internship

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in a role and at a site approved by the coordinator of the Counseling program. Students must register with the coordinator in May for the fall semester internship and in October for the spring semester internship. **Students seeking licensure must have 100 practicum (pre-internship) hours of counseling prior to beginning their internship and the internship must also be 600 clock hours in length while meeting all current licensing requirements for internship (CMR 262).** *(Prerequisite: 36 graduate credits in the Counseling program, including all department course requirements, GC 576, and a field experience application approved by the program coordinator.)*

GC 575 Practicum - School Social Worker/School Adjustment Counselor (3 crs.)

Students must complete a 900 hour supervised field experience in the role of, and supervised by, a School Social Worker/School Adjustment Counselor. Each student must demonstrate understanding and application of the competencies for the certificate as shown in the student's clinical skills displayed during the field experience. Each field experience must include interaction with the juvenile justice system. Students must register with the program coordinator by April for the fall semester and October for the spring semester. *(Prerequisite: 36 graduate credits in the Counseling Program and a field experience application approved by the program coordinator.)*

GC 576 Advanced Applied Counseling: Practicum Experience (3 crs.)

This didactic seminar is designed to provide the advanced counseling student with an opportunity to further examine and apply counseling practice with children, adolescents, and adults through an intensive practicum field experience. During this time students will actively work with clients in the role of counselor. Emphasis will be placed upon the application of counseling techniques and the further refinement of a student's personal counseling style and self-awareness. Maximum use of audio/videotape, role play, and observation will be made. Moreover, overarching issues such as multiculturalism, human development, technology, and context (i.e. urban, rural, suburban) will be integrated throughout the seminar and seminar field components included. Students must adhere to all current licensing requirements for practica (CMR 262). *(Prerequisite: GC 535 or GC 536 and a field experience application approved by the program coordinator.)*

GC 580 Post-Master's Clinical Experience: School Guidance Counselor (Pre-K-9) (9 crs.)

GC 581 Post-Master's Clinical Experience: School Guidance Counselor (5-12) (9 crs.)

This course is a 600 hour field experience for professional counselors who have been provisionally certified by the Massachusetts Department of Education for at least one year (with advanced standing) as a school guidance counselor and are seeking standard certification. Building upon completed course work and field experience each student will have the opportunity to further master and demonstrate advanced counseling skills in the role of a professional school guidance counselor. Emphasis will be placed upon the theory and application of advanced counseling techniques to a variety of clients based upon competencies as identified in Standards I-V. Moreover, issues such as multiculturalism, human development, technology, and context (i.e. urban, rural, suburban) will be integrated throughout this seminar. *(Prerequisite: A field experience application approved by the program coordinator.)*

GC 582 Principles and Methods of Community Counseling and Consultations (3 crs.)

This course will explore the wide variety of factors in society and the community that effect the well being of the client in school, agency/community, and higher education settings. Emphasis will be on addressing human problems through community counseling and consultation within a framework of professional standards and equity. Topics include: consultation, referral, program development, intervention strategies, general systems theory, community counseling, person/environment "fit", and action/evaluation research. *(Prerequisite: at least 15 credits in Counseling)*

GC 590 Internship I: Mental Health Counselor (6 crs.)

This internship is for students interested in a license as a mental health counselor. Students must complete at least 300 (of a total of 600) hours at a site approved by the coordinator of the Counseling program. **All internship sites must conform to current licensing law including having an approved on-site supervisor as defined by the Board of Registration for a licensed mental health counselor (see 262 CMR).** Students must register with the coordinator in April for the fall semester internship and in October for the spring semester internship. The internship must be approved by a faculty adviser before it is submitted to the graduate coordinator. This course is followed by GC 591 to complete the 600 clock hours in length while meeting all current licensing requirements for internship (CMR 262) *(Prerequisite: 36 graduate credits in the Counseling program, including all department course requirements, GC 576, and a field experience application approved by the academic adviser and the program coordinator.)*

GC 591 Internship II: Mental Health Counselor (6 crs.)

This internship is for students interested in a license as a mental health counselor and continuing from a site approved in GC 590. Students must complete a second block of at least 300 hours to complete a 600 hour internship at a site already approved. Again, this course is only available for students who have completed GC 590. *(Prerequisite: successful completion GC 590)*

GC 592 Internship in Higher Education/Student Affairs (9 crs.)

This internship is for students enrolled in the higher education track of the counseling program. Students must complete at least 450 hours at a site approved by student's academic adviser and the coordinator of the Counseling program. Students must register with the coordinator in April for the fall semester internship and in October for the spring semester internship. The internship must be approved by a faculty adviser before it is submitted to the graduate coordinator. *(Prerequisite: 30 graduate credits in the Counseling program, including all department course requirements, and a field experience application approved by the academic adviser and the program coordinator.)*

Secondary Education & Professional Programs

Educational Leadership

SA 502 Research (credit to be arranged)

Original research undertaken by the graduate student in his or her field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

SA 503 Directed Study (3 crs.)

Designed for the graduate student who desires to study selected topics in a specific field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

SA 510 Seminar on Educational Leadership for the Future (3 crs.)

This course is the first course in the M.Ed. program in Educational Leadership. To be admitted to the program, students must have completed this course or be concurrently enrolled. As an introductory course, one of the primary goals is to introduce students to major concepts and program strands that are developed in depth in subsequent courses. These include leadership theory applied to the educational setting, the nature of organizations, and key leadership skills such as decision making, team building, empowering others, and fostering collaboration. Students will also begin their study of the change process, the dynamics of effective group process, and ethical issues of school leadership. Finally, students will be introduced to the M.Ed. program itself and encouraged to reflect on whether being an educational leader is something they really want to do. As part of the process, students will develop personal vision statements.

SA 511 Educational Leadership and Managerial Effectiveness (3 crs.)

This course is designed to introduce prospective school leaders to the theory and practice of systems thinking as it is applied to organizational planning and development issues. School leaders need to know how to assess needs, establish priorities, set goals, allocate resources, and develop and implement strategic plans in order to facilitate effective educational programs and practices. As importantly, they need to develop the ability to involve others in the development, planning and implementation phases of school improvement efforts. Major topics include systems thinking (concepts and strategies) and the principles of total quality management (T.Q.M) applied to the educational setting. The course also examines recent research on key topics.

SA 513 Special Topics in Educational Administration (3 crs.)

Selected and timely topics in the various fields of emphasis pertaining to educational administration. The topics to be addressed will be announced in pre-registration publications. May be taken more than once with the consent of the adviser. (*Prerequisite: at least nine hours in educational administration or consent of the instructor. Additional prerequisites may be specified depending upon the nature of the topic.*)

SA 530 Research Applications for School Leaders (3 crs.)

Future school leaders need to develop a solid foundation of understanding of the role of research in guiding and informing administrative practice and the habits of mind that foster inquiry and the active pursuit of school improvement. In this course students will study the major concepts and strands of research methodology and their applications in the school setting. They will also learn to become skilled

consumers of educational research by reviewing and critiquing current research reports involving school organizational and leadership issues. Finally, each student will develop a research proposal in a formal paper.

SA 540 Educational Leadership Clinical Experience: Administrator of Special Education (6 crs.)

SA 542 Educational Leadership Clinical Experience: School Business Administrator (6 crs.)

SA 543 Educational Leadership Clinical Experience: Supervisor/Director (6 crs.)

SA 544 Educational Leadership Clinical Experience: Elementary School Principal (6 crs.)

SA 545 Educational Leadership Clinical Experience: Middle School Principal (6 crs.)

SA 546 Educational Leadership Clinical Experience: High School Principal (6 crs.)

The clinical experience provides an opportunity for standard certification candidates to integrate content area knowledge, pedagogical theory, and practical experience. The clinical experience will be a minimum of 400 clock hours and include site visits and seminars on campus. The completion of the clinical experience is required for a successful candidate to become certified at the standard level.

SA 561 Elementary School Administration (3 crs.)

SA 562 High School Administration (3 crs.)

SA 563 Middle School Administration (3 crs.)

The application of general principles of school administration to the specific problems of the elementary, middle, or high school. Emphasis is on curriculum development and program evaluation; personnel supervision and evaluation; goal setting, establishing priorities, allocating resources, facilitating the educational process in response to the needs of learners, teachers, and the community; school law; budgeting; plant management; community education; human concerns including dealing in an equitable, sensitive, and responsive manner with students, teachers, parents, and the community. (*Prerequisite: completion of 15 credits applicable to the program*)

SA 564 Selection and Development of Educational Personnel (3 crs.)

Staff selection and development will be studied including theories and techniques of supervision, evaluative procedures to assess the effectiveness of programs and personnel, organizational characteristics of schools and strategies for institutional change, in-service education, and personnel and program planning.

SA 565 School Finance and Business Administration (3 crs.)

A study of the financial support for public schools from local, state, and federal governments. Fiscal planning, budgeting, plant management, state and municipal financing, accounting and purchasing procedures, distribution of supplies and services, transportation, and food service will receive attention.

SA 567 Human Concerns in the Schools (3 crs.)

A study of theory, research, and practice in the area of human relations in the school including public relations; clear and appropriate communication; and equitable, sensitive, and responsive relations with students, teachers, parents, and the community.

School of Education & Allied Studies

SA 568 Seminar in School Administration (3 crs.)

Study and analysis of current problems and issues in school administration. (*Prerequisite: completion of 24 credits applicable to the M.Ed. in School Administration program or, for CAGS students, consent of the instructor*)

SA 569 Legal Aspects of School Administration (3 crs.)

Legal rights, duties and liabilities of school personnel in general relationship to the school committee in Massachusetts will be studied. Intended for administrators, prospective administrators, and classroom teachers interested in the legal aspects of school committees, school property, teaching contracts, labor relations and collective bargaining, tenure, prevention of injury and accidents to students, relationships with parents, and a general survey of educational law cases at the local, state, and national levels.

SA 572 Technology for School Administrators (3 crs.)

New administrative software will be reviewed as each student becomes proficient in the use of a microcomputer. Students will also become familiar with educational uses of interactive television, videodisk and hypercard. Distance learning and cooperative projects will also be addressed.

SA 578 Curriculum Improvement (3 crs.)

Contemporary theories of curriculum design and evaluation are explored. Students are expected to develop an eclectic approach to curriculum improvement based upon those theories and upon contemporary organizational factors, including leadership and management. Material is presented relating to developing community education programs, and to personnel and program planning.

SA 579 Diversity Issues for School Leaders (3 crs.)

This course is designed to assist in the focusing of school administrators and leaders on issues of diversity and assessing how these issues will impact the total school community.

SA 580 Practicum in Administration of Special Education (6 crs.)

SA 582 Practicum in School Business Administration (6 crs.)

SA 583 Practicum in Supervisorship/Directorship (6 crs.)

SA 584 Practicum in Elementary School Principalship (6 crs.)

SA 585 Practicum in Middle School Principalship (6 crs.)

SA 586 Practicum in High School Principalship (6 crs.)

SA 587 Practicum in Superintendent/Assistant Superintendency (6 crs.)

SA 591 Seminar in School Administration: The Superintendency (3 crs.)

Examination of major issues and problems confronting school superintendents. Students will be expected to study the relevant literature pertaining to school administration and prepare scholarly papers for class presentation. (*Prerequisite: completion of 18 hours applicable to M.Ed. in School Administration or CAGS in Education*)

SA 590 Administrator of Special Education Internship (6 crs.)

SA 592 School Business Administrator Internship (6 crs.)

SA 593 Supervisor/Director Internship (6 crs.)

SA 594 Elementary School Principal Internship (6 crs.)

SA 595 Middle School Principal Internship (6 crs.)

SA 596 High School Principal Internship (6 crs.)

SA 597 Superintendent/Assistant Superintendent Internship (6 crs.)

Other approved courses:

SA 511 Educational Leadership and Managerial Effectiveness

SA 515 Contract Administration for Educational Leaders

SA 559 Administration of Community Education Program

SA 560 The American Public School Today

SA 566 School Plant Planning and Administration

SA 570 Contemporary Issues in School Administration

SA 571 Introduction to Theory and Understanding of Group Interaction

SA 573 Innovative Administration Practices in Modern Education

SA 576 Issues for Women Administrators

SA 579 Diversity Issues for School Leaders

CAGS Courses

SA 603 Directed Study in School Administration (3 crs.)

Designed for the graduate student who desires to study selected topics in a specific field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

SA 661 Effective School Leadership for Elementary Schools (3 crs.)

SA 662 Effective School Leadership for Middle Schools (3 crs.)

SA 663 Effective School Leadership for High Schools (3 crs.)

These courses address principles of effective leadership and management for elementary, middle, or high schools. Emphasis is on the role of the principal as an instructional leader and manager of change. Specific topics include goal setting, site based management, and team leadership as well as operational issues involving plant management, scheduling, and fiscal administration.

SA 664 The Personnel Function of Public Schools (3 crs.)

Staff selection and development will be studied in the context of the personnel function of public schools as well as techniques of clinical supervision. In addition, strategies such as peer coaching and microteaching, designed to enable the practitioner to promote effective teaching, will be examined. Students will assess the effectiveness of personnel and staff development program approaches as integral to long range organizational development.

SA 665 Fiscal Aspects of School Administration (3 crs.)

This course deals with all aspects of the financing of public schools in Massachusetts and the implementation of Proposition 2 1/2 and the Educational Reform Act of 1993. Major topics include fiscal planning for technology, capital improvements, and programs and services. Plant management, accounting, purchasing, transportation, food service, and revolving accounts are covered in detail.

SA 667 Communication Between and Among School Stakeholders (3 crs.)

Written and oral communication and interpersonal skills are studied and practiced in detail. Topics include sensitivity to all aspects of the audience, targeting the message, identifying power structures and opinion leaders, and dealing with conflict and stress. The course addresses the articulation of the vision and mission of schools through the development of a communications plan. A range of community relations issues including working with the media, business partnerships, school councils, and parental interactions are covered.

*Secondary Education & Professional Programs***SA 669 Concepts and Cases in School Law (3 crs.)**

Constitutional, statutory, regulatory and contractual aspects of public schools are studied. The procedures and strategies for their development and the political implications of their implementation are discussed and analyzed through case studies. Massachusetts Reform law and the development and implementation, monitoring and revision of school committee policies and procedures are main foci of this course.

SA 670 Certificate of Advanced Graduate Study (CAGS) Seminar (3 crs.)

This course is the first course of the program. A major objective of this course is to challenge each student to examine his/her core values and to articulate a vision of public education for the future. The introduction of major concepts of leadership theory is a second major objective. Students study the changing nature of modern organizations and critical leadership skills, including decision making, team building and the fostering of collaboration in schools. In addition, each student will identify an area of "concern" in his/her district that can become the topic for the required leadership project.

SA 672 Technology for Administrators (3 crs.)

This course will examine the many uses of technology in a school administrative setting. Attention will be given to using several computer software management programs, examining state and federal initiatives and guidelines concerning technology in K-12 education, creating administrative multimedia presentations, and assessing personal strengths and weaknesses in the use of technology in school administrative roles. Discussions concerning the ethical use of technology in an educational setting will help clarify the role of school administrators as leaders in promoting student and faculty awareness of the proper use of information mediums.

SA 675 Research Issues in School Administration (3 crs.)

School leaders have a responsibility to be reflective practitioners and to develop, and instill in others, the habits of mind that foster inquiry and the active pursuit of school improvement. This course has three primary purposes: (1) to foster skillful and discriminating consumers of educational research; (2) to help participants understand the implications of research for school leaders; and (3) to enable each participant to complete first drafts of the Background and Significance and Literature Review of his/her leadership project. In the process, research methodologies and their applications in the school setting will be reviewed.

SA 677 Systems Planning for Educational Leaders (3 crs.)

Successful educational planning and managerial strategies to assess and define needs, establish priorities, set goals, allocate resources, implement plans, and facilitate the instructional process in response to the needs of learners, teachers, and the community are explored. Major topics include systems thinking and planning, and the principles of total quality management applied to the educational setting. Additionally, this course examines recent research on planning and organizational development in education.

SA 678 Curriculum Development and Program Management (3 crs.)

This course focuses on the analysis of factors influencing curriculum design, research, and reform, including the frameworks in Massa-

chusetts, assessment and evaluation. Trends in curriculum theory and leadership role of administrators in curriculum alignment, instrumental planning, and program assessment are major topics.

SA 681 CAGS Extern (3crs.)

All CAGS students must complete a leadership project that combines theory and practice and contributes to the knowledge-base of educational practitioners. This course focuses on the implementation, documentation, and reporting of the student leadership project. Participants, working under the guidance of the instructor, complete their projects and defend them in oral comprehensive examinations.

SA 682 CAGS Extern II (1 cr.)

A continuation of SA681. Students who do not complete their leadership project in SA681 in an academic year will be required to register for SA682 each semester thereafter (fall and spring) until the project is completed. (Prerequisite SA681)

SA 691 The School Superintendency (3 crs.)

This course explores topics related to the school superintendency, including the nature of the role itself, the skills and competencies needed to prosper in it, critical issues facing superintendents and schools, and the dynamics of organizations and perspectives for understanding them.

SA 680 Practicum in Administration of Special Education (6 crs.)**SA 683 Practicum in Supervisorship/Directorship (6 crs.)****SA 684 Practicum in Elementary School Principalship (6 crs.)****SA 685 Practicum in Middle School Principalship (6 crs.)****SA 686 Practicum in High School Principalship (6 crs.)****SA 687 Practicum in Superintendency/Asst. Superintendency (6 crs.)****SA 688 Practicum in Directorship of Guidance (6 crs.)****SA 689 Practicum in Directorship of Pupil Personnel Services (6 crs.)****SA 690 Internship in Administration of Special Education (6 crs.)****SA 693 Internship in Supervisorship/Directorship (6 crs.)****SA 694 Internship in Elementary School Principalship (6 crs.)****SA 695 Internship in Middle School Principalship (6 crs.)****SA 696 Internship in High School Principalship (6 crs.)****SA 697 Internship in Superintendency/Asst. Superintendency (6 crs.)****SA 698 Internship in Directorship of Guidance (6 crs.)****SA 699 Internship in Directorship of Pupil Personnel Services (6 crs.)**

School of Education & Allied Studies

Library Media Studies

ML 102 Introduction to Information Resources (1 cr.)

This course introduces the use of information resources, especially at the Maxwell Library, in order to attain an ability to work with the research tools and to know the services which are available. Satisfies the GER in Locating and Processing Information; must be taken within the first 30 credits at Bridgewater State College. *Either semester*

ML 410 Children's Literature (3 crs.)

This course introduces students to the world of literature for children in various media by means of the required text and other readings, lectures, discussions (small group and class), presentations, simulations and extensive reading of children's books.

ML 420 Literature for Young Adults (3 crs.)

Survey of literature and audio visual materials for adolescents. Includes applicable principles of adolescent psychology, a brief history of the development of this literature, criteria and aids for selection, techniques in motivation and reading guidance, and skills in reading, listening and viewing. Designed for teachers, librarians, and media specialists working with junior and senior high school students. *Spring semester*

ML 453 Sharing Literature with Children (3 crs.)

Traditional and contemporary storytelling, reading aloud, response-centered activities, book talks, book-related film programs based on the concept of sharing as an integral part of a literature program; emphasis on selection, planning, techniques of presentation, e.g., puppets, flannelboard, hook-and-loop, and evaluation. *Either semester*

ML 501 Administration of the Library Media Center I (3 cr.)

An introduction to the philosophy and role of the library media program and of the library media specialist. The content deals with the underlying "why?" of school library media programs. ("How?" is developed in other courses.) The purpose of the course is to provide an understanding of school library media programs and to enable the student to have a clear understanding of the role of the library media specialist and of the library media center in promoting teaching and learning.

ML 502 Research (credit to be arranged)

Original research undertaken by the graduate student in his or her field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

ML 503 Directed Study (credit to be arranged)

Designed for the graduate student who desires to study selected topics in a specific field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

ML 505 Integrating Literature Across the Curriculum (1-3 crs.)

The use of trade books and related forms to support specific grade levels and/or curriculum and/or issues in education. The student will have individual choice of specific issues to be studied including whole language, multicultural and gender. Students will also choose to study resource support for specific subject and grade level areas such as elementary science, middle school math, high school history, health education for all grades, etc.

ML 510 Reference and Information Resources (3 crs.)

Introduction to the basic reference books in all subject disciplines. Bibliographic search assignments give practical application of techniques using all the resources of the library media center. The use of electronic searching will be introduced especially as the selected databases correlate to assigned print reference tools.

ML 513 Special Topics (variable credit)

Special topics of current relevance in Library Media Studies will be offered from time to time. The topic to be addressed will be announced in pre-registration publications. May be taken more than once with consent of the adviser. (Prerequisite: Course prerequisites may be specified depending on the nature of the topic.)

ML 515 Cataloging and Classification (3 crs.)

Includes an analysis of the theory of classification and information systems. Presentation of techniques for print and non-print cataloging with emphasis on Dewey Decimal, Library of Congress, Sears, and Anglo-American Rules. Practical application utilizing automated resources.

ML 520 Collection Development (3 crs.)

Criteria and policies in selection of print and non-print material for reader interest and curriculum enrichment, with emphasis on practical applications and appraisal of bibliographic aids and current review practices.

ML 525 Online and Optical Information Retrieval (3 crs.)

An introduction to the origin and scope of online services and databases with emphasis on hardware, search techniques and strategy. Some attention is given to managing the service and training staff and patrons in the school library media center. (Prerequisite: ML 510)

ML 530 Administration of the Library Media Center II (3 crs.)

Library/media centers and their governing agencies, scientific management principles, organization and operation of the library media center department, personnel problems and procedures, budget preparation, statistics, quarters, and planning. (Prerequisite: ML 501 or permission of instructor)

ML 540 Current Technology for Library Media Centers (3 crs.)

Provides background in the new and emerging technologies stressing the carriers and media necessary to store and circulate information. Some attention will be given to tools and techniques of special interest to school library media services.

ML 545 Technology Applications in Library Programming (3 crs.)

Practical application including program production, of the current technology in school library media functions that reach out to students and teachers. Attention will be given to technical processing and management functions as well as patron services. (Prerequisite: ML 540)

ML 546 The Internet for School Library Media Specialists I (3 crs.)

This course will provide an introduction to telecommunications and the Internet for school library media specialists. Some of the topics to be covered include e-mail, listservs, telnet, ftp, the world wide web, and various information search tools, such as gopher and Veronica. Search engines used to access the world wide web will also be included. In addition to hands-on practice using the Internet, ethical issues res-

Secondary Education & Professional Programs

lated to responsible use of the Internet and a wide variety of curriculum connections will be explored. As a result of taking this course, students will learn why they should be using the Internet in their school library media center, how to use it, and have a strong beginning sense of where to access information and programs to benefit the teaching and learning process in their schools.

ML 548 Advanced Cataloging and Classification (3 crs.)

Theoretical discussion and practical application of techniques in detailed cataloging with emphasis on Library of Congress classification and subject headings. Includes non-book cataloging. (*Prerequisite: ML 515*)

ML 549 Multimedia for School Library Media Specialists (3 crs.)

This course will provide an introduction to multimedia for the school library media specialist. The power of multimedia allows the librarian to be a developer of software or to facilitate students to develop. Focus will be on good multimedia design, the user, and evaluation. Two packages will be featured: HyperCard and HyperStudio. Incorporation of media such as video, sound and graphics will also be covered.

ML 553 Foundations of Library and Information Science (3 crs.)

Form and function of classical, medieval, and scholarly libraries; the public library as the people's university; development of information centers, libraries, and media centers, and their role in contemporary society.

ML 558 Advanced Studies in Literature for Children and Young People (3 crs.)

A seminar format which offers the student an opportunity to explore recent artistic, literary, and social developments in books and media for the young, or for study of particular genres or themes. (*Prerequisite: ML 410 or 420 or ML 505 or consent of the instructor*)

ML 559 Advanced Reference I (3 crs.)

Research methods using specialized reference sources, professional journals, and audio-visual materials, intended for retrospective studies in history, literature, music, philosophy, religion, and the arts. (*Prerequisite: ML 510*)

ML 560 Advanced Reference II (3 crs.)

Research methods using specialized reference sources, professional journals, government documents, microforms, and audio-visual materials, intended for the study of the social and behavioral sciences and services, and pure and applied science and technology, focusing on contemporary materials and topics. (*Prerequisite: ML 510*)

ML 566 Automating the School Library Media Center (3 crs.)

Survey of developments in information retrieval and other library applications of modern procedures in acquisition, circulation, management, and periodical control. (*Prerequisite: a basic knowledge of computers*)

ML 569 The Book Arts (3 crs.)

Traces the development of the written word from the earliest alphabet to today's computerized publishing. The history, art, and science of the book include field study of book production; manuscripts, rare books and bindings; and award-winning books.

ML 576 Research Problems in Library Literature (3 crs.)

Designed for special projects for advanced students desiring individual instruction in the methods of library research. (*Prerequisite: Consent of the program*)

ML 590 Seminar on Librarianship (3 crs.)

Intended as a culminating exercise in administrative librarianship. It will include study and analysis of current problems and issues in library administration. Students will seek solutions to these through reading and research. (*Prerequisite: A minimum of 12 credit hours in Library Science, including ML 510 and ED 530, and consent of the adviser*)

ML 594 Internship (6 crs.)

This graduate level internship involves a minimum of 300 clock hours in a school library media center working as a school library media specialist under appropriate school and college supervision during one semester, either spring or fall. (*Prerequisite: Acceptance and retention in the Professional Education Program, completion of or enrollment in all other courses in the provisional with advanced standing level program, and consent of department.*)

ML 595 Professional Practicum (3 crs.)

This graduate practicum involves observation and participation in all important aspects of school library administration, including selection and organization of materials; references and bibliographic services; curriculum development; and techniques of teaching library media use. This course must be pursued at an approved media center under the supervision of a certified or unified media specialist and a college supervisor. Full time for 150 clock hours. (*Prerequisite: Acceptance and retention in the Professional Education Program, completion of or enrollment in all other courses in the provisional with advanced standing level program, and consent of department.*)

ML 596 Clinical Experience (3-6 crs.)

Three credits, 200 clock hours. Project to be a practical "on-the-job" professional activity in the Library Media Center that will demonstrate, analyze, perfect, provide data, apply principle to the research effort in the seminar course. This activity should assist in the development of the final thesis paper and presentation. Students should submit copies of the following: 1) Clinical Experience Proposal; 2) Research paper from ML 590; and 3) Final Report - Clinical Experience. NOTE: a 6 credit, 400 clock hour clinical experience is required by state regulation for those possessing the minimum provisional with advanced standing teaching certificate. (*Prerequisite: Acceptance and retention in the Professional Education Program, completion of or enrollment in all other courses in the standard level program, and consent of department.*)

School of Education & Allied Studies

Instructional Technology

IT 502 Research (credit to be arranged)

Original research undertaken by the graduate student in his or her field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

IT 503 Directed Study (credit to be arranged)

Designed for the graduate student who desires to study selected topics in a specific field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

IT 510 Teaching and Learning with Technology (3 crs.)

This course is designed to help you explore how instructional technology can be used for teaching/learning. This course has two primary goals: 1) to provoke ideas about ways computers can be used in the school and non-school settings to enhance teaching/learning; and 2) to explore technology as described in the Curriculum Frameworks. (*Prerequisite: working knowledge of Windows and Macintosh platforms.*)

IT 511 Technology Applications I (3 crs.)

Students will continue to explore the application and integration of electronic tools in instructional settings, groupware, electronic assessment tools, and authoring systems to design, produce, and manage instructional and informational materials for use in K-12 settings. Developing and implementing IEPs in a technologically enhanced classroom will also be discussed. An emphasis will be placed on integrating technology into the curriculum with attention given to the Curriculum Frameworks. (*Prerequisite: IT 510 or permission of the instructor.*)

IT 512 Technology Applications II (3 crs.)

This course builds on Technology Applications I. The participant will have the opportunity to further their competencies with 2nd-level applications software (i.e., presentation and multimedia software) and groupware software. Students will explore the current 2nd-level application tools and how they can be used in an educational setting to enhance teaching and learning. This course will have two primary goals: 1) to give students practical experience in using technology to create teaching/learning tools; and 2) to provoke student ideas about technology by providing experiences, readings, and a forum for discussion of major ideas. (*Prerequisite: IT 511*)

IT 513 Current Technology (3 crs.)

Students will explore the new and emerging technologies and construct the philosophical framework for how these technologies can be integrated into K-12 education. The importance of technology planning will be developed.

IT 514 Telecommunications and the Internet (3 crs.)

This course provides an introduction to telecommunications and the Internet. In addition to hands-on practice in using the Internet, ethical and legal issues related to responsible classroom use of the Internet and a wide variety of curriculum connections will be explored.

IT 515 Organization of Instructional Technology (3 crs.)

Procedures for the establishment or continued development of a K-12 Instructional Technology Program will be the focus of this course. Roles and responsibilities, leadership, strategic planning, budget develop-

ment, equity, purchasing, staff development, policy and procedure development related to access, use of networking for effective implementation, critical issues in education and program evaluation.

IT 551 Home Pages for Educators (3 crs.)

This course will provide students with a thorough look at important Web sites for educational use; in-depth skills in effectively utilizing search engine strategies for students; the tools and methodology necessary to create a content-rich Web site for school; effective ways to link the vast resources of the Internet to curriculum content; a multidisciplinary model for Internet curriculum integration; the information and tools needed to critically evaluate a Web page; (students will evaluate the critical elements which must be present to give credibility to a page); strategies for utilizing the Internet and Web page use, construction, and curriculum development as an integral part of curriculum design; the implications of utilizing the Internet and a school's Web page to publish student work; and the background in the moral, legal, and ethical considerations of Internet use and Web page development in the schools and how to translate this knowledge into effective school policy.

IT 552 Multimedia for Educators (3 crs.)

The course will provide an introduction to multimedia. The power of multimedia allows the teacher to be a developer of software or to facilitate student development of software. The focus will be on good multimedia design, the user, and evaluation. Incorporation of media such as video, sound and graphics will also be included.

IT 560 Topics in Instructional Technology (1-3 crs.)

Special topics of current relevance in instructional technology education will be offered from time to time. The topic to be addressed will be announced in pre-registration publications. May be taken more than once with the consent of the student's adviser.

IT 590 Seminar in Instructional Technology (3 crs.)

This course will build on the knowledge obtained in ED 530 Research Methods and all other courses taken toward the degree. Students will examine major issues and problems affecting the successful implementation of instructional technology in K-12 schools. Equity issues will be discussed. Each student will develop and implement a research project pertaining to the implementation/integration of instructional technology into the teaching and learning process in K-12 education. Its purpose is to allow students the opportunity to further pursue topics or areas in which they have considerable interest. (*Prerequisite: ED 530 and a minimum of 21 credit hours in Instructional Technology.*)

IT 596 Clinical Experience in Instructional Technology (3/6 crs.)

During the Clinical Experience, the student is employed in the role of an Instructional Technology Specialist in a Pre-K-12 school setting under appropriate school and college supervisors. If the student is not employed, he/she will be placed full-time in an appropriate school setting under the direction of a qualified practitioner and college supervisor. The Clinical Experience consists of 200 clock hours (3 credits) for those who hold a standard teaching certificate, and 400 hours (6 credits) for students who hold the minimum provisional with advanced standing teaching certificate. (*Prerequisite: Seminar and acceptance and retention in the Professional Education Program, satisfactory completion of program requirements, and consent of the Instructional Technology Coordinator.*)

Secondary Education & Professional Programs

Media

ME 310 Introduction to Instructional Media (3 crs.)

Introduction to instructional media and technology incorporating selection, production, evaluation and utilization of instructional materials. Instruction in application of still pictures, slides, filmstrips, recording, radio, television, and other media. This course is highly recommended for those people involved with training programs in business, industry, and/or education. *Either semester*

ME 315 Media Presentation Skills for Business and Management Training (3 crs.)

This course will help students develop basic media techniques. Instruction will center around the mastery of media presentation skills for those in business, management, and related fields. *Offered once in three years*

ME 320 Sound-Slide Production Techniques (3 crs.)

This course provides an opportunity to learn basic techniques for producing slide-tape productions. Skills include planning presentation, scripting, storyboarding, photographic techniques, and sound recording. These skills are valuable for people in fields such as education, business, advertising, and/or public relations where training or presentation of messages is important. *Offered evenings and summers only.*

ME 412 Communication Theory (3 crs.)

Applies basic concepts of communication to problems related to training and instruction. Modern techniques and applications will be thoroughly discussed and practiced. *Offered evenings and summers only.*

ME 425 Microcomputers in Libraries and Media Centers (3 crs.)

An introduction to the use of microcomputers in media centers and small libraries. This course is designed for those who have little or no background with computers. It is appropriate for media specialists, librarians, students enrolled in the Media Certificate program and others who wish to become computer literate for application to and management of school and business media centers and small libraries. Topics will include the historical development and introduction to the use of programs in BASIC language and an investigation of the required hardware for setting up a computer system. *Fall semester*

ME 440 Advanced Techniques in Instructional Media (3 crs.)

Directed study course. Development of a multi-media package of materials to be used in a training or instructional setting. Materials are produced by the student under the guidance of the instructor. Formerly ME 420. *(Prerequisite: AR 216, 310, 456, 460 or consent of the instructor)*

ME 464 Management of Instructional Media (3 crs.)

The following functions are discussed: personnel, budgeting, purchasing, analysis of materials and equipment, in-service training, curriculum support, and classification and cataloguing of instructional materials. *(Prerequisite: consent of the instructor) Offered evenings and summers only*

ME 498 Internship in Media and/or Librarianship (3-15 crs.)

Offered to advanced undergraduate students who wish to acquire a supervised practical experience within their field of study. (See infor-

mation in this catalog under *Academic Programs* for a more complete description). *(Prerequisite: consent of the department) Either semester*

Other Approved Courses:

ME 459 Advanced Radio and Television Production

ME 502 Research (credit to be arranged)

Original research undertaken by the graduate student in his or her field (i.e. nonprint instructional media). For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

ME 503 Directed Study (credit to be arranged)

Designed for the graduate student who desires to study selected topics in a specific field (i.e. nonprint instructional media). For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

ME 524 Seminar in Instructional Media (3 crs.)

This course is designed to carry out a systematic review and critique of media research literature and to bring about the ability to design and execute a research study pertinent to the field. Selected research and literature will be reviewed and analyzed. *(Prerequisite: EE 420 or consent of the instructor)*

ME 553 School Public Relations (3 crs.)

The necessity for a well-informed public to foster good school public relations. All necessary media will be discussed: radio, television, newspapers, magazines, school publications, teacher-parent and administrator-teacher-parent relationships. Emphasis will be placed on communication theory.

ME 560 Graphics for Media Specialists (3 crs.)

This course is designed for graduate students. It is a course in intermediate graphic skills necessary for producing instructional materials and/or graphics for television. It is particularly intended for the person who is planning to be a media specialist. Course includes instruction in the use of simple mechanical lettering devices; mounting and laminating techniques; diazo and color-lift transparency production; composition and related skills. *(Prerequisite: consent of the instructor)*

ME 584 Administration of Media Programs (3 crs.)

This course is designed for graduate students. It covers the principles and practices of the administration of media programs, particularly from the unified media approach. Areas of study include planning, equipping, servicing, and operation. *(Prerequisite: consent of the instructor)*

ME 595 Professional Practicum and Internship (6 crs.)

Involves observation and participation in all important aspects of administration, including selection and organization of materials; reference and bibliographic services, and techniques of teaching media use. This course must be pursued at a media center approved by the secondary education and professional programs department at Bridgewater and may only be waived, in the case of non-certification students, if the student has had considerable experience as a media specialist in a situation acceptable to the department. *(Prerequisite: completion of, or enrollment in, all other courses of the program)*

Department of Special Education and Communication Disorders

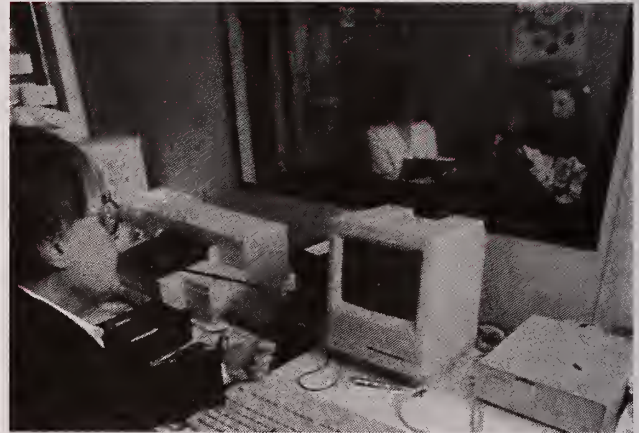
Faculty

Chairperson: Associate Professor Lisa Battaglino

Professors: Tracy Baldrate, Sandra Briggs,
William Murphy, Lidia Silveira

**Associate
Professor:** Sandra Ciocci

**Assistant
Professor:** Jeri Katz



Undergraduate Programs

Bachelor of Science in Education

The Department of Special Education and Communication Disorders offers programs primarily designed to meet the needs of undergraduates who are interested in Massachusetts provisional certification with advance standing as a Teacher of Students with Special Needs (Pre-K-9) or (5-12) and in special education. Students who wish to be special education teachers are required to select a major in special education and a major in the liberal arts or sciences. This program has been approved by the Massachusetts Department of Education and the National Counsel for Accreditation of Teacher Education and includes certification reciprocity with states under the Interstate Certification Compact. Specific information is available from the Department of Special Education and Communication Disorders.

All students planning to pursue a teacher education program of study must apply for admission to and be accepted in the Professional Education Program. Undergraduate students seeking certification must consult the section of this catalog entitled *School of Education and Allied Studies* for information and important institutional deadlines.

Teacher of Students with Special Needs (Pre-K-9) or (5-12)

The following courses are required for students completing certification in Teacher of Students with Special Needs (Pre-K-9) or (5-12).

*SE 202 The Learner with Special Needs in School and Society

SE 206 Special Education in Diverse Society

SE 207 Technology in Special Education

SE 302 Principles and Application of Behavioral Management for the Special Needs Learner

SE 303 Principles and Procedures of Assessment of Special Needs Learners

SE 402 Children with Reading Disabilities: Diagnosis and Teaching Strategies

SE 403 Curriculum Development and Implementation for the Special Needs Learner

SE 404/406 Student Teaching Practicum: Mainstream Program (Pre-K-9) or (5-12)

SE 405/407 Student Teaching Practicum: Special Education Program (Pre-K-9) or (5-12)

Recommended: SE 429 Field Work in Special Education

*To be completed prior to admission to Professional Education and enrollment in upper level special education courses.

Cognates (Pre-K-9)

PY 224 Child Psychology

EE 452 Methods and Materials in Elementary Education

Cognates (5-12)

PY 226 Adolescent Psychology

ED 440 Methods and Materials in Secondary Education or an equivalent methods and materials course that correlates to the student's liberal arts major or level of certification (Middle School, High School, K-12)

*Special Education and Communication Disorders***Teacher of Students with Intensive Special Needs
(All levels)**

Students seeking certification in Teacher of Students with Intensive Special Needs must double major in Special Education and Psychology.

Required courses:

- *SE 202 The Learner with Special Needs in School and Society
- SE 203 Social, Racial and Linguistic Backgrounds of Special Needs Learners
- SE 302 Principles and Application of Behavioral Management for the Special Needs Learner
- SE 303 Principles and Procedures of Assessment of Special Needs Learners
- SE 410 Instructional and Curricula Strategies for Learners with Intensive Special Needs I
- SE 411 Instructional and Curricula Strategies for Learners with Intensive Special Needs II
- SE 412 Student Teaching Practicum: Educational Setting, ISN
- SE 413 Student Teaching Practicum: Alternative Setting, ISN
- CD 290 Language Acquisition and Development
- PE 324 Physical and Motor Development of Individuals with Disabilities

**To be completed prior to admission to Professional Education and enrollment in upper level special education courses.*

Minor in Special Education

- SE 202 The Learner with Special Needs in School and Society
- SE 203 Social, Racial and Linguistic Backgrounds of Special Needs Learners
- or
- SE 206 Special Education in a Diverse Society

Courses from the following to obtain, with the above, a minimum of 18 credits

- SE 207 Technology in Special Education
- SE 302 Principles and Application of Behavioral Management for the Special Needs Learner
- SE 303 Principles and Procedures of Assessment of Special Needs Learners
- SE 402 Children with Reading Disability: Diagnosis and Teaching Strategies
- SE 403 Curriculum Development and Implementation for Special Needs Learners
- SE 410 Instructional and Curricula Strategies for Learners with Intensive Special Needs I
- SE 411 Instructional and Curricula Strategies for Learners with Intensive Special Needs II
- SE 498 Internship in Special Education
- SE 499 Directed Study in Special Education

Communication Disorders Concentration

Effective Fall 1996, the concentration in Communication Disorders has been moved to the Department of Special Education and Communication Disorders. Students who have declared a concentration in Communication Disorders prior to Fall 1996 should refer to the Bridgewater State College Catalog 1995-1996 for degree requirements. For students who have not declared a major or concentration, information can be found in this section of the catalog.

The minimum requirements include:

- SE 203 Social, Racial and Linguistic Backgrounds of Special Needs Learners
- CD 220 Introduction to Communication Disorders
- CD 281 Speech Anatomy and Physiology
- CD 282 Speech and Hearing Science
- CD 290 Language Acquisition and Development
- CD 294 Phonetics
- CD 312 Language Disorders in Children
- CD 313 Articulation Disorders
- CD 351 Introduction to Audiology
- CD 352 Clinical Audiology
- CD 480 Clinical Procedures: An Overview
- One elective chosen from
- CD 325 Voice Disorders in Children and Adults
- or
- CD 393 Aural Rehabilitation

Required Cognates:

- PY 227 Development through the Life Cycle
- EN 323 Introduction to Linguistics

As soon as a student declares Communication Disorders as a concentration, he or she will be screened for adequate speech and language patterns to assure appropriate modeling of speech by therapists. Appropriate recommendations will be made for improvement, which the student will be required to follow if he or she wishes to pursue a Practicum Program Sequence.

Communication Disorders Minor

- CD 220 Introduction to Communication Disorders
- CD 281 Speech Anatomy and Physiology
- CD 282 Speech and Hearing Science
- CD 290 Language Acquisition and Development
- CD 294 Phonetics
- CD 351 Introduction to Audiology

School of Education & Allied Studies

Graduate Programs

Special Education

Graduate Program Coordinator: Dr. Tracy Baldrate

At the graduate level the Department of Special Education and Communication Disorders offers several programs, described below, designed to meet the needs of graduate students.

For information regarding graduate program application procedures and admission standards, students should consult the *Graduate School* section of this catalog.

Students seeking certification should consult the *School of Education and Allied Studies* section of this catalog for information pertaining to professional certification, admission to and retention in Professional Education, as well as institutional deadlines.

Certification Programs in Special Education

These programs are designed for students interested in obtaining Massachusetts certification as a Teacher of Students with Special Needs (Pre-K-9) or (5-12). The programs have been designed in accordance with Massachusetts Department of Education standards and include certification reciprocity with signatory states under the Interstate Certification Compact.

Students without teacher certification seeking provisional certification with advanced standing as a Teacher of Students with Special Needs (Pre-K-9 or 5-12) should refer to Program A below.

Students without teacher certification who wish to obtain provisional certification with advanced standing as a Teacher of Students with Intensive Special Needs should refer to Program B below.

Students with standard certification in another field seeking standard certification as a Teacher of Students with Special Needs (Pre-K-9 or 5-12), but not a master's degree, should refer to Program C below.

Students with provisional certification with advanced standing in special education should refer to Program D below if seeking standard certification in special education and a master's degree.

Students with standard certification in another field should refer to Program E below if seeking standard certification in special education with a master's degree.

Non-Certification Program in Special Education

Students interested in a Master of Education in Special Education degree program which does not lead to certification should refer to Program F below.

Communication Disorders Concentration

Program Coordinator: Dr. Sandra Ciocci

The graduate-level concentration in Communication Disorders (Program G below) prepares the student for a professional career in speech/language pathology. At the time of catalog publication, this program was under review and revision. **Applications will be accepted when the new program is approved. For further information, contact the Communication Disorders program coordinator.**

Program A

Post Baccalaureate Program: Provisional Certification with Advanced Standing - Teacher of Students with Special Needs (Pre-K-9, 5-12)

Students without teacher certification who wish to obtain provisional certification with advanced standing as a Teacher of Students with Special Needs (Pre-K-9) or (5-12) must complete the following courses, in addition to GP 501 Graduate Program Planning (1 cr.). (Students must have a bachelor's degree with a liberal arts or science major or its equivalent).

- *SE 202 The Learner with Special Needs in School and Society 3 crs.
- SE 206 Special Education in a Diverse Society 2 crs.
- SE 207 Technology in Special Education 1 cr.
- SE 302 Principles and Application of Behavioral Management for the Special Needs Learner 3 crs.
- SE 303 Principles and Procedures of Assessment of Special Needs Learners 3 crs.
- SE 402 Children with Reading Disabilities: Diagnosis and Teaching Strategies 3 crs.
- SE 403 Curriculum Development and Implementation for the Special Needs Learner 3 crs.
- EE 452 Methods and Materials in Elementary Education or
ED 440 Methods and Materials in Secondary Education 3 crs.

Special Education and Communication Disorders

- PY 224 Child Psychology
or
PY 226 Adolescent Psychology 3 crs.
- SE 404 Student Teaching Practicum: Mainstream Program
(Pre-K-9)
and
SE 405 Student Teaching Practicum: Special Education
Program (Pre-K-9) 12 crs.
or
SE 406 Student Teaching Practicum: Mainstream Program
(5-12)
and
SE 407 Student Teaching Practicum: Special Educa-
tion Program (5-12) 12 crs.

**To be completed prior to admission to Professional Education and enrollment in upper level special education courses.*

Note: This program does not provide a graduate degree or guarantee admission or transfer credit to a graduate program.

Program B**Post Baccalaureate Program: Provisional Certification with Advanced Standing — Teacher of Students with Intensive Special Needs**

Students without teacher certification who wish to obtain provisional certification with advanced standing as a Teacher of Students with Intensive Special Needs must complete the following courses, in addition to GP 501 Graduate Program Planning (1 cr.). Students must have a bachelor's degree with a psychology major or its equivalent or permission of the Graduate Program Coordinator.

- *SE 202 The Learner with Special Needs in School
and Society 3 crs.
- SE 203 Social, Racial, and Linguistic Backgrounds of Special
Needs Learners 3 crs.
- SE 302 Principles and Application of Behavioral
Management of Special Needs Learners 3 crs.
- SE 303 Principles and Procedures of Assessment of
Special Needs Learners 3 crs.
- SE 410 Instructional and Curricula Strategies for
Intensive Special Needs Learners I 3 crs.
- SE 411 Instructional and Curricula Strategies for
Intensive Special Needs Learners II 3 crs.
- SE 412 Student Teaching Practicum: Educational
Setting, ISN 6 crs.
- SE 413 Student Teaching Practicum: Alternative
Setting, ISN 6 crs.
- CD 290 Language Acquisition and Development 3 crs.
- PE 324 Physical and Motor Development of
Individuals with Disabilities 3 crs.

**To be completed prior to admission to Professional Education Program, which must be completed prior to enrollment in upper level special education courses.*

Note: This program does not provide a graduate degree or guarantee admission or transfer credit to a graduate program.

Program C**Post Baccalaureate Program: Standard Certification - Teacher of Students with Special Needs (Pre-K-9, 5-12)**

Students with standard certification in another field who wish to obtain standard certification as a Teacher of Students with Special Needs (Pre-K-9 or 5-12) must complete the following courses, in addition to GP 501 Graduate Program Planning (1 cr.).

Prerequisite: SE 510 Exceptional Children in the Schools or equivalent introductory/background course in special education (undergraduate level acceptable).

- SE 504 Applied Curriculum Development for Learners with
Special Needs: Pre-K-9
or
SE 505 Applied Curriculum Development for Learners
with Special Needs: 5-12..... 3 crs.
- SE 516 Applied Collaborative Strategies 3 crs.
- SE 517 Language Skills for Special Needs Learners 3 crs.
- SE 530 Assessment Procedures in Special Education 3 crs.
- SE 575 Behavior Interventions in Special Education 3 crs.
- SE 591 Practicum in Special Education (Pre-K-9)(5-12)... 6 crs.
or
SE 592 Internship in Special Education (Pre-K-9)(5-12)

Other courses as determined with adviser.

Note: This program does not provide a graduate degree or guarantee admission or transfer credit to a graduate program.

Program D**Clinical Master's Program: Standard Certification - Teacher of Students with Special Needs (Pre-K-9, 5-12)**

This Master of Education in Special Education clinical program is designed for students who hold provisional certification with advanced standing in special education and who seek a master's degree and standard certification as a Teacher of Students with Special Needs (Pre-K-9 or 5-12). As part of their program, in addition to GP 501 Graduate

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Program Planning (1 cr.), students must satisfactorily complete the following curriculum:

Education Core

- ED 530 Research Methods 3 crs.
- ED 531 The Curriculum Experience 3 crs.
- ED 532 Critical Issues: Educators and Society 3 crs.
- ED 533 Effective Practice in Human Development and Learning 3 crs.
- ED 534 Clinical Experience 6 crs.
- ED 537 Applied Research Project 2 crs.

Course descriptions for ED 530-537 are provided in the *School of Education and Allied Studies* section of this catalog.

Department Core

SE 504 Applied Curriculum Development for Learners with Special Needs: Pre-K-9

or

SE 505 Applied Curriculum Development for Learners with Special Needs: 5-12 3 crs.

- SE 516 Applied Collaborative Strategies 3 crs.
- SE 517 Language Skills of Special Needs Learners 3 crs.
- SE 530 Assessment Procedures in Special Education 3 crs.
- SE 537 Applied Research Project.....1 cr.
- SE 550 Seminar in Special Education 3 crs.

Other courses as determined with adviser.

Total: minimum of 36 graduate credits.

Program E

Master's Degree Program: Standard Certification - Teacher of Students with Special Needs (Pre-K-9, 5-12)

This Master of Education in Special Education program is designed for students with standard certification in another field who wish to be certified as a Teacher of Students with Special Needs (Pre-K-9 or 5-12) and who wish to earn a degree. As part of their program, in addition to GP 501 Graduate Program Planning (1 cr.), students must satisfactorily complete the following curriculum:

Education Core

- ED 530 Research Methods 3 crs.
- ED 531 The Curriculum Experience 3 crs.
- ED 533 Effective Practice in Human Development & Learning 3 crs.
- ED 537 Applied Research Project 2 crs.

Course descriptions for ED 530-537 are provided in the *School of Education and Allied Studies* section of this catalog.

Department Core

Prerequisite: SE 510 Exceptional Children in the Schools or equivalent introductory/background course in special education (undergraduate level acceptable).

SE 504 Applied Curriculum Development for Learners with Special Needs: Pre-K-9

or

SE 505 Applied Curriculum Development for Learners with Special Needs: 5-12 3 crs.

- SE 516 Applied Collaborative Strategies 3 crs.
- SE 517 Language Skills of Special Needs Learners 3 crs.
- SE 530 Assessment Procedures in Special Education 3 crs.
- Elective Course Approved by Adviser 3 crs.
- SE 537 Applied Research Project 1 cr.
- SE 550 Seminar in Special Education 3 crs.
- SE 575 Behavior Interventions in Special Education 3 crs.
- SE 591 Practicum in Special Education (Pre-K-9 or 5-12) 6 crs.

or

SE 592 Internship in Special Education (Pre-K-9 or 5-12) 6 crs.

Other courses as determined with adviser.

Total: minimum of 36 graduate credits.

Program F

Master of Education in Special Education (Non-certification)

This program is designed for students who wish to earn a master's degree in special education. This program does not lead to certification.

As part of their program, in addition to GP 501 Graduate Program Planning (1 cr.), students must satisfactorily complete the following curriculum:

Required Education Courses

- ED 530 Research Methods 3 crs.
- ED 531 The Curriculum Experience 3 crs.
- ED 533 Effective Practice in Human Development and Learning 6 crs.
- ED 537 Applied Research Project 2 crs.

Course descriptions for ED 530-533 are provided in the *School of Education and Allied Studies* section of this catalog.

Required Special Education Courses

Prerequisite: SE 510 Exceptional Children in the Schools or comparable introductory/background course in special education (undergraduate level acceptable).

Special Education and Communication Disorders

- SE 504 Applied Curriculum Development for Learners with Special Needs (Pre-K-9)
or
SE 505 Applied Curriculum Development for Learners with Special Needs (5-12) 3 crs.
SE 516 Applied Collaborative Strategies
or
SE 522 The Inclusion Classroom: Philosophy and Implementation 3 crs.
SE 530 Assessment Procedures in Special Education 3 crs.
SE 537 Applied Research Project 1 cr.
SE 550 Seminar in Special Education 3 crs.
SE 555 Field Experience in Special Education (only for students not holding certification in special education) 3-6 crs.

Elective courses as determined with adviser.
Total: minimum of 36 graduate credits.

Concentration in Bilingual Special Education

This concentration will provide educators with knowledge and skills in the area of bilingual special education. It will not lead to additional state or national certification.

- ED 530 Research Methods 3 crs.
ED 532 Critical Issues: Educators and Society 3 crs.

Required Special Education Courses:

- SE 504 Applied Curriculum Development for Learners with Special Needs (Pre-K-9)
or
SE 505 Applied Curriculum Development for Learners with Special Needs (5-12) 3 crs.
SE 517 Language Skills of Special Needs Learners 3 crs.
SE 540 Contemporary Issues and Mandates in Bilingual Special Education 3 crs.
SE 542 Behavior Interventions in Bilingual Special Education 3 crs.
SE 544 Language Development and Bilingualism 3 crs.
SE 546 Strategies and Techniques for Adapting Bilingual Resources and Materials for the Special Needs Learner
or
SE 547 Multiple Roles for Bilingual Teachers of Moderate Special Needs Children 3 crs.
SE 550 Seminar in Special Education 3 crs.

Elective courses as determined with adviser.
Total: minimum of 36 graduate credits.

**Program G
Communication Disorders Concentration**

Program Coordinator: Dr. Sandra Ciocci

The graduate-level program in Communication Disorders prepares the student for a professional career in speech/language pathology. At the time of catalog publication, this program was under review and revision. Applications will be accepted when the new program is approved. **For further information, contact the communication disorders program coordinator.**

In addition to the Graduate School's admission requirements all applicants to the program must complete a successful interview with members of the departmental graduate committee prior to acceptance. The applicant's writing abilities will be evaluated using the candidate's statement on page 2 of the application to Graduate School. On the basis of these evaluations, candidates may be denied admissions or required to complete specific work designed to strengthen the candidate's perceived weakness.

Prerequisites which must be taken prior to undertaking required graduate course work:

- CD 281 Speech Anatomy and Physiology
CD 282 Speech and Hearing Science
CD 290 Language Acquisition and Development
CD 294 Phonetics
CD 312 Language Disorders in Children
CD 313 Introduction to Articulation Disorders
CD 351 Introduction to Audiology
EN 323 Introduction to Linguistics
PY 227 Development Through the Life Cycle

If a person applying to the program does not have a communication disorders background or has not taken the following courses, these courses must be taken prior to completion of the degree program and in addition to the required graduate program.

- CD 325 Voice Disorders in Children and Adults
CD 393 Aural Rehabilitation
CD 451 Clinical Strategies
CD 480 Clinical Procedures: An Overview

All accepted students must enroll in GP 501 Graduate Program Planning under the direction of their adviser. Credit requirements for this concentration (minimum of 44) include:

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- ED 530 Research Methods
- CD 543 Advanced Clinical Strategies
- CD 552 Neurogenic Communication Disorders
- CD 553 Language Disorders in Older Children
- CD 554 Organic Disorders in Children
- CD 557 Fluency Disorders: Theory and Therapy
- CD 558 Aphasia in Adult
- CD 590 Nonverbal and Augmentative
Communication Systems
- Choice of:
 - CD 440 Clinical Practicum: Audiology (minimum 1 credit)
 - CD 520 Pediatric Audiology
 - CD 540 Advanced Audiology
 - CD 596 Graduate Clinical Practicum I: Speech Pathology
(minimum 12 credits)
 - CD 597 Graduate Clinical Practicum II: Speech Pathology
(minimum 12 credits)

The departmental offerings listed below include the following courses which may not be taken for graduate credit:

- All courses below the 400 level;
- SE 402 Children with Reading Disabilities: Diagnosis and Teaching Strategies
- SE 403 Curriculum Development and Implementation for Special Needs Learners
- SE 404 Student Teaching Practicum: Mainstreamed Program (Pre-K-9)
- SE 405 Student Teaching Practicum: Special Education Program (Pre-K-9)
- SE 406 Student Teaching Practicum: Mainstreamed Program (5-12)
- SE 407 Student Teaching Practicum: Special Education Program (5-12)
- SE 410 Instructional and Curricula Strategies for Learners with Intensive Special Needs I (3 crs.)
- SE 411 Instructional and Curricula Strategies for Learners with Intensive Special Needs II (3 crs.)
- SE 412 Student Teaching Practicum: School Setting, ISN (6 crs.)
- SE 413 Student Teaching Practicum: Alternative Setting, ISN (6 crs.)
- SE 498 Internship in Special Education
- SE 499 Directed Study in Special Education

*Special Education and Communication Disorders***Course Offerings*****Special Education****SE 202 The Learner with Special Needs in School and Society (3 crs.)**

This orientation course focuses on various aspects of education for special needs learners. Emphasis will be on definitions, terminology, legal aspects, developmental characteristics, curriculum, and inclusive environment programs related to special needs learners. Prepracticum monitored field based experiences required at the level of certification sought: Pre-K-9, 5-12

SE 203 Social, Racial and Linguistic Backgrounds of Special Needs Learners (3 crs.)

This course will investigate theories of typical and atypical growth and development. It will sensitize the student to the cultural, social and linguistic viewpoints of minority and bilingual learners and stress the ability to communicate with parents and participate on interdisciplinary teams. Prepracticum monitored field based experience required at the level of certificate sought: Pre-K-9, 5-12.

SE 206 Special Education in a Diverse Society (2 crs.)

This course will provide students with a forum for the study, discussion and practical application and inclusion of multicultural education principles into the curriculum. Students will explore educational approaches for learners from diverse cultural, linguistic and socioeconomic-class backgrounds.

SE 207 Technology in Special Education (1 cr.)

This course will provide students information enabling them to identify ways in which technology can assist with managing the learning environments for students with special needs. In addition they will become familiar with sources of specialized materials equipment and assistive technology. Students will develop skills in the use of technology, including word processing, test scoring and CAI.

SE 302 Principles and Application of Behavioral Management for the Special Needs Learner (3 crs.)

This course will focus on basic principles, models and techniques for effective individual and classroom management in various educational environments. Pre-practicum monitored field based experiences required at the level of certificate sought: Pre-K-9, 5-12. *(Prerequisite: SE 202, and acceptance in the Professional Education Program)*

SE 303 Principles and Procedures of Assessment of Special Needs Learners (3 crs.)

This course will provide students with the ability to assess educational needs of special learners. Emphasis on consideration of non-discriminatory procedures appropriate to social, racial and linguistic differences. Strategies for modifying teaching based on evaluation results. Pre-practicum monitored field based experiences required at the level of certificate sought: Pre-K-9, 5-12. *(Prerequisite: SE 202, and acceptance in the Professional Education Program)*

SE 317 Teaching Strategies in Mainstreamed Programs (3 crs.)

This course will enable the student to identify appropriate strategies to effectively educate special needs learners in regular classroom settings. It will provide the bridge between the principles of mainstreaming and its educational implementation by highlighting instructional strategies and curriculum adaptations that are possible within the regular classroom. A field experience is involved. *(Prerequisite: PY 100 and SE 202)*

SE 400 The Culturally Different Child with Special Needs (3 crs.)

This course will enable the student to develop the necessary competencies for teaching special needs children who are culturally and/or linguistically different. The course will combine psychological, linguistic, anthropological and educational findings with practical guidelines and strategies for instruction. *(Prerequisite: PY 100 and SE 202 or SE 510 or consent of instructor)*

SE 402 Children with Reading Disability: Diagnosis and Teaching Strategies (3 crs.)

This course will investigate the etiology of reading disabilities: physical, cultural and environmental. Early literacy, diverse modes of instruction and correlation to whole language programs will be analyzed. Specific teaching programs and strategies will be emphasized. Pre-practicum monitored field based experiences required at the level of certificate sought: Pre-K-9, 5-12. *(Prerequisite: SE 202, and acceptance in the Professional Education Program)*

SE 403 Curriculum Development and Implementation for Special Needs Learners (3 crs.)

This course enables the student to design and implement appropriate Individual Educational Plans (IEP) under existing federal and state laws. Emphasis is placed on strategies and techniques which promote the academic, social, emotional, vocational and cultural needs of the special needs learner within a variety of instructional environments. Pre-practicum monitored field based experiences required at the level of certificate sought: Pre-K-9, 5-12. *(Prerequisite: SE 202, and acceptance in the Professional Education Program)*

SE 404 Student Teaching Practicum: Mainstream Program (Pre-K-9) (6 crs.)

Practicum involves a minimum of one and hundred fifty (150) hours of observation, assisting and full time teaching, with a minimum of one hundred and thirty-five (135) hours in direct instructional responsibilities in a regular classroom in which special needs students are integrated. This practicum is done at the Pre-K-9 level under a qualified cooperating practitioner and a college supervisor. *(Prerequisite: completion of required special education courses)*

SE 405 Student Teaching Practicum: Special Education Program (Pre-K-9) (6 crs.)

Program involves a minimum of one hundred and fifty (150) hours of observation, assisting and full time teaching, with a minimum of one hundred and thirty-five (135) hours in direct instructional responsibilities in programs for moderate special needs students. This practicum is done at the Pre-K-9 level under a qualified cooperating teacher and college supervisor. *(Prerequisites: completion of required special education courses)*

* See page 73 for general information regarding course offerings.

School of Education & Allied Studies

SE 406 Student Teaching Practicum: Mainstreamed Program (5-12) (6 crs.)

Practicum involves a minimum of one hundred and fifty (150) hours of observation, assisting and full time teaching, with a minimum of one hundred and thirty-five (135) hours in direct instructional responsibilities in a regular classroom in which special needs students are integrated. This practicum is done at the 5-12 level, under a qualified cooperating teacher and college supervisor. (*Prerequisite: completion of required special education courses*)

SE 407 Student Teaching Practicum: Special Education Program (5-12) (6 crs.)

Practicum involves a minimum of one hundred and fifty (150) hours of observation, assisting, and full time teaching, with a minimum of one hundred and thirty-five (135) hours in direct instructional responsibilities in a program for moderate special needs students. This practicum is done at the 5-12 level, under a qualified cooperating teacher and college supervisor. (*Prerequisite: completion of required special education courses*)

SE 410 Instructional and Curricula Strategies for Learners with Intensive Special Needs I (3 crs.)

This course is designed to provide knowledge relating to the curricula and instructional needs of learners with intensive special needs. Fundamental concepts of the IEP process, applicable technologies that facilitate communication, mobility, parental support, support systems, and collaborative aspects will be addressed. Pre-practicum monitored field based experiences required. (*Prerequisites: SE 202 and SE 203 and SE 303*)

SE 411 Instructional and Curricula Strategies for Learners with Intensive Special Needs II (3 crs.)

This course provides further development of issues addressed in SE 410. Additionally, the course provides knowledge concerning advanced instructional and management strategies that can enhance the quality of life of individuals with intensive special needs. Fundamental concepts/strategies relating to social interactions, employability, constructive use of leisure time, managing behavior, communication interventions, and medication management are addressed. Pre-practicum monitored field based experiences are required. (*Prerequisite: SE 410*)

SE 412 Student Teaching Practicum: School Setting, ISN (6 crs.)

Practicum involves a minimum of 150 hours of observation, assisting, and full-time teaching in an educational program for individuals with intensive special needs. The practicum is done at the 3-21 level, under the supervision of a cooperating practitioner and college supervisor. (*Prerequisites: completion of required special education courses.*)

SE 413 Student Teaching Practicum: Alternative Setting, ISN (6 crs.)

Practicum involves a minimum of 150 hours of observation, assisting, and full-time responsibilities in an alternative program for individuals with intensive special needs. This practicum is done at the 3-21 level, under the supervision of a cooperating practitioner. (*Prerequisites: completion of required special education courses.*)

SE 415 Methods and Materials for the Academically Talented (3 crs.)

Emphasis is placed on the identification and placement of gifted pupils in our schools and the related program, enrichment activities, creative development, method and materials, modified curriculum, administration, motivation and treatment of underachievement. (*Prerequisite: PY 100*)

SE 429 Field Work in Special Education (3 crs.)

The practical aspects of special education will be brought into focus through the use of appropriate facilities. In cooperation with area programs, specific teaching and related activities will be undertaken for use in both special needs and mainstream programs. (*Prerequisite: SE 302 and SE 303 or consent of instructor*)

SE 435 Behavior Interventions in Special Educator (3 crs.)

This course will focus on the background, basic principles and techniques necessary for effective development of behavior with special needs students. Emphasis will be placed on behavioral procedures that have been found effective for individual and classroom use, including the ability to systematically observe and record student behavior. Other interventions and their applications to special education settings will also be considered. (*Prerequisite: PY 100 and SE 202 or SE 510 or consent of instructor*)

SE 436 Consulting Skills for Special Educators (3 crs.)

This course emphasizes the development of consulting and training skills of the special educator. This will include a survey of the origins and dynamics of consulting techniques which will result in the student being able to work in a variety of settings. (*Prerequisite: PY 100 and SE 202 or SE 510 or consent of instructor*)

SE 438 Career Education for Special Needs Learners (3 crs.)

This course will assist in preparing special educators to understand career educational needs of special needs learners. Students will develop skills in appropriate objective writing and curriculum design in the area of career education for special needs learners. (*Prerequisite: PY 100 and SE 202 or SE 510 or consent of instructor*)

SE 460 Topics in Special Education (3 crs.)

This course is designed for students who desire to study selected topics in this field; it will allow for timely and relevant information to be explored. Topic changes each semester. (*Prerequisite: SE 202 or SE 510 or consent of instructor*)

SE 498 Internship in Special Education (3-15 crs.)

Off-campus experiences in areas related to expanding the student's background in Special Education. In-depth exposure to such areas as rehabilitation programs, sheltered workshops, day care centers, hospital and institutional programs. (*Prerequisite: consent of the department; formal application required*)

SE 499 Directed Study in Special Education (1-3 crs.)

Open to juniors and seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits. (*Prerequisite: consent of the department; formal application required*)

Other Approved Courses:

SE 418 Etiology, Dynamics and Treatment of Children with Behavioral Needs

SE 422 Teaching Strategies for Severe Special Needs

SE 428 Rehabilitation and Special Education

SE 430 Workshop in Adult Special Education

SE 439 Diagnostic Techniques for Special Educators

SE 440 Identification, Assessment & Development of Individualized Educational Programs (I.E.P.) For Vocational Education

SE 441 Strategies and Methods for Special Needs Students in Vocational Education

Special Education and Communication Disorders

SE 502 Research (credit to be arranged)

Original research undertaken by the graduate student in his field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

SE 503 Directed Study (credit to be arranged)

Designed for the graduate student who desires to study selected topics in a specific field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

SE 504 Applied Curriculum Development for Learners with Special Needs: Pre-K-9 (3 crs.)

This course will cover alternative strategies, techniques and materials to promote successful learning of the learner with special needs at the Pre-K-9 level. Emphasis will be on the areas of reading, mathematics and language arts; other areas will be considered. Field experiences will be included. (*Prerequisites: SE 510 or equivalent*)

SE 505 Applied Curriculum Development for Learners with Special Needs: 5-12 (3 crs.)

This course will cover alternative strategies, techniques and materials to promote successful learning of the learner with special needs at the 5-12 level. Emphasis will be on the areas of reading, mathematics and language arts; other areas will be considered. Field experiences will be included. (*Prerequisites: SE 510 or equivalent*)

SE 508 Strategies for Diversity (3 crs.)

This course will provide students with a forum for the study, discussion, and practical inclusion of multicultural principles and strategies into the curriculum. It will investigate the many levels of culture defined within the macroculture of U.S. society. Students will gain knowledge and information of effective methods, resources, and materials in order to develop and adapt techniques and strategies to implement in the contemporary multicultural classroom.

SE 510 Exceptional Children in the Schools (3 crs.)

An orientation to all aspects of education pertaining to special needs children. Emphasis will be on educational characteristics of each area of exceptionality and the new role of special education in the schools. Chapter 766 and P.L. 94-142 will be included.

SE 512 Organization and Administration of Special Education (3 crs.)

A comprehensive study of the psychological diagnosis, the personnel, the curriculum, the facilities, and the pupil services in an effective Special Education program. (*Prerequisite: SE 510 or equivalent or consent of the instructor*)

SE 514 New Education Policies for Children with Special Needs (3 crs.)

The legal basis for the education of children with special needs to help them become accepted, productive and social members of our society. Integration, assessment, delabelization, and involvement declare the real responsibility of all parents/guardians, of all educators, and of all the American public. (*Prerequisite: SE 510 or equivalent or consent of the instructor*)

SE 515 Teacher Orientation to Learning Disabilities (3 crs.)

Acquaint in-service teachers with current statistics concerning chil-

dren with moderate special needs and encourage appreciation of the wide spectrum of difficulties these children have. Diagnosis and evaluation will be studied in conjunction with the fields of perceptual handicaps, physiology, neurology, and psychology. (*Prerequisite: SE 510 or equivalent*)

SE 516 Applied Collaborative Strategies (3 crs.)

This course will build on the knowledge of individual and different learning styles and thinking skills. Curriculum planning and instructional techniques will be discussed and developed. Strategies for maximizing consulting and collaborative team efforts will be covered through discussion, research, role playing and interviews. Field experience will be included. (*Prerequisite: SE 510 or equivalent*)

SE 517 Language Skills for Special Needs Learners (3 crs.)

This course will cover classroom approaches and strategies for the diagnosis and analysis of language and related learning dysfunctions. Emphasis will be on the development of a total language curriculum appropriate for utilization within special education and mainstream programs. (*Prerequisite: SE 510 or equivalent*)

SE 520 Special Topics in Special Education (3 crs.)

Special topics of current relevance in special education will be offered from time to time. The topic to be addressed will be announced in pre-registration publications. May be taken more than once with the consent of the adviser. (*Prerequisite: course prerequisites may be specified depending upon the nature of the topic*)

SE 522 The Inclusion Classroom: Philosophy and Implementation (3 crs.)

This course will enable the student to identify and apply appropriate strategies, techniques and curriculum adaptations to promote success for learners with special need in the regular classroom. Consideration will be given to the philosophical and legal considerations for inclusion/mainstreaming. Field experiences will be required. (*Prerequisites: SE 510 or equivalent*)

SE 530 Assessment Procedures in Special Education (3 crs.)

This course will focus on the administration, analysis and interpretation of standardized and other assessment data, with consideration of cultural and linguistic applications. Emphasis will be on the developing of instructional programs from the data and the providing of information to professionals and parents. Field experiences will be included. (*Prerequisite: SE 303 and SE 510 or equivalent*)

SE 535 Exceptional Learner in the Classroom (1.5 crs.)

An orientation to all aspects of education pertaining to the learner with special needs. Emphasis will be on educational characteristics of each area of exceptionality. Skills will be developed for developing appropriate institutional strategies, techniques, and curriculum adaptations to promote successful learning of the learner with special needs. *Offered Spring Semester*

SE 537 Applied Research Project (1 crs.)

In this course, students complete an applied research project which integrates theory and practice utilizing education research format and disciplinary knowledge.

*School of Education & Allied Studies***SE 540 Contemporary Issues and Mandates in Bilingual and Special Education (3 crs.)**

Skills will be developed for identifying "special needs" relative to educating children from minority groups using a case study approach. Emphasis will be on the laws (Chapter 766, P.L. 94-142): Lau Guidelines, Chapter 71A, Section 636, Section 504 of P.L. 93-112 and their implications for programming. *(Prerequisite: SE 510 equivalent or consent of the instructor)*

SE 542 Behavior Interventions in Bilingual Special Education (3 crs.)

Skills will be developed for understanding how cultural differences affect behavior. The models of behavioral management will include positive peer culture, tribal orientation, cultural symbols, social relations in the classroom, and multicultural techniques in addition to the theories of Erikson, Maslow, and Skinner, and other psychological and cognitive models. *(Prerequisite: SE 510 or equivalent or consent of the instructor)*

SE 544 Language Development and Bilingualism (3 crs.)

Skills will be developed for identifying dominance and language proficiency, understanding theories of first and second language learning, relating methods and theories on reading to ESL materials and identifying biases and deficiencies in existing curriculum for linguistic and cultural minority students. Emphasis will be on the effect of culture and language differences on speech and language development. *(Prerequisite: SE 510 or equivalent or consent of the instructor)*

SE 546 Strategies and Techniques for Adapting Bilingual Resources and Materials for the Special Needs Learner (3 crs.)

Skills will be developed for organizing, planning, teaching and evaluating materials and programs for cultural/racial/linguistic biases and stereotyping, but with an additional focus on sensitivity to bilingualism and biculturalism. Emphasis will be on developing appropriate materials and strategies for meeting the needs of bilingual children in the classroom, the resource room, or least restrictive environment. *(Prerequisite: SE 510 or equivalent or consent of the instructor)*

SE 547 Multiple Roles for Bilingual Teachers of Moderate Special Needs Children (3 crs.)

Skills will be developed for the many roles a change-agent might function in, such as educators, consultants, advocates, liaisons, counselors, advisers and trainers. Emphasis will be on the major role of the Bilingual Special Educator as a change-agent in the school and community to reduce racial discrimination in regular and special education. *(Prerequisite: SE 510 or equivalent or consent of the instructor)*

SE 550 Seminar in Special Education (3 crs.) (to replace SE 513)

An advanced study of major theoretical and contemporary issues influencing special education. Emphasis will be on curriculum, methodology, educational theory and research aspects with classroom application. Each participant will undertake an extensive study of a significant issue in special education. *(Prerequisite: Completion of 24 semester hours in the M.Ed. in Special Education program or consent of the instructor)*

SE 555 Field Experience in Special Education (3-6 crs.)

A field experience that offers qualified students the opportunity to gain practical off-campus experience in special education. Placements are in public and private agencies and are designed to complement the student's study in special education; a minimum of 10 clock hours

per credit is required in the field. *(Prerequisite: Completion of 24 credits in the M.Ed. in Special Education program or consent of the adviser)*

SE 575 Behavior Interventions in Special Education (3 crs.)

This course will focus on the background, basic principles and techniques necessary for effective development of behavior with special needs students. Emphasis will be placed on behavioral procedures that have been found effective for individual and classroom use, including the ability to systematically observe and record student behavior. Other interventions and their applications to special education settings will also be considered. *(Prerequisite: PY 100 and SE 202 or SE 510 or consent of instructor)*

SE 582 Computers and the Special Needs Child (3 crs.)

This course demonstrates the unique impact computers can have on the education of students with a wide spectrum of special needs. Students review psychological perspectives on special education and computer techniques as tools to aid that education. Moderate and low-incidence severe handicaps are considered along with milder school disabilities. *(Prerequisite: SE 510 or equivalent or consent of the instructor)*

SE 590 Teaching the Gifted Child (3 crs.)

Meeting the special needs of gifted children with a three-stage teacher training model allowing students to design curriculum which will develop critical and creative thought. Working in small groups, students will shape their ideas to address the special needs of the gifted in both mainstream and separate program settings. *(Prerequisite: SE 415 or consent of the instructor)*

SE 591 Practicum - Special Education (Pre-K-9, 5-12) (6 crs.)

Full-time teaching in the role and at the level of certification sought under a qualified practitioner and college supervisor for a minimum of 150 clock hours. *(Prerequisite: acceptance and retention in the Professional Education Program, satisfactory completion of program requirements and consent of department)*

SE 592 Internship - Special Education (Pre-K-9, 5-12) (6 crs.)

Employment less than full-time, but at least one-fifth time, in the role and at the level of certification sought under appropriate school and college supervisors for a minimum of 300 clock hours within one school year. *(Prerequisite: acceptance and retention in the Professional Education Program, satisfactory completion of program requirements and consent of department)*

Other Approved Courses:

SE 502 Research (credit to be arranged)

SE 536 Development of Auditory and Visual Perceptual Skills in Young Children

SE 541 Non-Discriminatory Assessment I

SE 543 Non-Discriminatory Assessment II

SE 545 Individual Education Planning in Bilingual Program Development and Instructional Alternatives

SE 548 Special Education Practicum (Working with Bilingual Children)

SE 549 Special Education Internship (Working with Bilingual Children)

Special Education and Communication Disorders

Communication Disorders

CD 220 Introduction to Communication Disorders (3 crs.)
An introduction to speech, language and hearing disorders in children and adults. Disorders of functional, structural and neurological etiologies will be discussed. *Either semester*

CD 231 Sign Language I (3 crs.)
History and development of manual communication. Focus on American Sign Language and exact English through vocabulary development and beginning conversational skills. Formerly CD 242. *Fall semester*

CD 232 Sign Language II (3 crs.)
A more advanced course in sign language with an emphasis on conversational skills and interpretation. Formerly CD 243. *(Prerequisite: CD 231) Spring semester*

CD 281 Speech Anatomy and Physiology (3 crs.)
Introduction to the study of the anatomy and physiology of systems involved in speech, language, and hearing, and their relationships to disorders of communication. *Fall semester*

CD 282 Speech and Hearing Science (3 crs.)
An introductory course as it relates to normal aspects of speech, hearing, and language. Physiological elements of speech production, speech acoustics, auditory physiology and the psychophysics of sound reception. *Spring semester*

CD 290 Language Acquisition and Development (3 crs.)
Interrelationships among linguistic, neurophysiological, physical, intellectual, social, and cultural factors as they affect language acquisition in the child. Analysis of language development will be undertaken by students. Formerly CD 292. *Either semester*

CD 294 Phonetics (3 crs.)
Analysis and transcription of speech sound systems. Formerly CD 291. *Spring semester*

CD 312 Language Disorders in Children (3 crs.)
Etiology, diagnosis, evaluation and treatment of language-impaired children. Clinical case material will be discussed and analyzed. Both habilitative and rehabilitative procedures will be covered. Formerly CD 322. *(Prerequisite: CD 290, CD 294) Spring semester*

CD 313 Articulation Disorders (3 crs.)
Study of abnormal and normal phonological development using approaches such as distinctive feature theory, phonological process analysis, assessment and therapy procedures. *(Prerequisite: CD 220, CD 281, CD 294) Fall semester*

CD 325 Voice Disorders in Children and Adults (3 crs.)
An introduction to etiology, diagnosis, and remediation of voice disorders and associated pathological conditions. *(Prerequisite: CD 220, CD 281, CD 282) Spring semester*

CD 338-339 Honors Tutorial (3 crs. each semester)
Special topics in Communication Disorders. Open to All-College and Departmental Honors students. Three hourly meetings weekly. *(Prerequisite: consent of the department) CD 338 Fall semester, CD 339 Spring semester*

CD 351 Introduction to Audiology (3 crs.)
Science of hearing; transmission and measurement of sound to the human ear, anatomy, physiology, and neurology of hearing mechanism. Related pathological conditions will be discussed. *(Prerequisite: CD 282) Fall semester*

CD 352 Clinical Audiology (3 crs.)
Study of the measurement of hearing including basic tests as well as tests used for differential diagnosis of auditory disorders. Two lecture periods and one two-hour laboratory period weekly. *(Prerequisite: CD 351) Spring semester*

CD 393 Aural Rehabilitation (3 crs.)
Habilitation and rehabilitation for the hard of hearing including assessment and therapy procedures related to auditory training, speech reading, language therapy, and hearing aid training. Educational management and counseling strategies will also be addressed. *(Prerequisite: CD 351 and CD 352) Fall semester*

CD 399 Topical Studies (3 crs.)
Variable contemporary topics in communication disorders. *Spring semester*

CD 440 Clinical Practicum: Audiology (1-3 crs.)
This course provides clinical experience in audiology. Clinical hours obtained can be credited toward A.S.H.A. hours. Activities will include hearing screening and diagnostic testing in various settings. The course may be repeated once. *(Prerequisite: CD 352, a cumulative GPA of 2.75, a GPA of 2.75 in Communication Disorders courses, and consent of Communication Disorders faculty) Either semester*

CD 451 Clinical Strategies in Communication (3 crs.)
The objective of this course is to introduce the student to intervention strategies and skills used in assessment of children and adults with communication disorders. It will be taken in the fall semester of the senior year by all students who elect the practicum track. Other Communication Disorders students may take it only with consent of the Communication Disorders faculty. *(Prerequisite: CD 312, CD 313, CD 325, a cumulative GPA of 2.75 and a GPA of 2.75 in major and consent of the Communications Disorders area faculty) Fall semester*

CD 480 Clinical Procedures: An Overview (3 credits)
Professional behavior, responsibilities, and ethics will be presented followed by an introduction to the clinical process. The need for consideration of cultural diversity and treatment throughout the lifespan will be emphasized. Through completion of 25 observation hours, the students will have the opportunity to demonstrate integration of concepts presented throughout the Communication Disorders curriculum. *Either semester*

*School of Education & Allied Studies***CD 485 Honors Thesis (3 crs.)**

This course is open to All-College and Departmental Honors students. One-hour weekly meetings with the thesis director will culminate in an honors thesis. With the consent of the Departmental Honors Committee and the thesis director, this course may be extended into a second semester for three additional credits depending upon the scope of the project. Whether the final version of the thesis qualifies the student to graduate with honors will be determined by the Departmental Honors Committee. *Either semester*

CD 490 Clinical Practicum: Speech Pathology (1-6 crs.)

This is a clinical experience in speech pathology. Clinical hours obtained can be credited towards A.S.H.A. hours. Activities will be determined by students' needs, experience and academic preparation. Initially the student will register for one credit to be taken concurrently with CD 451. May be repeated once. (*Prerequisites: CD 312, CD 313, CD 325, a cumulative GPA of 2.75, a GPA of 2.75 in Communication Disorders courses, and consent of the Communication Disorders faculty.*)

CD 499 Directed Study in Communication Disorders (1-3 crs.)

Open to juniors and seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits. (*Prerequisite: consent of the department; formal application required*) *Either semester*

CD 502 Research (credit to be arranged)

Original research undertaken by the graduate student in his or her field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

CD 503 Directed Study (credit to be arranged)

Designed for the graduate student who desires to study selected topics in a specific field. For details, consult the paragraph entitled "Independent Study" in the *Graduate School* section of this catalog.

CD 520 Pediatric Audiology (3 crs.)

Assessment and clinical management of children with hearing disorders. Etiological factors; problems of screening and differential diagnosis, conditioning and electrophysiological methods. (*Prerequisite: CD 351, CD 352, CD 393*)

CD 540 Advanced Audiology (3 crs.)

After reviewing the function of the normal and abnormal auditory system, emphasis will be placed on current audiological methods of assessing normal and abnormal hearing. Implications of various types of hearing loss on communication abilities will be discussed. (*Prerequisite: CD 352, or equivalent and consent of graduate adviser*)

CD 543 Advanced Clinical Strategies (3 crs.)

An advanced course covering intervention strategies and diagnostic procedures. Emphasis will be placed on multicultural considerations and approaches appropriate to clients of all ages. (*Prerequisite: CD 451*)

CD 552 Neurogenic Communication Disorders (3 crs.)

Consideration of neuropathologies, assessment and intervention for communicative disorders of neurogenic origin. Includes the dysarthrias, apraxia of speech, language of confusion and generalized intellectual impairment, and management of individuals with trau-

matic closed head injuries. Also includes treatment of dysphagia of neurogenic origin. (*Prerequisite: CD 281, CD 290, CD 312, CD 313*)

CD 553 Language Disorders in Older Children (3 crs.)

Emphasis concerns review of later stages of language acquisition, description and management of semantic, syntactic, and pragmatic language disorders in the older child. (*Prerequisites: CD 290, CD 312*)

CD 554 Organic Communication Disorders in Children (3 crs.)

This course will cover organic bases of communication disorders in children such as cleft palate and orofacial anomalies, and other contemporary problems. (*Prerequisites CD 290, CD 312, CD 313, CD 325*)

CD 557 Fluency Disorders: Theory and Therapy (3 crs.)

A survey of stuttering theories and diagnostic/intervention techniques. (*Prerequisite: CD 220*)

CD 558 Aphasia in Adults (3 crs.)

Consideration of neuroanatomy, etiologies, characteristic language speech disorders, psychological correlates, classification systems, and diagnostic and rehabilitation procedures. (*Prerequisite: CD 220, CD 281, CD 282, CD 290, CD 312, CD 313, CD 325*)

CD 590 Nonverbal and Augmentative Communication Systems (3 crs.)

The course will address theoretical and pragmatic issues in client assessment, augmentative system selection and therapy procedures for implementation. A variety of nonverbal and augmentative communication systems will be reviewed including manual and computer assisted orthographic, word unit and compound systems. (*Prerequisite: CD 290, CD 313*)

CD 595 Advanced Assessment and Interpretation of Communication Disorders (3 crs.)

Advanced diagnostic procedures appropriate to neurophysiological, and psychologically-based disorders of communication. (*Prerequisite: CD 455, CD 490*)

CD 596 Graduate Clinical Practicum I: Speech Pathology (1-6 crs.)

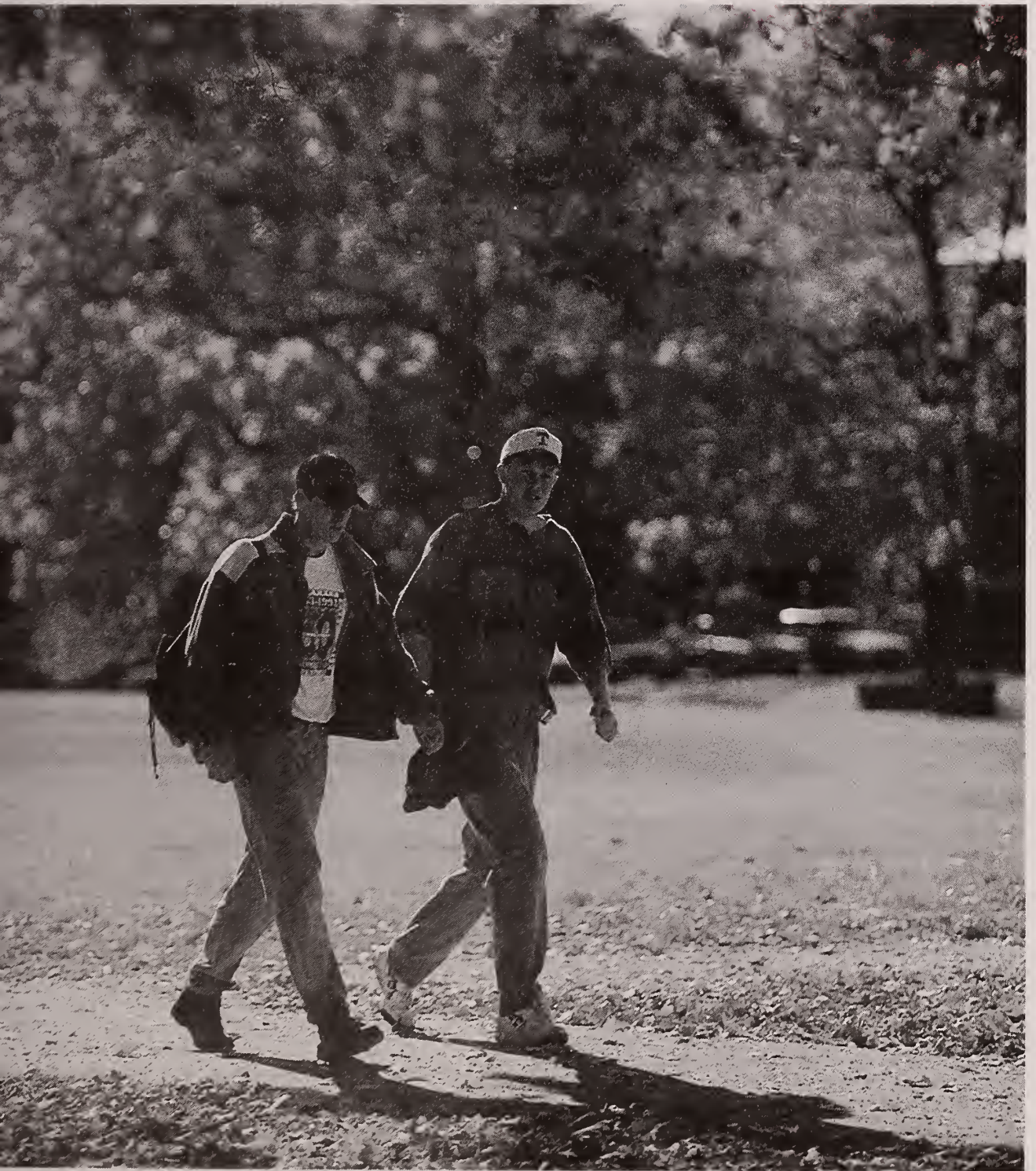
Advanced practicum under the direction of college staff. May be repeated once. (*Prerequisite: consent of the instructor*)

CD 597 Graduate Clinical Practicum II: Speech Pathology (1-15 crs.)

Advanced practicum in clinical settings with a focus on communication disorders in children and adults. May be repeated. (*Prerequisite: CD 596 or consent of the instructor*)

CD 599 Topical Studies in Communication Disorders (3 crs.)

Variable topics, issues and contemporary research in speech pathology and audiology. (*Prerequisite: consent of the instructor*)



School of Management & Aviation Science

Dr. Laurence Richards

Dean, School of Management & Aviation Science

Academic Departments:

Management

Professor Mercer Fellouris, Chairperson

Accounting & Finance

Professor Carleton Donchess, Chairperson

Aviation Science

Professor Veronica Cote, Chairperson

School of Management & Aviation Science

On September 2, 1997, the School of Management and Aviation Science officially opened for business at Bridgewater State College. The programs of the school, however, date back to the early 1980's. The success of those programs led to the need for a new school to manage rapid growth in enrollments and to focus attention on the high quality of professional education offered.

The school consists of three departments: Management, Accounting and Finance, and Aviation Science. The Management programs include concentrations in General Management (Human Resources & Operations), Energy & Environmental Resources Management, Global Management, Information Systems Management, Marketing, and Transportation. Experiential courses and internships offer students the opportunity to work on projects with companies and businesses. The structured programs in Accounting and Finance offer curricula which prepare students for rigorous professional certification examinations such as the CPA, CMA, CFA, CFP and CIA. Bridgewater State College students frequently win statewide competitions and are often cited by the Massachusetts Society of CPAs for their excellent work. Many of the region's top firms actively

recruit Accounting and Finance and Management graduates. The Aviation Science programs are unique among public institutions on the eastern seaboard of the United States and attract numerous students from foreign countries. The Flight Training concentration takes a student through commercial licensing and flight instructor certification. The Aviation Management concentration includes private pilot licensing and prepares students for careers with airlines, airports, airplane companies, government agencies, and other aviation support services. The rich liberal arts tradition that is the hallmark of Bridgewater State College embeds all of the school's programs.

The faculty of the school place high priority on providing a friendly and stimulating learning environment for their students. Class sizes are relatively small, and the quality of teaching is among the best of any college or university in the country. Students develop competency in oral and written communications, analytical thinking and problem solving, and teamwork. The school offers courses during the day and in the evening. Qualified students may register for undergraduate and graduate certificates in such fields as marketing management, information systems management, accounting and finance as alternatives to degree programs. Graduate degree programs will be added in the near future. The school also offers minors in Management Science and Aviation Science, and collaborates with other departments in offering interdisciplinary minors in Public Relations and Health Resources Management. Students with interests in research have the opportunity to work on faculty projects that are advancing the state of knowledge in their disciplines. The themes of leadership, technology, and internationalization serve as integrating threads that tie together all of Bridgewater State College's programs.

Department of Management

Faculty

Chairperson: Professor Mercer Fellouris

Professors: Jon Bryan, Craig Cowles,
Sylvia Keyes, Laurence Richards,
Frederick Sheppard, Frank Sterrett

Associate

Professors: Helene Fine, Peter Georgelas,
Mary Ann Robbert

Assistant

Professor: Steven White



Undergraduate Programs

Bachelor of Science in Management Science

The Management concentrations are designed to educate students for successful careers in business and management. The program provides general education, other liberal arts courses, and specific management education for students with career interests in general business, transportation, energy and environmental resources, marketing, global management, information systems, human resources and operations management.

Because the major is conducted within a strong liberal arts framework, students are encouraged to understand how business decisions relate to society—culturally, economically, ethically, and socially—while developing the skills and knowledge that will enable them to assume management responsibilities.

Students who enroll in the Management program may gain experience through internships that provide practical, on-the-job training opportunities. These valuable learning experiences, coupled with the college's development as a regional resource for business and industry, offer students significant contact with business and management leaders.

General Management Concentration

AF 240 Accounting I
AF 241 Accounting II
AF 305 Business Law I
AF 350 Managerial Accounting I
AF 385 Managerial Finance
MG 130 Principles of Management
MG 140 Human Resources Management
MG 200 Marketing Principles
MG 360 Business Data Processing
MG 425 Operations Management
MG 490 Management Seminar
EC 101 Principles of Microeconomics
EC 102 Principles of Macroeconomics
MA 141-142 Elements of Calculus I-II
MA 110 Elementary Statistics I
MA 318 Quantitative Methods for Management
CS 105 Computers and Their Applications: An Introduction

Choose one option:

Operations Option

MG 340 Labor Relations
MG 470 Materials Management
MG 475 Statistical Process Control

Human Resources Option

PY 313 Psychology of Organizations
MG 340 Labor Relations
MG 375 Personnel Development

*School of Management & Aviation Science***Energy and Environmental Resources Management
Concentration**

AF 240 Accounting I
AF 241 Accounting II
AF 305 Business Law I
AF 350 Managerial Accounting I
AF 385 Managerial Finance
CH 131 General Chemistry with Quantitative Analysis I
CH 132 General Chemistry with Quantitative Analysis II
CH 250 Instrumentation
CS 105 Computers and Their Applications: An Introduction
EC 101 Principles of Microeconomics I
EC 102 Principles of Macroeconomics II
ES 100 Physical Geology
ES 194 Environmental Geology
ES 240 Hydrology
GE 100 Physical Geography
GE 307 Management and Preservation of
Natural Environment
MA 110 Elementary Statistics I
MA 141-142 Calculus I-II
MA 318 Quantitative Methods for Management
MG 130 Principles of Management
MG 140 Human Resources Management
MG 200 Marketing Principles
MG 360 Business Data Processing
MG 460 Public Policy and Government Regulation
in Global Management
MG 490 Management Seminar
PH 180 Energy and Its Social Uses

Global Management Concentration

AF 240 Accounting I
AF 241 Accounting II
AF 305 Business Law I
AF 350 Managerial Accounting
AF 385 Managerial Finance
AF 455 International Finance
CC 365 Introduction to Intercultural Communication
CS 105 Computers and Their Applications: An Introduction
EC 101 Principles of Microeconomics
EC 102 Principles of Macroeconomics
EC 321 International Economics
MG 130 Principles of Management
MG 140 Human Resources Management
MG 200 Marketing Principles
MG 360 Business Data Processing
MG 410 International Marketing and Physical Distribution
MG 460 Public Policy and Government Regulation
in Global Management
MG 490 Management Seminar

MA 110 Elementary Statistics
MA 141-142 Elements of Calculus I-II
MA 318 Quantitative Methods for Management
PO 260 International Relations
4 semesters of a foreign language (12 credits)

Information Systems Management Concentration

AF 240 Accounting I
AF 241 Accounting II
AF 305 Business Law I
AF 350 Managerial Accounting I
AF 385 Managerial Finance
CS 101 Computer Science I
CS 102 Computer Science II
CS 210 COBOL Programming I
CS 211 COBOL Programming II
CS 410 Database Applications
EC 101 Principles of Microeconomics
EC 102 Principles of Macroeconomics
MG 130 Principles of Management
MG 140 Human Resources Management
MG 200 Marketing Principles
MG 360 Business Data Processing
MG 445 Information Systems Management
MG 450 Problems in Information Systems
MG 480 Systems Analysis
MG 490 Management Seminar
MA 110 Elementary Statistics I
MA 141-142 Elements of Calculus I-II
MA 318 Quantitative Methods for Management

Marketing Concentration

AF 240 Accounting I
AF 241 Accounting II
AF 305 Business Law I
AF 350 Managerial Accounting I
AF 385 Managerial Finance
CS 105 Computers and Their Applications: An Introduction
EC 101 Principles of Microeconomics
EC 102 Principles of Macroeconomics
MG 130 Principles of Management
MG 140 Human Resources Management
MG 200 Marketing Principles
MG 360 Business Data Processing
MG 420 Marketing Research
MG 424 Advertising
MG 430 Sales Management
MG 490 Management Seminar
MG 494 Marketing Management and Strategy

MA 141-142 Elements of Calculus I-II
 MA 110 Elementary Statistics I
 MA 318 Quantitative Methods for Management

And any one of:

MG 415 Retail Management
 MG 410 International Marketing and Physical Distribution
 or
 MG 440 Industrial Marketing

Transportation Concentration

AF 240 Accounting I
 AF 241 Accounting II
 AF 305 Business Law I
 AF 350 Managerial Accounting I
 AF 385 Managerial Finance
 CS 105 Computers and Their Applications: An Introduction
 EC 101 Principles of Microeconomics
 EC 102 Principles of Macroeconomics
 MA 141-142 Elements of Calculus I-II
 MA 110 Elementary Statistics I
 MG 130 Principles of Management
 MG 140 Human Resources Management
 MG 200 Marketing Principles
 MG 360 Business Data Processing
 MG 490 Management Seminar
 Any one CS programming course
 ES 100 Physical Geology
 or
 GE 100 Physical Geography
 GE 216 Cartography
 GS 353 Urban Geography
 GS 362 Economic Geography
 GS 430 Geography of Transportation
 PO 279 Introduction to Public Administration
 PO 376 Urban Politics
 SO 306 Urban Sociology

Management Science Minor

Students from liberal arts and other programs may elect this minor to broaden their background and expand their potential in job related areas of their respective disciplines. The central purpose of this minor is to provide initial exposure to the basic areas of business and the environment of the business world.

Required courses:

AF 240 Accounting I
 MG 130 Principles of Management
 MG 200 Marketing Principles

Plus three additional electives from any AF or MG course for

which prerequisites have been completed.

Only one economics course (either EC 101 Principles of Microeconomics or EC 102 Principles of Macroeconomics) may be used toward the completion of these three required electives.

Transfer of Credit After Admission

In order for undergraduates to receive credit for courses taken at other accredited institutions, approval must be obtained in advance.

Application forms are available in the Office of Student Records and Registration. Applications for approval of a course from another institution should be accompanied by the appropriate catalog from that institution. Transcripts of these approved courses must be submitted to the Office of Student Records and Registration within six weeks after the completion of the course. Approval must be obtained prior to registering for class. It is the student's responsibility to have official transcripts sent directly by the institution to the Office of Student Records and Registration.

School of Management & Aviation Science

Course Offerings*

MG 130 Principles of Management (3 crs.)

The principles and techniques underlying the successful organization and management of business activities. This course combines the traditional analysis of management principles with the behavioral approach to case studies. The study includes the management functions of planning, organization, leadership, staffing control, and the decision-making process. Three lectures weekly. *Either semester*

Note: MG 130 is prerequisite to all other Management courses.

MG 135-136 Freshman Honors Colloquium (1 cr. each semester)

Freshman Honors Colloquia in Management Science allow exceptionally able students to explore a challenging topic in small classes under close faculty supervision. Colloquia meet once a week for fifty minutes and culminate in a paper or scientific project which provides the major part of the grade. Open to All-College Honors students and to others at the discretion of the instructor. The minimum enrollment is two and the maximum is twelve. Topics vary from semester to semester. *(Prerequisite: consent of the instructor) MG 135 Fall semester, MG 136 Spring semester*

MG 140 Human Resources Management (3 crs.)

A study of the staffing, compensation systems, individual and group behavior, employee development, and human resource management systems. Three lectures weekly. *(Prerequisite: MG 130) Either semester*

MG 200 Marketing Principles (3 crs.)

Develops students' understanding of the marketing function of an organization through: a survey of the history of marketing from its inception as distribution through the marketing concept being implemented in the 1980's; in-depth study of the elements of the marketing mix (product, price, place, and promotion); impact of external legal, political, sociological, and technological forces upon the marketing manager; and the structure and placement of the marketing organization presented through lecture, case study, and projects. *(Prerequisite: MG 130, and EC 101 or EC 102 or consent of the department) Either semester*

MG 286-287 Sophomore Honors Colloquium (1 cr. each semester)

Sophomore Honors Colloquia in Management Science allow exceptionally able students to explore a challenging topic in small classes under close faculty supervision. Colloquia meet once a week for fifty minutes and culminate in a paper or scientific project which provides the major part of the grade. Open to All-College Honors students and to others at the discretion of the instructor. The minimum enrollment is two and the maximum is twelve. Topics vary from semester to semester. *(Prerequisite: consent of the instructor) MG 286 Fall semester, MG 287 Spring semester*

MG 325 Marketing and Sales Promotion: Industrial and Service Sector (3 crs.)

This upper-level elective course is for students who wish to develop promotional skills in a variety of specialized areas. Actual organizational case problems will be addressed. Projects will provide experience in all aspects of promotion with exposure to campaign propos-

als, incentives, trade show preparation and implementation, personal selling of services, media choice and related preparation. Students will have the opportunity for hands-on experience with trade shows, professional journal advertising, community relations work, and media personnel. *(Prerequisites: MG 200, CC 130) Spring semester*

MG 340 Labor Relations (3 crs.)

The course examines the background, philosophy, and structure of collective bargaining. Emphasis is placed upon the processes of negotiations, and administration of labor agreements. Case analyses dealing with problems involving unions, employers, and governments are reviewed and analyzed. *(Prerequisites: MG 130, MG 140) Spring semester*

MG 360 Business Data Processing (3 crs.)

An introduction to data processing from manual systems to computers, recent developments in the field, the equipment involved, how the equipment is used, how it operates, and the application of data processing systems will be covered. The course will aid students in applying the capabilities of the computer to their fields of study. *(Prerequisite: CS 105 or CS 101) Either semester*

MG 375 Personnel Development (3 crs.)

The course introduces the student to the concepts of industrial and service training and will focus on the skills needed to perform the four roles of the training and development function: administrator, consultant, designer of learning experiences and instructor. *(Prerequisite: MG 140)*

MG 380 Decision Support Systems (3 crs.)

An analysis of the highest level of information support systems which serve the manager user. Theoretical concepts will be applied to real-world applications. *(Prerequisite: MG 360) Offered alternate semesters*

MG 399 Special Topics in Management (3 crs.)

Special topics will be offered in business, management, and allied subjects.

MG 410 International Marketing and Physical Distribution (3 crs.)

An examination of the concepts and practices of marketing management in the international and multinational settings, including all aspects of product distribution and control. *(Prerequisite: MG 200) Spring semester*

MG 415 Retail Management (3 crs.)

An analysis of retail principles with emphasis on organization, consumer demand, store layout, buying merchandise, control and turnover of stock and retail sales promotion. The case method is utilized. *(Prerequisite: MG 200) Spring semester*

MG 420 Marketing Research (3 crs.)

An examination of the market research process used in approaching contemporary marketing problems. Emphasis is placed on the current status of research techniques and their applications. *(Prerequisite: MG 200, MA 110) Spring semester*

MG 424 Advertising (3 crs.)

A comprehensive survey of advertising and its applications in business and society. Among the topics considered are an historical survey of advertising, regulation of advertising, buyer behavior, advertising agencies, advertising media, copy and campaign management. *(Prerequisite: MG 200) Fall semester*

* See page 73 for general information regarding course offerings.

MG 425 Operations Management (3 crs.)

This course acquaints the student with the basic principles and methods of production management and control as well as the qualitative and quantitative approaches to problem solving in the production management area. (*Prerequisite: MA 318 or consent of the instructor*) Spring semester

MG 430 Sales Management (3 crs.)

Sales programs must be formulated and then implemented. In this age of accelerating product complexity, this course will deal with the sales manager who must understand the importance of these major responsibilities. (*Prerequisite: MG 200*) Fall semester

MG 435 Small Business Management (3 crs.)

This course provides the student with an understanding of the unique characteristics required of the successful small business entrepreneur and the specifics relative to the start-up, financing and management of a small business. (*Prerequisite: MG 130 and AF 240*) Fall semester

MG 440 Industrial Marketing (3 crs.)

A study of contemporary market strategy techniques in industrial companies. Emphasis is placed on the case approach where students are provided an opportunity to develop strategies in response to given market opportunities and competitive behavior. (*Prerequisite: MG 200*) Fall semester

MG 445 Information Systems Management (3 crs.)

A course designed to equip students as future users of information systems. It deals with systems issues and management of the computer resource. It assumes only minimal technical background and prepares the student to make decisions on the acquisition of equipment, system analysis and related topics. "Management Problems" are used to relate course material to managerially-oriented decisions. (*Prerequisite: MG 360*) Spring semester

MG 450 Problems in Information Systems (3 crs.)

The content of this course varies. It is intended to introduce the student to significant topics which are not normally offered as separate courses. (*Prerequisite: approval of the department*)

MG 460 Public Policy and Government Regulation in Global Management (3 crs.)

The increasing globalization of business raises new concerns for corporate management. To operate successfully in this new environment, management needs to have a thorough understanding of the public policy, government regulations, and ethical considerations that apply throughout the industrialized world. This course addresses those areas of concern. (*Prerequisites: MG 130, MG 140, AF 305*) Spring semester

MG 470 Materials Management (3 crs.)

All aspects of materials management, including procurement, material requirements planning, capacity, requirements planning, forecasting and inventory management, as applied in both manufacturing and non-manufacturing business environments, are presented for analysis and discussion. (*Prerequisite: MG 425 or consent of instructor*) Spring semester

MG 475 Statistical Process Control (3 crs.)

The application of statistical methods to the control of product quality

and process efficiency is increasingly important in both product manufacturing and in the service industries. Statistical lot sampling plans, statistical process control limits and the collection and evaluation of process performance data are presented in this course. (*Prerequisite: MG 425*)

MG 480 Systems Analysis (3 crs.)

Studies systems analysis and the use of quantitative models and the computer in solving managerial problems in a variety of functional areas. The course introduces systems and models and the stages of a systems-analysis approach and provides an overview of systems applications at functional areas and computer techniques for systems, implementation in finance, operations and marketing. (*Prerequisite: MG 360, MG 445*) Fall semester

MG 485 Honors Thesis (3 crs.)

This course is open to All-College and Departmental Honors students. One-hour weekly meetings with the thesis director will culminate in an honors thesis. With the consent of the Departmental Honors Committee and the thesis director, this course may be extended into a second semester for three additional credits depending upon the scope of the project.

MG 490 Management Seminar (3 crs.)

Reading and discussion of important research and literature in student's particular field of interest, culminating in a major written paper. (*Prerequisite: Open to all Management Science seniors in the final semester of the program*) Either semester

MG 494 Marketing Management and Strategy (3 crs.)

Teaches the principles of formulating a marketing program. The course demonstrates how and why marketing programs are affected by the marketing forces that bear on the firm while remaining consistent with the needs of the target market segment. (*Prerequisite: Open to all Management Science seniors in the final semester of the program, MG 200 plus two other marketing courses*) Spring semester

MG 498 Internship in Management (3-15 crs.)

A non-classroom experience designed for a limited number of junior and senior majors to complement their academic preparation. (*Prerequisite: consent of the department chairperson; formal application required*) Either semester

MG 499 Directed Study in Management (1-3 crs.)

Open to junior and senior majors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits. (*Prerequisite: consent of the department; formal application required*) Either semester

Department of Accounting & Finance

Faculty

Chairperson: Professor Carleton Donchess

Professors: Saul Auslander, Kathleen Sevigny,
Harold Silverman, Joseph Stanford



Undergraduate Programs

Bachelor of Science in Management Science

Accounting Concentration

The Accounting concentration prepares students for a variety of positions leading to management level careers in corporate and public accounting, auditing and taxation. This concentration will also assist in preparing students for the Certified Public Accountant (CPA) exam or the Certified Management Accounting (CMA) exam.

Finance Concentration

The Finance concentration prepares students for positions in banking, investments, financial planning, cash management and international finance in both public and private institutions. This concentration will also assist in preparing students for professional certifications such as the Certified Financial Planner (CFP) or Chartered Financial Analyst (CFA).

Accounting Concentration

AF 240 Accounting I
AF 241 Accounting II
AF 340 Intermediate Accounting I

AF 341 Intermediate Accounting II
AF 430 Cost Accounting
AF 445 Auditing
AF 460 Advanced Accounting I
AF 470 Accounting Information Systems
AF 492 Accounting Theory
MG 130 Principles of Management
MG 140 Human Resources Management
MG 200 Marketing Principles
MG 490 Management Seminar
AF 305 Business Law I
AF 385 Managerial Finance
AF 406 Business Law II
AF 466 Federal Income Taxation I
EC 101 Principles of Microeconomics
EC 102 Principles of Macroeconomics
MA 110 Elementary Statistics I
MA 141-142 Elements of Calculus I-II
MA 318 Quantitative Methods for Management
CS 105 Computers and Their Applications: An Introduction

Finance Concentration

AF 240 Accounting I
AF 241 Accounting II
AF 305 Business Law I
AF 350 Managerial Accounting I
AF 385 Managerial Finance

AF 406 Business Law II
AF 455 International Finance
AF 465 Options and Futures Market
AF 476 Insurance and Risk Management
AF 485 Capital Budgeting
AF 486 Real Estate Investment and Finance
AF 490 Investments
EC 101 Principles of Microeconomics
EC 102 Principles of Macroeconomics
EC 315 Money and Banking
MA 110 Elementary Statistics I
MA 141-142 Elements of Calculus I-II
MA 318 Quantitative Methods for Management
CS 105 Computers and Their Applications: An Introduction
MG 130 Principles of Management
MG 140 Human Resources Management
MG 200 Marketing Principles
MG 360 Business Data Processing
MG 490 Management Seminar

Transfer of Credit after Admission

In order for undergraduates to receive credit for courses taken at other accredited institutions, approval must be obtained in advance.

Application forms are available in the Office of Student Records and Registration. Applications for approval of a course from another institution should be accompanied by the appropriate catalog from that institution. Transcripts of these approved courses must be submitted to the Office of Student Records and Registration within six weeks after the completion of the course. Approval must be obtained prior to registering for class. It is the student's responsibility to have official transcripts sent directly by the institution to the Office of Student Records and Registration.

School of Management & Aviation Science

Course Offerings*

AF 150 Personal Finance (3 crs.)

The course examines a range of alternative investments with regard to risk and liquidity. It analyzes and compares such investments as real estate, business ownership, securities and other investment types, considering the effects of taxation and inflation. *Fall semester*

AF 240 Accounting I (3 crs.)

Preparation of accounting statements; cash receivables, liabilities and inventory valuation; corporate financial reporting. Does not satisfy GERs. *Either semester*

AF 241 Accounting II (3 crs.)

Investments, fund and cash flow analysis, budgetary control, introduction to cost accounting. Does not satisfy GER's. *(Prerequisite: AF 240) Either semester*

AF 305 Business Law I (3 crs.)

A comprehensive study of law and the judicial process; the legal relationships among man, society and the business community; an analysis of the concept and legal consequences of contracts; business torts and crimes; consumer protection; personal property and bailments recovered. *Either semester*

AF 331 Cost Accounting II (3 crs.)

A continuation of Cost Accounting I. Additional study of process cost systems, in-depth study of variance analysis, in-depth study of performance measurement, transfer pricing, accounting for by-products and spoilage. The course will also introduce capital budget concepts. *(Prerequisite: AF 430) Spring semester*

AF 340 Intermediate Accounting I (3 crs.)

Basic accounting principles are reviewed. The income and statement of financial position are reviewed in depth. Cash and temporary investments, receivables, inventories, long-term investments, plant and equipment and intangible assets are studied. *(Prerequisite: AF 241) Fall semester*

AF 341 Intermediate Accounting II (3 crs.)

A continuation of AF 340. Includes such topics as inventory cost procedures, special valuation, estimating procedures, investments (stocks, bonds, land, building and equipment); the acquisition, use of retirement, depreciation and evaluation of equipment; current and long-term liabilities; retained earnings and capital stock. *(Prerequisite: AF 340) Spring semester*

AF 350 Managerial Accounting I (3 crs.)

This course presents the analysis and interpretation of accounting information: statement of changes in financial position; cost terms, cost-volume-profit relationships; break-even computations; product costing using the job order method; budgeting; responsibility accounting; standard costs; flexible budgets; and cost-behavior patterns. *(Prerequisite: AF 241 and CS 105 or a working knowledge of spreadsheets) Either semester*

AF 366 Advanced Taxation (3 crs.)

Examines in greater depth federal income tax law and regulations applicable to partnerships, corporations, and fiduciaries. Also covers federal gift and estate tax principles, reorganizations, personal holding companies and the accumulated earnings tax. Emphasizes tax planning, including timing of transactions, appropriate form of transactions, election of methods when alternative methods are made available under the law, and other lawful means to minimize the impact of taxation. Discusses procedures in the settlement of tax controversies. *(Prerequisite: AF 466) Fall semester*

AF 385 Managerial Finance (3 crs.)

Provides understanding of the finance function and the responsibilities of the financial manager. Develops concepts and tools for use in effective financial decision making and problem solving. Covers ratio analysis, funds, flow, forecasting, current assets management, budgeting, credit services, formation and cost of capital and impact of operating and financial leverages. *(Prerequisite: AF 241) Either semester*

AF 399 Special Topics in Accounting/Finance (3 crs.)

Special topics will be offered in accounting, finance, and related subjects.

AF 406 Business Law II (3 crs.)

A study of the basic legal principles encountered by management in the area of sales, commercial paper, agency, partnerships, corporations and government regulation of business. *(Prerequisite: AF 305) Spring semester*

AF 430 Cost Accounting I (3 crs.)

Basic cost concepts and cost procedures for manufacturing enterprises are studied. Job order product costing is emphasized. Topics include manufacturing cost-flow concepts, procedure and controls, factory and departmental burden rates, inventory-costing methods. *(Prerequisite: AF 241 and CS 105 or a working knowledge of spreadsheets) Fall semester*

AF 445 Auditing (3 crs.)

The qualifications and professional code of conduct of the auditor are discussed. Attention is then focused upon auditing procedures including the preparation of audit working papers and other steps required in the course of an audit. *(Prerequisite: AF 341; or may be taken concurrently with AF 341 with consent of the instructor) Spring semester*

AF 455 International Finance (3 crs.)

This course surveys the financial management of multinational corporations. After reviewing foreign exchange rate determinations, it then covers such timely topics as exchange risks, hedging, interest rate arbitrage, insurance and guarantee programs, and international capital markets. Analysis is made of multinational capital budgeting techniques, the cost of capital, and working capital management in a multinational corporate setting. *(Prerequisite: AF 385)*

AF 460 Advanced Accounting I (3 crs.)

A detailed study of partnerships and corporations including business combinations and segmental reporting of business entities. *(Prerequisite: AF 341) Fall semester*

* See page 73 for general information regarding course offerings.

Accounting & Finance

AF 465 Options and Futures Markets (3 crs.)

This course familiarizes the student with two little known but potentially titanic markets in the securities industry. Both options and futures are the wave of things to come. The course begins with an historical account of the origins of the two markets and then an examination of the mechanisms of both markets. Much time is spent on hedging techniques and on the application of futures contracts to the food industries, and to banking and life insurance. (Prerequisite: AF 385, AF 490) Spring semester

AF 466 Federal Income Taxation I (3 crs.)

Provides background in Federal Income Tax Law and the regulations of the Treasury Department. Deals primarily with the basic philosophy of taxation, taxable income, allowable deductions, and gains and losses in sales and exchanges of property for the individual taxpayer. Serves also as an introduction to the federal taxation of partnerships and corporations. Emphasizes preparation of federal income tax return and the development of the ability to utilize various references in dealing with tax accounting problems. Discusses tax planning. Fall semester

AF 470 Accounting Information Systems (3 crs.)

This course integrates accounting processes and procedures as they relate to the total information system. Students study the design and implementation of accounting related information systems. Topics include internal control, design of flow charts, data flow diagrams, computerized financial reporting, and the impact of the accounting function on various elements of the organization. It covers the purchase decision for hardware and software and related accounting considerations. Exposure to the latest accounting software packages will be presented. (Prerequisite: AF 341, CS 105)

AF 476 Insurance and Risk Management (3 crs.)

This course is designed to provide an understanding of the fundamental concepts of risk management in the areas of employee benefit programs, property damage and liability exposures and other business needs for insurance. The course will also provide an overview of the risk bearing industry, its function and importance, and its relevance in today's business markets. Emphasis will be on the insurance contracts themselves and the rating plans available. (Prerequisite: EC 101-102, AF 240-241, AF 385) Fall semester

AF 485 Capital Budgeting (3 crs.)

This course explores the decision processes involved in the securing of long term physical corporate assets, or in committed long term intangible assets, including spreadsheet analysis of cash flows, tax implications, decision making criteria, risk analysis, and the computation of cost of capital. (Prerequisite: AF 385) Spring semester

AF 486 Real Estate Investment and Finance (3 crs.)

This course is designed to provide a comprehensive overview of the subject of real estate finance, including such topics as valuation and appraisal, market analysis, mortgages, inflation effect on real estate markets, taxes, and legal considerations. This course will emphasize the fundamental theories that lead to current practice in today's market conditions and is designed for those finance majors interested in pursuing careers in real estate management, as well as those interested in broadening their understanding of this investment option. (Prerequisite: EC 101-102, AF 385)

AF 490 Investments (3 crs.)

Provides an understanding of the methods and techniques utilized in analyzing various securities for investment purposes. The importance of the business cycle, economy, and regulation is also addressed. (Prerequisite: AF 385) Spring semester

AF 492 Accounting Theory (3 crs.)

This course develops an understanding of generally accepted accounting principles along with the underlying concepts of the conventions of accounting. Emphasis is placed on current developments, recent FASB pronouncements and the role of the Securities Exchange Commission. The course will be augmented by visiting lecturers. (Prerequisite: AF 460) Spring semester

AF 498 Internship in Accounting (3-15 crs.)

A non-classroom experience designed for a limited number of junior and senior majors to complement their academic preparation. (Prerequisite: consent of the department chairperson; formal application required) Either semester

AF 499 Directed Study in Accounting (1-3 crs.)

Open to junior and senior majors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits. (Prerequisite: consent of the department; formal application required) Either semester

AF 510 Accounting for School Business Managers (3 crs.)

The intent of this course is to deepen the student's understanding and appreciation for the role that accounting in not-for-profit/municipal settings plays in the daily running of school systems and individual schools. Accounting principles, basics, and uses in the public school financing arena will be covered as well as liabilities, inventories, payroll, audits, and the state school accounting systems with its year-end reports.

AF 511 Principles of Finance for School Business Administration (3 crs.)

The intent of this course is to deepen the student's understanding and appreciation for the role that effective financial management in not-for-profit/municipal settings plays in the daily running of school systems and individual schools. Principles of managerial finance, including financial markets, time value of money, business, financial analysis and planning, and the management of current assets will be covered.

Department of Aviation Science

Faculty

Chairperson: Assistant Professor Veronica Cote

Assistant

Professors: Michael Farley, Ro Terry Millanette
Michael Sloan

Undergraduate Programs

Bachelor of Science in Aviation Science

The Aviation Science Program combines liberal arts with concentrations in either *Flight Training* or *Aviation Management*. This major leads to a degree of Bachelor of Science or Bachelor of Arts. Students interested in future positions in industry-related aviation, especially as either pilots or as managers, benefit from this program. Bridgewater State College is recognized by the Federal Aviation Administration as an Aviation Education Resource Center. Numerous other careers may be realized from either of these concentrations and other options provided by the Aviation Science Program including:

Air Force Reserve Officer Training Corps (ROTC) — an educational program designed to give men and women the opportunity to become an Air Force officer while completing a bachelor's degree program. The Air Force ROTC program is designed to prepare students to assume positions of increasing responsibility and importance in the Air Force.

In addition, Air Force ROTC full and partial scholarships are available to students who qualify. During the junior and senior years, ROTC cadets are paid monthly stipends. (See the Financial Aid section of this catalog for further information)

Federal Aviation Administration (FAA) Airway Science Curriculum approval has been awarded to Bridgewater State College. Students who complete this curriculum, along with the requirements for a bachelor's degree in Aviation Science, qualify for preferential status for subsequent employment with the FAA.

Federal Aviation Administration Certification of Bridgewater State College as a Federal Air Regulation (FAR) Part 141 ground school allows students to complete all required ground school courses at the college as part of the Aviation Science curriculum and at no additional tuition.

The Bridgewater State College Aviation Science program incorporates single engine and multi-engine flight simulator training into its flight training courses. For complete informa-



tion on these programs consult with Professor Veronica Cote, chairperson of the Aviation Science Department.

Flight Training Concentration*

- AS 101 Primary Flight I
- AS 102 Primary Flight II
- AS 103 Primary Flight III
- AS 105 Private Pilot Ground School
- AS 201 Commercial Flight I
- AS 202 Commercial Flight II
- AS 203 Commercial Flight III
- AS 204 Commercial Flight IV
- AS 205 Commercial Flight V
- AS 211 Commercial Pilot Ground School
- AS 212 Instrument Pilot Ground School
- AS 301 Instructional Flight I
- AS 302 Instructional Flight II
- AS 303 Flight Instructor Ground School
- AS 305 Introduction to Aviation Management
- AS 306 General Aviation Operations
- MG 130 Principles of Management
- MG 140 Human Resources Management
- MA 141-142 Elements of Calculus I-II
- MA 110 Elementary Statistics I
- PH 181-182 Elements of Physics I-II
- CS 105 Computers and Their Applications: An Introduction
- EC 102 Principles of Macroeconomics

*Please note that flight courses involve flight fees.

Aviation Management Concentration*

AS 101 Primary Flight I
 AS 102 Primary Flight II
 AS 103 Primary Flight III
 AS 105 Private Pilot Ground School
 AS 305 Introduction to Aviation Management
 AS 306 General Aviation Operations
 AS 307 Air Transportation
 AS 308 Airline Operations
 AS 402 Insurance and Legal Aspects of Business Aviation
 AS 407 Aviation Marketing Management
 MG 130 Principles of Management
 MG 140 Human Resources Management
 MG 360 Business Data Processing
 MA 141-142 Elements of Calculus I-II
 MA 110 Elementary Statistics I
 PH 181-182 Elements of Physics I-II
 CS 105 Computers and Their Applications: An Introduction
 EN 201 Technical Writing
 EC 102 Principles of Macroeconomics
 AF 240-241 Accounting I-II
 One environmental science course

**Please note that flight courses involve flight fees.*

Aviation Science Minor*

The minor is divided into two options: a *Flight Option* and an *Aviation Management Option*.

Flight Option:

AS 101 Primary Flight I
 AS 102 Primary Flight II
 AS 103 Primary Flight III
 AS 105 Private Pilot Ground School
 MG 130 Principles of Management
 Plus electives selected from list below. A minor requires a minimum of 18 credit hours.

Aviation Management Option:

AS 305 Introduction to Aviation Management
 MG 130 Principles of Management
 MG 140 Human Resources Management
 plus electives selected from the list below. A minor requires a minimum of 18 credit hours.

Electives:

AS 101 Primary Flight I
 AS 102 Primary Flight II
 AS 103 Primary Flight III
 AS 105 Private Pilot Ground School
 AS 201 Commercial Flight I
 AS 202 Commercial Flight II
 AS 203 Commercial Flight III

AS 204 Commercial Flight IV
 AS 205 Commercial Flight V
 AS 211 Commercial Pilot Ground School
 AS 212 Instrument Pilot Ground School
 AS 301 Instructional Flight I
 AS 302 Instructional Flight II
 AS 303 Flight Instructor Ground School
 AS 305 Introduction to Aviation Management
 AS 306 General Aviation Operations
 AS 307 Air Transportation
 AS 402 Insurance and Legal Aspects of Business Aviation
 AS 407 Aviation Marketing Management
 MG 140 Human Resources Management

**Please note that flight courses involve flight fees.*

Flight Training and Ground School:

Students enrolled in the Aviation Science Program must take all flight and flight-related courses through Bridgewater State College. Flight training is provided by cooperating Federal Aviation Administration (FAA) approved flight schools which operate under Federal Aviation Regulation (FAR) Part 141. A list of cooperating flight schools may be obtained from the office of the coordinator of the Aviation Science Program. Ground School courses are conducted by the college under a FAA approved FAR Part 141 ground school as is the flight simulator training which is required of all Aviation Science majors as a part of the flight training courses.

Physical Examinations

Students seeking admission to the Flight Training Concentration must pass a Class II or better FAA physical examination; a Class III FAA physical is required for the Aviation Management Concentration or any other program involving flight courses. A copy of the certification for the appropriate flight physical must be on file with the Aviation Science Coordinator BEFORE FLIGHT TRAINING BEGINS.

Academic Credit for Flight Training

The following procedures for granting academic credit for flight and flight-related ground school training for both incoming freshman students and transfer students are in accord with pertinent college policies and are designed to promote academic quality and to maximize safety for the participants in the Aviation Science Program. All students requesting academic credit from Bridgewater State College for flight and flight-related ground school training are subject to these provisions. Credit for all other course work will be considered as specified in the college catalog under the sections concerning *Transfer Admissions* and *Transfer of Credit After Admission*.

School of Management & Aviation Science

Entering Freshmen and Transfer Students

Freshmen or transfer students entering Bridgewater State College may request up to eighteen (18) credits for previous work in flight and flight-related ground school training under the following provisions:

1. To obtain credit for flight training, the student must: (a) provide valid documentation* of the flight training concerned, (b) hold a current, appropriate flight physical certificate, and (c) pass a flight proficiency test conducted by an Aviation Science Program flight instructor. (Additional flight training may be required if a student has difficulty passing the flight proficiency test.) All costs for the flight proficiency test (and any additional flight training) will be borne by the applicant.
2. Credit for training in FAA certified ground schools may be obtained by providing valid documentation* of the training concerned.

*Valid documentation includes pertinent log books and other certificates, licenses, and verification of the training from the school(s) concerned. This verification must be in the form of a statement which identifies the school, describes the curriculum under which the training was taken, and specifies the number of class hours involved. The statement must be signed by the chief flight instructor of the school. (The standard ratio for relating hours to academic credit is 18 class hours of flight training for one academic credit.) Full credit will be granted for courses from flight schools operating under Federal Aviation Regulation (FAR) Part 141 curricula, and half credit for training from schools utilizing the FAR Part 61 program.

Credit authorized by the above procedure for flight and flight-related ground school courses may be applied as follows:

Students entering the *Flight Training Concentration* may apply up to seventeen (17) credits toward the academic major; any additional authorized flight training credit will be designated as free electives. *At least fifty percent (50%) of the credits in any major field (major department) must be earned at Bridgewater State College.*

Students entering the *Aviation Management Concentration* may apply seven (7) academic credits toward the required private pilot's license; any additional credits may be used toward free electives *only*.

Students entering the *Aviation Science Minor* may apply nine (9) credits toward the minor; any balance may be credited toward free electives.

Students who *neither major nor minor in Aviation Science* may

be granted up to eighteen (18) academic credits toward free electives.

Authorized flight training credits specified above for the major, minor, and free electives may be applied toward the college graduation requirement of 120 credits (minimum).

Students Enrolled at Bridgewater State College:

After a student is officially enrolled at Bridgewater State College, academic credit from other institutions will be granted only as specified by college policy. Under special conditions where the college cannot provide the required course work, such as students being out of commuting range of the college during the summer, a student may apply for permission to earn credits at other institutions. The procedure which follows must be completed BEFORE courses are taken elsewhere. PERSONS (IN ANY MAJOR) WHO TAKE COURSES AT OTHER INSTITUTIONS/SCHOOLS WITHOUT FOLLOWING THIS PROCEDURE WILL NOT BE GRANTED CREDIT AT BRIDGEWATER STATE COLLEGE.

Procedure:

1. A form for requesting transfer credits may be obtained from the Office of Student Records and Registration.
2. The completed form, together with an identification of the proposed school and a description of the courses involved, must be submitted to the chairperson of the Aviation Science Department, or a designee, for departmental approval. The Aviation Science Program is based on the quality specified in the Federal Aviation Regulation Part 141, and credit will be accepted only from FAR Part 141 approved schools. Other documentation may be requested by the Aviation Chairperson.
3. Upon completion of courses taken at other institutions, students must satisfy the same conditions as set forth for entering freshmen and transfers, i.e., providing valid certification and passing a flight proficiency test, as described above.

The student is responsible for insuring that all transcripts, certificates, or other documentation are submitted to the Office of Student Records and Registration of Bridgewater State College, with copies to the Aviation Science coordinator, within six weeks after the completion of training. Official transcripts must be sent from the training institution *directly to Bridgewater State College. They must not be transported by the student.*

Please note: Additional detailed information on the Aviation Science Program is available. To receive a copy, call (508) 697-1237 or write Office of Admissions, Bridgewater State College, Bridgewater, Massachusetts 02325.

Course Offerings***AS 101 Primary Flight I (1 cr.)**

This course consists of flight instruction and ground tutoring necessary for the student to accomplish his or her first solo flight. Lessons include elements of flight principles, pre-and-post flight procedures, taxiing and ground handling, use of flight controls, basic maneuvers, take-offs and landings. Introduction to aircraft systems, radio communications, and air traffic control procedures. One two-hour lecture/demonstration period weekly for one quarter. (*Prerequisite or corequisite: AS 105*) Either semester

AS 102 Primary Flight II* (1 cr.)

This course is a continuation of Primary Flight I, designed to prepare the student for solo cross-country flight. Lessons provide greater proficiency in maneuvers, stalls, take-offs and landings, and emergency procedures. Introduction to night flight, various types of VFR navigation and VOR tracing. Flight planning, cross-country flying culminating in solo cross-country. One two-hour lecture/demonstration period weekly for one quarter. (*Prerequisite: AS 101*) Either semester

AS 103 Primary Flight III (1 cr.)

Continuation of Primary Flight II with emphasis on cross-country navigation, flying, flight planning, and solo practice to gain proficiency in all basic maneuvers. Lessons include VFR radio and navigation control of aircraft solely by reference to instruments. Private pilot qualifications are completed. One two-hour lecture/demonstration period weekly for one quarter. (*Prerequisite: AS 102*) Either semester

AS 105 Private Pilot Ground School (6 crs.)

Topics include basic performance and aerodynamics of the airplane, airplane structure and systems, flight control and instruments, weight and balance, airports, communications, air traffic control, meteorology, and Federal Aviation Regulations. Aeronautical charts, airspace, radio navigation including VOR, DME, ADF, radar and transponders A.I.M. are considered, as well as use of the flight computer, cross-country flight planning and medical factors of flight. Students who meet Federal Aviation Administration (FAA) requirements will be qualified to take the FAA written examination. Six lecture periods weekly. Either semester

AS 201 Commercial Flight I* (1 cr.)

Concentrated instruction and solo practice in precision flight maneuvers. Introduction to flight in complex aircraft, experience in night and cross-country flying. Three two-hour lecture/demonstration periods weekly for one quarter. (*Prerequisite: AS 201*) Either semester

AS 202 Commercial Flight II* (2 crs.)

This course is the first in the professional pilot training series. Lessons include a review of basic flight maneuvers, instructions and solo proficiency practice in advanced maneuvers, precision landings, take-off and landing techniques. Introduction to altitude instrument flying. One two-hour lecture/demonstration period weekly for one quarter. (*Prerequisite: AS 103, AS 105 and AS 211, which may be taken concurrently*) Either semester

AS 203 Commercial Flight III* (2 crs.)

Review and practice of basic and advanced flight maneuvers. Concentrated instrument flight instruction including IFR navigation, use of VOR, ADF, localizer, holding patterns, flight planning, procedures and regulations. Two two-hour lecture/demonstration periods weekly for one quarter. (*Prerequisite: AS 103, AS 105 and AS 212 which may be taken concurrently*) Either semester

AS 204 Commercial Flight IV* (2 crs.)

Review and practice of precision maneuvers. Continued instrument flight instruction with emphasis on aircraft control, IFR flight planning, departure, enroute, holding, and arrival procedures, instrument approaches, IFR procedures and regulations. Two two-hour lecture/demonstration periods weekly for one quarter. (*Prerequisite: AS 201, AS 202, AS 203, AS 204, AS 211 and AS 212*) Either semester

AS 205 Commercial Flight V* (1 cr.)

This course is the final stage of the commercial/instrument series, consisting of a complete review of all commercial maneuvers, instrument flying techniques, procedures, and regulations. Course culminates in recommendation for the FAA Commercial/Instrument Flight Test. One two-hour lecture/demonstration period weekly for one quarter. (*Prerequisite: AS 204, 211, 212*) Either semester

AS 211 Commercial Pilot Ground School (4 crs.)

Subject matter involves advanced treatment of the airplane systems, performance and control, the National Airspace System, Federal Aviation Regulations, meteorology, radio navigation, and the physiology of flight. Students who meet Federal Aviation Administration (FAA) requirements will be qualified to take the FAA written examination. Four lecture periods weekly. (*Prerequisite: AS 105 and FAA requirements*) Either semester

AS 212 Instrument Pilot Ground School (4 crs.)

Topics include discussion of aircraft environmental control systems and commercial flight planning, study of instrument flight charts, IFR departure, enroute, and approach procedures. FAR's, IFR Flight Planning. Students who meet Federal Aviation Administration (FAA) requirements will be qualified to take the FAA written examination. Four lecture periods weekly. (*Prerequisite: AS 105 and FAA requirements*) Either semester

AS 215 Single Engine Flight Simulator Instruction (1-3 crs.)

Single engine flight simulated instruction is conducted with the use of a flight simulator. The course content will be determined in accordance with the flight experience of the student. A student must enroll for a minimum of one credit. The course may be repeated for a maximum of three credits. (Fifteen hours of instruction are required for one credit.) (*Prerequisite: AS 105 or consent of the instructor*) Either semester

AS 216 National Airspace System (3 crs.)

An overview of the proposed National Airspace System. Examination is made of problems encountered in implementing the system, airspace allocation and usage, facilities, safety considerations, new developments in electronic navigation and control systems, economic impact, social and political implications. Three lectures weekly. Either semester

* See page 73 for general information regarding course offerings.

School of Management & Aviation Science**AS 217 Air Traffic Control (3 crs.)**

This course deals with the U.S. air traffic and airway system as it exists today. Topics of discussion will include: components of the system; air route traffic control centers; towers; flight service stations; navigational aids; and the low/high altitude Federal airway structure. *(Prerequisite: AS 105)*

AS 301 Instructional Flight I (2 crs.)

This course is the first stage of instruction to the Certified Flight Instructor Certification. Lessons include analysis of flight maneuvers, take-offs, landings, stalls, emergencies, procedures. Practice flight and ground instruction. Two two-hour lecture/demonstration periods weekly for one quarter. *(Prerequisite: AS 205) Either semester*

AS 302 Instructional Flight II (1 cr.)

Continuation of Instructional Flight I. Lessons include analysis and practice instruction of advanced maneuvers, altitude instrument flying, considerations of night flight, aircraft performance and control, spins, cross-country flight and navigation. Leads to certification by the FAA. One two-hour lecture/demonstration period weekly for one quarter. *(Prerequisite: AS 301, 303 — may be taken concurrently) Either semester*

AS 303 Flight Instructor Ground School (4 crs.)

Provides aviation instructors with easily understood learning and teaching information, and its use in their task of conveying aeronautical knowledge and skills to students. Topics include aspects of human behavior, teaching methods and communication, evaluation and criticism, instructional planning, instructor characteristics and responsibilities. Students who meet Federal Aviation Administration (FAA) requirements will be qualified to take the FAA written examination. Four lecture periods weekly. *(Prerequisite: AS 205 and FAA requirements) Either semester*

AS 305 Introduction to Aviation Management (3 crs.)

Survey of general aviation industry; basics of aircraft operations; marketing of products and services; legal aspects; physical facilities; major concentration will be placed on management and administration of a fixed base operation, duties and responsibilities of the airport manager and managerial considerations in all areas of general aviation. Three lectures weekly. *(Prerequisite: MG 130) Fall semester*

AS 306 General Aviation Operations (3 crs.)

This course is a combination of lecture and laboratory. Lectures deal with facilities, management, finance, legal and insurance aspects of general aviation. Laboratory sessions focus on sales, line service, air taxi, and flight school. One or more field trips to general aviation operations will be held. A semester project is required. One four-hour lecture/laboratory period weekly. *(Prerequisite: AS 305) Spring semester*

AS 307 Air Transportation (3 crs.)

This course covers development, regulation and administration of air transportation, economic information on airlines, alternate transportation modes and their effect on air transportation, contemporary problems of route congestion, pollution aspects, terminal capacity, ground support, changing trends in air freight, and new developments in air transportation regulations. Three lectures weekly. *(Prerequisite: MG 130) Fall semester*

AS 308 Airline Operations (3 crs.)

An in-depth study of U.S. air carrier operations. The economics, organization, and regulation of domestic air carriers are covered in detail. Field trips to the operational sites of major carriers. Air carrier training programs are explored in this course. Three lectures weekly. *(Prerequisite: AS 305) Spring semester*

AS 310 Aviation Science Safety (3 crs.)

The primary emphasis of this course is to instill safety consciousness. It encompasses the role of federal organizations involved with aviation safety and stresses their contributions to the aerospace industry. The course will explore flight physiology, utilization of aeronautical services and facilities, an historical perspective, and analyzing documented case studies. *(Prerequisite: AS 105) Either semester*

AS 316 Multi-Engine Flight Simulator Instruction (1-3 credits)

Multi-engine flight simulated instruction is conducted with the use of a flight simulator. The course content will be determined in accordance with the flight experience of the student. Students must enroll for a minimum of one credit. The course may be repeated for a maximum of three credits. (Fifteen hours of instruction are required for one credit.) *(Prerequisite: AS 413 or consent of the instructor) Either semester*

AS 399 Special Topics in Aviation (3 crs.)

This course will cover timely and important aviation issues not offered in other courses. Topics will change semester by semester. Course may be repeated with permission of department. *(Prerequisite: AS 105) Every semester*

AS 402 Insurance and Legal Aspects of Business Aviation (3 crs.)

An in-depth study of U.S. and international laws governing aviation. A survey of appropriate risk management policies of aviation. The case method is employed to present practical applications of principles under consideration. Three lectures weekly. *Fall semester*

AS 407 Aviation Marketing Management (3 crs.)

Selling and pricing business aviation services and creative marketing strategy are studied in an analytical approach to advertising, sales force administration, promotion, distribution, retailing, logistics, wholesaling, product planning, price policies, market research, and consumer behavior. Three lectures weekly. *Spring semester*

AS 411 Instrument Flight Instructor Ground School (2 crs.)

Techniques of teaching instrument flight, analysis of instrument maneuvers and approaches, enroute operations, and lesson planning. AS 411 will prepare students for the Federal Aviation Administration (FAA) instrument flight and ground instructor written examinations. Meets four hours per week for one quarter. *(Prerequisite: Commercial certificate with instrument rating; AS 303, which may be taken concurrently) Either semester*

AS 412 Instrument Flight Instructor Flight Training (2 crs.)

Teaching analysis of altitude instruments, instrument approaches, and enroute operations. This course will prepare students for the Federal Aviation Administration (FAA) practical test. Two two-hour lecture/demonstration periods weekly for one quarter. *(Prerequisite: AS 411) Either semester*

AS 413 Multi-Engine Rating Ground School (1 cr.)

This course prepares the prospective multi-engine pilot for the flight portion of the Federal Aviation Administration (FAA) multi-engine certification, including an in-depth study of multi-engine aerodynamics, systems, weight and balance, performance and emergencies. Meets two hours per week for one quarter. *(Prerequisite: commercial certificate with instrument rating) Either semester*

AS 414 Multi-Engine Flight Training (1 cr.)

This course prepares the prospective multi-engine pilot for the Federal Aviation Administration (FAA) multi-engine flight test. It includes multi-engine maneuvers, systems, weight and balance, and emergencies. One two-hour lecture/demonstration period weekly for one quarter. *(Prerequisite: AS 413) Either semester*

AS 415 Commuter Airline and Corporate Aviation Management (3 crs.)

This course provides an in-depth examination of the history and management practices of commuter airline and corporate aviation. Commuter airline certification, aircraft selection, and operations will be analyzed, as well as corporate flight department economics and operations. Three lectures weekly. *(Prerequisite: AS 305, AS 306) Either semester*

AS 416 Multi-Engine Instructor Ground School (2 crs.)

This course involves techniques of teaching multi-engine flight, multi-engine operations and systems, aerodynamics of multi-engine flight, environmental systems, and multi-engine airplane instruction. One two-hour lecture/demonstration period weekly. *(Prerequisite: FAA requirements) Either semester*

AS 417 Multi-Engine Instructor Flight Training (2 crs.)

This course covers the development of aeronautical skill and experience in multi-engine aircraft as well as acquisition of teaching proficiency from right seat of multi-engine airplane. One two-hour lecture/demonstration period weekly for one quarter. *(Prerequisite: Commercial certificate with multi-engine land rating, instrument rating, and valid flight instructor certificate) Either semester*

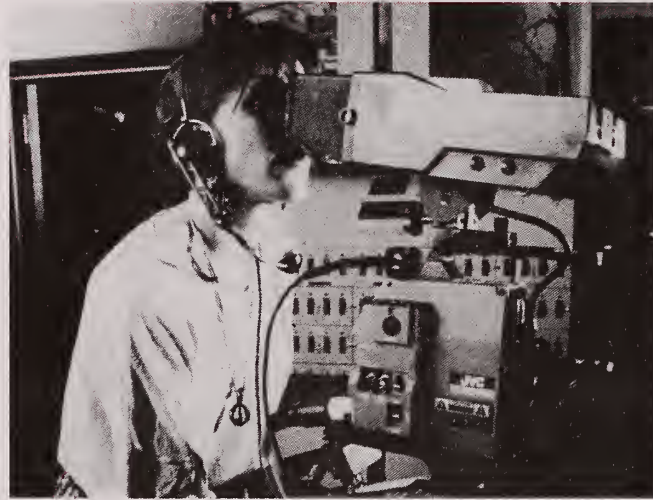
AS 498 Internship in Aviation Science (3-15 crs.)

Instructive endeavor in the aviation industry or an aviation related business which complements the academic program. *(Prerequisite: consent of the coordinator of Aviation Science; formal application is required) Either semester*

AS 499 Directed Study in Aviation Science (1-3 crs.)

Open to junior and senior majors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits. *(Prerequisite: consent of the department; formal application required) Either semester*

Interdisciplinary and Pre-Professional Programs



American Studies Minor

Designed to complement the student's major, this minor program examines the development of American society and culture from several perspectives. It features a study of the United States through a combination of relevant courses in a variety of academic areas: history, literature, art and architecture, philosophy, religion, political science and others. Through this interdisciplinary focus, the minor encourages an integrated and inclusive sense of the American experience.

The area around Bridgewater is rich in library and museum resources for American studies. In addition to the holdings of Boston-area colleges and universities, there are the collections of the Massachusetts Historical Society, the Pilgrim Museum, Plimouth Plantation, the Whaling Museum in New Bedford, Fuller Museum of Art, the Boston and Providence Athenaeums, the John Carter Brown Library and the Harris Collection at Brown University. Bridgewater itself has the Microbook Library of American Civilization and the PCMI humanities collection.

A student wishing to pursue a minor in American Studies will ordinarily be assigned an adviser from the American Studies Committee, and will be expected to take the following sequence of courses in the sophomore, junior and senior years:

Required Courses:

ID 220 Introduction to American Studies
ID 420 American Studies Seminar

Elective Courses: In consultation with an American Studies adviser, the student will choose a group of at least FOUR (4) additional courses in fields related to the program. Most likely these courses will be spread over the junior and senior years. At least TWO (2) of these additional courses must be chosen from disciplines outside the student's major.

For further information, interested students should contact the Department of English.

Canadian Studies Minor

The minor has been developed as an area study in response to faculty, student and regional interest. The national origins of a large portion of the population of southeastern Massachusetts reflect strong Canadian ties from both the French and English communities.

The program is designed to supplement and give a multicultural dimension to one's major by an in-depth study of our northern neighbor. The study is presented in the following academic areas: history, literature, geography, management, music, economics, sociology and political science.

Interdisciplinary and Pre-Professional Programs

Students may enter the Canadian Studies minor during the sophomore or junior year and will be assigned an adviser in their major fields, usually a member of the College Council for Canadian Studies.

In addition to ID 200, An Introduction to Canadian Studies, students in the program should select courses from those listed below.

- A. Three courses with one from each area:
1. Area of literature
 - EN 283 Major Canadian Writers in English I
 - EN 284 Major Canadian Writers in English II
 2. Area of history
 - HI 487 Canadian History to Confederation
 - HI 488 Canadian History since Confederation
 3. Area of geography or political science
 - GS 386 Geography of Canada
 - PO 386 Canadian Policies
- B. Two additional courses selected from the following list:
- GS 386 Geography of Canada
 - HI 487 Canadian History to Confederation
 - PO 386 Canadian Policies
 - MU 368 Folk Music of Canada
- C. One additional course:
- HI 489 History of Canadian-American Relations

Total of 18 credit hours.

Students in the minor are encouraged to have some familiarity with French.

For further details contact Professor Anthony Cicerone of the Department of Economics.

Chemistry-Geology Major

A major in Chemistry-Geology is offered jointly by the Department of Chemical Sciences and the Department of Earth Sciences and Geography. This program is designed to prepare students for graduate school and professional employment in geochemistry and geology. Careers in these fields may involve environmental consulting, 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 Chemical Principles I-II (or CH 131-132 General Chemistry I-II); ES 100 Physical Geology, ES 101 Historical Geology, ES 311 Geochemistry, and ES 372 Mineralogy. 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 or earth sciences, or mathematics or physics which have been approved by the student's adviser.

The Chemistry-Geology major at Bridgewater State College is recognized by the New England Regional Student 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, or Vermont accepted for study in this major will pay the in-state tuition rate plus surcharge tuition.

Dance Minor

The dance minor is an interdisciplinary program in the Theatre Arts and Physical Education programs. The objective is to give a solid liberal arts experience in the art of dance. The program includes the study of techniques of various styles of dance, dance history and theory, choreography and production.

Courses include:

- CT/PE 255 Creative Dance I
- CT/PE 256 Creative Dance II
- CT/PE 251 Dance History
- CT/PE 155 Dance Practicum (two semesters)
- CT/PE 357 Dance Production Theory
- CT/PE 358 Dance Production Techniques
- PE 154 Ballet I

Four credits in the following:

- PE 153 Jazz Dance I
- PE 166 African Dance
- PE 167 Street Dance
- PE 258 Modern Dance Technique
- PE 259 Dance Repertory
- PE 262 Modern Dance II
- PE 243 Ballet II
- PE 253 Jazz Dance II

Bridgewater State College

Choose one:

PE 161 Folk Dance

PE 164 Square Dance

PE 168 Ballroom Dance

MU 160 Music: A Listening Approach is recommended but not required.

All activity courses successfully completed in this minor count toward the minimum 120 degree credits required for graduation.

Health Resources Management Minor

Students from relevant liberal arts and other related programs may elect this minor to develop the skills and background knowledge to gain employment at the entry level of health care delivery management. This minor is most appropriate for students in the Social Sciences, Social Work, Physical Education, Communication Studies, Management, and other human service oriented professions.

Required Courses:

HE 102 Health Science

HE/SW 403 Interdisciplinary Approaches to the Delivery of Health Services

HE 474 Community Health

AF 240 Accounting I

MG 130 Principles of Management

MG 140 Human Resources Management

Electives (choose one):

HE 401 Human Sexuality

HE 405 Drugs in Society

HE 471 Nutrition

HE 477 Environmental Health

AF 241 Accounting II

MG 200 Marketing Principles

MG 375 Personnel Development

AF 385 Managerial Finance

Oceanography

Courses related to oceanography are offered as a cooperative effort of the Departments of Biological Sciences, Chemical Sciences, Earth Sciences and Geography, and Physics. This emphasis is designed to prepare students for graduate studies in oceanography.

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 most of the following courses (or comparable ones) in their undergraduate programs: Calculus I and II, General Chemistry I and II, Quantitative Analysis, General Physics I and II, Animal Morphology, Plant Morphology, Physical Geology, Biological Oceanography and Physical Oceanography.

These courses, together with one of the majors indicated above, provide the basic foundation for further study in one of the four principal branches of oceanography: biological oceanography, chemical oceanography, geological oceanography, and physical oceanography. A student who is interested in oceanography should consult both his/her major adviser and one of the oceanography advisers before registering for courses in his/her freshman year or as soon as possible thereafter. Oceanography advisers are: Dr. Robert Boutilier (Earth Sciences); Dr. Henry Daley (Chemistry); Dr. John Jahoda (Biology).

Pre-Medical, Pre-Dental, Pre-Veterinary and Other Medically Oriented Professions

The Department of Biological Sciences can advise any college student interested in most of the medically oriented professions such as pre-medical, dental, veterinary, physical therapy, osteopathic, chiropractic, podiatry, and physician's assistant, as to recommended courses for each area, professional schools' requirements, how to apply, how to prepare for the MCATs, DCATs, VCATs and GREs, where applicable. Pertinent information and guidance is available through the pre-medical adviser in the Department of Biological Sciences.

Pre-Engineering

Pre-professional training for students planning to enter engineering schools is provided by Bridgewater State College.

Engineering schools expect prospective students to have demonstrated competency in areas such as mathematics, physics, chemistry, and computer science.

Students who are interested in engineering should consult with Dr. Richard Calusdian in the Department of Physics.

*Interdisciplinary and Pre-Professional Programs***Pre-Law**

Advising for students considering entering law school after graduation is provided by Bridgewater State College. Law schools are generally seeking students with strong academic liberal arts backgrounds who have demonstrated a high degree of competence in the ability to write with clarity, reason logically and analyze complex ideas. While law students therefore come from a variety of majors, it is useful to have a balanced curriculum with some preparation in history, English, government and philosophy. Students interested in a legal career should consult with Professor Pauline Harrington of the Department of Political Science.

Program in Scientific and Technical Illustration

This program is offered as a cooperative effort of the School of Arts and Sciences and the Department of Art. It provides a basis for careers in scientific and technical illustrations. Students interested in this program should major in either art, one of the natural sciences or mathematics. All students in this program are expected to take the following courses: AR 130 Two-Dimensional Design, AR 125 Drawing I, AR 230 Painting I, AR 240 Sculpture I, AR 225 Drawing II, AR 499 (1 cr.) Directed Study. Students majoring in art must minor in one of the natural sciences or mathematics. It is strongly recommended that all students in this program take at least one course in each of the natural sciences and mathematics. In addition to their regular advisers (majors and minors), students are encouraged to consult with Dr. Stephen Smalley of the Department of Art.

Public History Minor

A program of courses offered by the Departments of History, and Sociology and Anthropology to provide students with education and training for professional positions in public institutions such as museums, government offices, historical societies, national parks, and in business. The program is designed to serve the southeastern Massachusetts region. Students will choose courses from those listed below:

Required courses:

- HI 392 Seminar in Local History
- HI 492 Historical Museum Management
- or
- HI 493 Museum Management: A Practicum
- HI 498 Internship in History
- AN 103 Introduction to Archeology
- AN 303 Archeological Field Excavation in Prehistoric Sites in New England
- or
- AN 328 Archeology of North America

AN 410 Public Archeology

Suggested Electives:

- HI 440 Topics: Public History
- HI 441 The Colonial Period
- HI 460 The History of American Indians
- HI 461 American Immigration and Ethnicity
- HI 464 New England Textile Communities: Social and Economic History
- SO 306 Cities and People
- SO 315 Ethnic Experience in America
- PO 277 American Government: State and Local

Public Relations Minor

This public relations minor is offered as a cooperative effort of the Departments of Communication Studies and Theatre Arts, Management, and English. It provides an opportunity for students to acquire knowledge and skills germane to public relations practice. Students take courses in management, advertising, public relations, marketing, and business writing, or elect presentational skills courses, for a total of 21 credit hours.

Required Courses:

- CC 301 Introduction to Public Relations
- CC 391 Public Relations Practicum
- MG 130 Principles of Management
- MG 200 Marketing Principles
- MG 424 Advertising

Elective Courses:

- Choose one:
- CC 250 Public Speaking
- CC 212 Announcing
- CC 330 Business and Professional Communication

Choose one:

- EC 101 Principles of Microeconomics
- EN 202 Business Communication

Interested students should contact the department chairperson of the Department of Communication Studies and Theatre Arts.

Radio and Television Operation and Production Minor

A minor in Radio/Television Production is offered for those students who have an active interest in the areas of radio and/or television. Interested students should contact the department chairperson of the Department of Communication Studies and Theatre Arts.

Bridgewater State College

Russian and East European Studies Minor

A multidisciplinary minor encompassing 18 credit hours to be selected from courses offered in the Departments of English, Foreign Languages, Earth Sciences and Geography, History, Political Science, and Economics. The major purpose of this minor is to provide students with a deeper understanding of the Eastern European Area (including Russia) and its culture.

Each student must achieve proficiency in the Russian language (up to the intermediate level), but only six credits can be applied to the area program or any other Slavic language. Each requirement can be met by CLEP.

Three credits of each subject taken within the Slavic area studies can also be applied to student's major.

Students participating in the program are encouraged to go beyond the minimum requirements and take additional general education electives in this area.

Additional courses can be taken with the approval of the Slavic Council at other Massachusetts state colleges.

Each student who completes the program will be credited with a minor in the area, and in addition will receive "A Certificate of Completing Area Studies: Slavic."

The requirements for the minor include:

LR 151-152 Intermediate Russian I-II

HI 436 History of East-Central Europe since 1918

or

HI 434 Modern Russia to 1917

or

HI 435 History of the USSR

GS 380 Geography of Russia/C.I.S.

Select two of the following courses:

EC 320 Comparative Economic Systems

PO 275 Comparative Government

PO 383 Comparative Political Systems

For further details contact the Department of History.

Urban Affairs Minor

The college offers a multidisciplinary minor in urban affairs under the auspices of the earth sciences and geography, economics, history, political science, psychology, and sociology and anthropology departments. The primary

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 minor, through its internship 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.

Some examples of internships which are assigned according to the abilities, interests, and background of the student, and the current needs of the cooperating communities or agencies are:

Department of Earth Sciences and Geography:

City and regional planning; economic development, land use, environmental protection, transportation studies, cartography/drafting, business/bank locations and market studies.

Department of History:

Working with historical affairs commissions, assisting community organizations in oral history projects, and writing about local history.

School of Arts and Sciences:

Working in human services agencies, survey research in public institutions, work in community organizations and voluntary agencies.

Option A

Four out of the following seven courses:

AN 307 Urban Anthropology

EC 350 Urban Economic Problems and Policies

HI 463 History of the American City

PY 210 Applied Social Psychology

GS 353 Urban Geography

SO 306 Cities and People: Urban Sociology

PO 376 Municipal Government

Internship: (6) credits. (Equal to 8 weeks, full time or 16 weeks, half time)

Option B

Four out of the six courses listed under Option A, plus two courses from the list below:

GE 354 Field Methods in Urban Geography

HI 462 American Labor History

PO 277 American Government: State and Local

SO 212 Discrimination and Prejudice

499 Directed Study in individual participating departments

Interdisciplinary and Pre-Professional Programs

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.

Students interested in this program should contact:

1. Professor Glenn Miller, Department of Earth Sciences & Geography
2. Professor Jean Stonehouse, Department of History

Women's Studies Minor

"... education can serve neither the quest for knowledge nor the promise of genuinely democratic system until some very basic intellectual errors are uncovered and corrected."

American Philosophical Association Newsletter on Feminism.

Over the past twenty-five years, feminist scholarship has transformed ways of knowing. From the recovery and revision of history to the rethinking of all the academic disciplines, feminist scholars have asked new questions, developed new understandings, and created new directions for social and intellectual change. The Women's Studies Program at Bridgewater State College places gender at the center of the analysis of human experience in all of its expressions and historical contexts. The intersection of gender, race, class, and the various other social constructions along which power is distributed constitute the framework for our teaching and learning. The Women's Studies Minor consists of eighteen credits: three required courses and electives.

Required Courses:

- ID/WS 230 Introduction to Women's Studies
- ID/WS 330 Issues and Perspectives in Women's Studies
- ID/WS 430 Seminar: Research Theory and Methods in Women's Studies

Elective Courses:

Choose three from the following:

- AH 308 Women in the Visual Arts
- AN 208 Anthropology of Women
- AN 314 Women in Myth and Lore
- EN 327 Women Writers: The Female Tradition to 1900
- EN 328 Women Writers: The Female Tradition Since 1900
- HI 421 European Women's History: Medieval, Renaissance and Reformation
- HI 466 Women in American History
- ID 304 The Psychosocial Development of Women
- PE/WS 365 Women in Sport
- PL 210 Liberation Ethics
- PL 332 Philosophy and Feminist Thought

- SO 310 Women and Crime
- SO 313 Family Violence
- SO 330 Women's Roles: Sociology of Sex and Gender
- SO 360 Feminist Theory in Sociology
- SW 270 Social Work and Issues of Diversity and Oppression
- SW 328 Women and Social Services

Additional Women's Studies courses may be added from time to time. Students may take selected Special Topics and Seminar courses for Women's Studies credit with permission of the Women's Studies Coordinator.

For more information about the Women's Studies minor contact Professor Rebecca Leavitt, Department of Social Work, Women's Studies Coordinator.

Bridgewater State College

Interdisciplinary Course Offerings*

ID 101 Freshman Seminar (3 crs.)

Through a study of the decision-making process in relationship to such pertinent topics as independence and self-actualization, interdependence and community, wellness, cultural diversity, and career/life skills, the student will increase his/her potential for academic and personal success. Course work will be structured using a variety of texts from classical literature to current video presentations with an emphasis on class discussion and written analysis. (*Prerequisite: Students must be matriculated and must qualify for EN 101*) Either semester

ID 200 Introduction to Canadian Studies (3 crs.)

An interdisciplinary course which acts as the initial course for the general student and for those wishing to pursue a track in Canadian Studies. The following areas are included: anthropology, art, economics, education, English, French, geography, government, history, music, religion, sociology and theatre. Satisfies the GER in Social Sciences. *Spring semester*

ID 211 History and Literature of Western Civilization (3 crs.)

A study of selected historical and literary documents which shaped and in turn were formed by the civilization of the West. The course will focus on the Classical, Medieval, and early Renaissance periods and will be taught by two instructors, one from the Department of History and one from the Department of English. Satisfies the GER in History or Literature. (*Prerequisite: Enrollment in All-College Honors and consent of the instructors*)

ID 220 Introduction to American Studies (3 crs.)

Sophomores should enroll in this interdisciplinary course which is the initial course for the minor in American Studies. The course aims to examine from several perspectives one problem or period in the American experience. The topic, to be announced before registration, changes from year to year. Disciplines involved include: English, history, art, philosophy, political science and others.

ID/WS 230 Introduction to Women's Studies (3 crs.)

An interdisciplinary approach to communicating the experience of being a woman. Through the study of such topics as language, gesture and movement, images, role models, sex roles, gender, biological and cultural conditioning, stereotyping, and discrimination, the course will explore the nature, accomplishment, and promise of women—as they have been seen and as they see themselves. *Fall semester*

ID 250 Introduction to Multimedia (3 crs.)

The components of multimedia, text, graphics, sound, animation and video, will be studied as parts of a cohesive whole, integrated through the computer. Attention will be given to aspects of effective screen design and navigation structures. Various types of multimedia applications will be examined. (*Prerequisites: A familiarity with either Windows or the Macintosh system*).

ID 270 The Internet and the Web (3 crs.)

This course will provide an introduction to some of the basic tools needed to navigate the Internet and to retrieve information from

Internet sites. Tools covered include e-mail, telnet, ftp, gopher, listservs and the World Wide Web. The course will also include a look at the history of the Internet. In addition, students will learn HTML, the language of the World Wide Web, in order to create effective Web pages. Aspects of page design and navigational design will be included. (*Prerequisite: A familiarity with either Windows or the Macintosh system*).

ID 304 The Psychosocial Development of Women (3 crs.)

This course will provide an introduction to "women's reality" in terms of current research on women's values and needs. The course will cover such topics as power and conflict, sexuality and intimacy, creativity, ethnicity and the effects of oppression as well as the emotional problems which appear to affect women, e.g. depression, eating disorders, etc. (*Prerequisite: consent of instructor*)

ID/WS 330 Issues and Perspectives in Women's Studies (3 crs.)

The purpose of the course is to explore in depth a subject incidentally treated in a department or traditional course. The subject will vary depending on the instructor but may be one of the following: women and health; managerial women; women in art; women and work; women in politics; biological determinism and cultural conditioning; race, sex, and gender; aesthetics and feminism; feminism and christianity; women in science; women's roles in primitive cultures; women in Latin America; images of women in media. May be taken twice. (*Prerequisite: ID/WS 230*) *Spring semester*

ID 338-339 Honors Tutorial (3 crs. each semester)

Special topics of an interdisciplinary nature. Open to All-College Honors students at the junior and senior levels. Three hourly meetings weekly. (*Prerequisites: completion of three Honors Colloquia and attainment of an overall GPA of at least 3.3*) *ID 338 Fall semester, ID 339 Spring semester*

ID 350 Soil Identification and Interpretation for Land Use (3 crs.)

Soils are a recent record of what has been happening both physically and chemically beneath the ground surface. Being able to interpret the different soil characteristics is essential to understanding the suitability and environmental concerns of a site for agricultural use, residential and urban development, on-site sewage disposal, presence of wetland (hydric) soils, sources of sand and gravel, etc. This course stresses hands-on field techniques. (*Prerequisites: GE 100 Physical Geography, ES 100 Physical Geology, or the written consent of the instructor.*)

ID 420 American Studies Seminar (3 crs.)

Interdisciplinary topics, which change from year to year, will be developed in a small group, seminar setting. Juniors and seniors in the program will enroll in this seminar twice, studying two different topics. Total of 6 hours.

ID 427 Ireland in Literature and History, 1798-1922 (3 crs.)

Focusing on both Risings, the Famine, Parnell, and the background to the Civil War, this course will include primary and secondary sources, with emphasis on works by Maria Edgeworth, William Carleton, Thomas Moore, and Douglas Hyde.

ID/WS 430 Seminar: Research Theory and Methods in Women's Studies (3 crs.)

To inquire into what it means to be a woman or a man, one must understand the various contexts in which to formulate definitions and

* See page 73 for general information regarding course offerings.

Interdisciplinary and Pre-Professional Programs

make analyses. The seminar will present research techniques and theories of inquiry, examining assumptions in research, methods and conduct of inquiry, interpretation of data, publication and critical evaluation of research. Students will conduct their own research project having examined the current state of research in their disciplines. (*Prerequisite: ID/WS 230*) Fall semester

ID 485 Honors Thesis (3 crs.)

Open to All-College Honors students. One-hour weekly meetings with the thesis director, normally a member of the student's major department, will culminate in an honors thesis. Whether the final version of the thesis qualifies the student to graduate with All-College Honors will be determined by the student's Ad Hoc All-College Honors Thesis Committee. May be repeated. (*Prerequisites: completion of three Honors Colloquia and attainment of an overall GPA of at least 3.3*) Either semester

NS 300 Science and the Impact of Technology (3 crs.)

A study of the interplay of science and technology, the environmental, social, and economic consequences of technology, the effect of technical change on society, the management and control of technology, and the nature of the technological decision-making process.

NS 400 Senior Interdisciplinary Seminar in Environmental Science (3 crs.)

Current environmental issues will be discussed and analyzed in detail from an interdisciplinary viewpoint. The importance of thorough analysis and planning in developing long-term solutions to environmental problems will be emphasized. Faculty with appropriate interdisciplinary backgrounds will participate. (*Prerequisite: an introductory course in environmental science or consent of the instructor*)

NS 411 Introduction to Medicine for the Non-physician (3 crs.)

A survey of human medicine. Topics selected from anatomy, physiology, medical embryology, radiology, diagnosis, laboratory medicine, pathology, treatment of disease, and disease prevention. (*Prerequisite: BI 102 (or equivalent) and a semester of a college-level course in chemistry or physics, or consent of the instructor*)

NS 511 Watersheds I: Principles of Hydrology and Remote Sensing for Investigating Land Use Impacts on Water Resources (3 crs.)

This is an interdisciplinary course on hydrology and land use assessment for professional development of watershed educators working on projects in local watersheds. The RiverNet Watershed Access Lab will be used to advance local community watershed initiatives that improve water quality and protect watershed resources. Workshops and projects will emphasize hands on training in hydrology, determining watershed area, stream flow profiles and assessment of land use through color I.R. photos and satellite image analysis. The project goal will be to evaluate land use impacts on water quality in the local community of each team and is designed as a preparatory course for NS 521: Watersheds II. (*Prerequisites: BI 225 and at least one course in either CH 131 or CH 132, Earth Science or Geography; a course on computer applications; or consent of instructor*) Summer Session I

NS 514 Scientific Telecommunications (2-6 crs.)

An introduction to the uses of personal-computer based electronic telecommunication techniques and the application of these techniques to the sciences. The following topics will be considered: micro-computers, serial interfaces, modems, communications software, bulletin board

software, communication protocols, message transfer, file transfer, text editing, microcomputer to mainframe, and scientific calculations. If the course is taken for more than 2.0 credits, a project will be required. (*Prerequisite: CH 512 or consent of the instructor*)

NS 521 Watersheds II: Stream Ecology, Water Quality Investigation and Land Use Impacts on Water Resources (6 crs.)

This is an interdisciplinary course for teacher professional development in water quality and land use impacts in local watersheds. The RiverNet Watershed Access lab will be used to advance local community watershed initiatives that improve water quality and protect watershed resources. Workshops and projects will emphasize hands on training in stream ecology, water quality assessments and the use of GIS (Geographic Information Systems). The project goal will be to evaluate land use impacts on water quality in the local community of each team. A local watershed initiative project/curriculum will be developed by each participant and presented the following spring at a Watershed Access Lab one day conference. (*Prerequisite: BI 225 and at least one course in either CH 131 or CH 132, Earth Science or Geography; a course on computer applications; or consent of instructor; Recommended: NS 511 Part I, Summer Session II, 4 crs. Part II, Fall semester, 2 credits.*)

NS 525 Mathematical Applications to the Natural Sciences (3 crs.)

A series of lessons will be offered in which the application of mathematics to various areas of science will be offered. Guest speakers will present material from their area of expertise. Demonstrations of classroom presentation of the material will be given. (*Prerequisites: High school/middle school teacher of mathematics or sciences*)

Introductory College Skills



The courses in Introductory College Skills listed below are designed to strengthen those skills most essential to effective learning, both in college and throughout life. The program is based on the college's commitment to provide students with every opportunity to build upon strengths they have while correcting any deficiencies.

Students may be assigned to a class or classes containing these separate components as a result of a review of the students' high school record, SAT scores, and performance on various placement examinations generally given during Freshman Orientation. A student may also request this assistance, which the college is pleased to provide.

The course or courses will be graded on a pass/fail basis and will not be calculated in the student's cumulative quality point average. Students assigned to any component of the course must complete that component successfully before attempting any regular course in that area. The credit earned in any Introductory College Skills course may not be used to satisfy General Education Requirements nor may it be applied toward the minimum number of credits required for graduation in any major.

Course Offerings*

FS 100 Introductory College Skills: Intrusive Advising (1 cr.)

A specialized learning/advising program for freshmen offered by the Office of Academic Advising conducted in a small group setting. In this process students are encouraged to explore their learning styles, possible career interests and academic goals in terms of the total college environment in a shared and supportive setting. The credit earned may not be used to satisfy the GER, nor may it be applied toward the minimum number of credits required for graduation in any major. *Either semester*

FS 101 Introductory College Skills: Writing (3 crs.)

This course will consist of an intensive review of basic communication skills, chiefly those of reading and writing. It does not satisfy the writing GER, nor may the credits be applied toward the minimum credits required for graduation by any major. *Either semester*

FS 102 Introductory College Skills: Mathematics (3 crs.)

This course is individualized, self-paced and competency based and covers the fundamental principles of arithmetic, algebra, and geometry including: signed numbers, whole numbers, fractions, decimals, percents, exponents, equations, inequalities, rational equations, geometry, and problem solving. This course does not satisfy the mathematics GER, nor may the credits be applied toward the minimum credits required for graduation by any major. *Either semester*

*See page 73 for general information regarding course offerings.

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Staff Assistant
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Staff Assistant

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Assistant Director

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Clerk III

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Clerk IV

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Marian Marra
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Acting Dean of the School of Education and Allied Studies
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Robert Klevecka
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Dean
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Staff Assistant

Janet Taylor
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Leona Mazzoleni
EDP Entry Operator II
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John Rocharz
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Storekeeper II

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Clerk IV
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LaDonna Luckman
Clerk III (temp.)
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Administrative Assistant I
Maryann Alberghini
Maintainer I
John Allen
Maintainer I
Theresa Amaral
Third Class Power Plant Engineer
Dennis Asci
Maintainer I

Aurelia Arruda
Maintainer I
James Beatty
Maintenance Equipment Operator I
Robert Beauregard
Third Class Power Plant Engineer
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Maintainer I
Lawrence Bentley
Maintainer I
Richard Bentley
Maintainer I
Doreen Bettencourt
Maintainer I
Richard Bourget
Third Class Power Plant Engineer
Ronald Brown
Carpenter II
William Cabral
Steam Fireman II
Christopher Carlozzi
Motor Equipment Mechanic I
Louise Chiappini
Maintainer I
Lionel Child
Carpenter I
Tracey Chuckran
Maintainer II
Mildred Copeland
Maintainer II
Maria Costa
Maintainer I
Frederick Cournoyer
Third Class Power Plant Engineer
Jeffrey Croteau
Steam Fireman
James Cummings, III
Tradesworker
Roger Cunha
Steam Fireman
Alberto daRosa
Maintainer I
Louis DeGrace
Maintainer I
Manuel DePina
Maintainer I
Louis Donnelly
Maintainer I
Paul Donohue
Maintainer I
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Third Class Power Plant Engineer

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Julio Evora
Maintainer I
Francis Farrar
Steamfitter
Pedro Fortes
Maintainer I
Violet Freedman
Maintainer I
Barbara Freeman
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Motor Truck Driver
Edward Gasse
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Maintainer I
Moises Gibau
Maintainer I
Peter Gomez
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Maintainer I
John Green
Maintainer I
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Maintainer I
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Carpenter I
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Maintainer I
Mariann Sprague
Maintainer I
Aloysius Sullivan
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Maintainer II
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Staff Assistant
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Receiving Teller I
Barbara LaCrosse
Receiving Teller I
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Receiving Teller I
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Receiving Teller I
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Staff Assistant

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Staff Assistant

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Staff Assistant

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Staff Assistant

Claire Tremblay

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Valerie Best

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Parking Lot Monitor

David Cardella

Campus Police Officer I

Matthew Conway

Campus Police Officer I

Timothy Donovan

Parking Lot Monitor

Daniel Dos Santos

Campus Police Officer I

Daren Eaton

Parking Lot Monitor

Carol Fagan

Campus Police Officer II

Marvin Gurley

Parking Lot Monitor

Richard Kayser

Parking Lot Monitor

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Parking Lot Monitor

Leon Marchard

Parking Lot Monitor

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Campus Police Officer I

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Catalog:

Director of Admissions (508) 697-1237
Gates House
Office of the Graduate School (508) 697-1300
Maxwell Library

Course Offering Brochure:

Office of Student Records and Registration
Boyden Hall (508) 697-1231

Transcripts/Course Descriptions:

Office of Student Records and Registration
Boyden Hall (508) 697-1231

All requests for transcripts must be made in writing by the student. There is a charge of \$2 per transcript. When possible, on the spot transcripts will be issued with a fee of \$5. Partial transcripts are not issued. Course descriptions from catalogs prior to the current issue are \$1 per copy.

Admissions:

Undergraduate:
Director of Admissions
Gates House (508) 697-1237

Graduate:

Dean of the Graduate School
Maxwell Library (508) 697-1300

Health services, housing, and scholarships:

Student Affairs
Boyden Hall (508) 697-1276

Financial Aid:

Director of Financial Aid
Tillinghast Hall (508) 697-1341

Career Services:

Director of Career Services
Rondileau Campus Center (508) 697-1328

Alumni Affairs:

Director of Alumni Relations
Davis Alumni Center (508) 697-1287

Academic Employment:

Director of Human Resources
Boyden Hall (508) 697-1232

Teacher Certification and Credentialing Services:

Massachusetts Department of Education
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Maxwell Library (508) 697-1261

Matters not covered above and correspondence bearing upon the general interests of the college should be addressed to the president.

Catalog compiled and edited by the Office of Student Records and Registration and the Graduate School

CAMPUS MAP



- | | |
|---|--|
| 1. Gates House (Admissions Office) & | 19. V. James DiNardo Hall (student residence) & |
| 2. Boyden Hall (classrooms and administrative offices) & | 20. Frankland Miles Hall (student residence) & |
| 3. Lee F. Harrington Hall (classrooms and administrative offices) & | 21. Campus Police Headquarters |
| 4. Woodward Hall (student residence) | 22. Faculty Union Office (MSCA) |
| 5. Tillinghast Hall (Health Services, Financial Aid, faculty offices) & | 23. John Joseph Moakley Center for Technological Applications & |
| 6. Art Building & | 24. Walter and Marie Hart Hall (classrooms and academic offices) & |
| 7. Scott Hall (student residence) & | 25. Martha Burnell Campus School & |
| 8. Davis Alumni Center & | 26. Edward C. Swenson Football Field |
| 9. Christian Fellowship Center | 27. Alumni Park (Baseball/Softball Complex) |
| 10. Clement C. Maxwell Library & | 28. Athletic Fields |
| 11. Adrian Rondileau Campus Center & | 29. Great Hill Student Apartments & |
| 12. Pope Hall (student residence) & | 30. Shea Hall and Durgin Hall (student residences) & |
| 13. Greenhouse and Louis Stearns/Robert McNamara Memorial Garden | 31. Dr. Henry Rosen Memorial Tennis Courts |
| 14. Marshall Conant Science Building & | 32. Athletic Fields |
| 15. Power Plant | 33. Astronomy Observatory |
| 16. Athletic Field | |
| 17. John J. Kelly Gymnasium & | |
| 18. St. Basil Catholic Center & | |
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