

SUNY COLLEGE AT FREDONIA COLLEGE CATALOG

- [Catalog conversion notes](#)



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TABLE OF CONTENTS

CALENDAR	4
STATE UNIVERSITY OF NEW YORK AT FREDONIA	6
The College	7
The Community	8
The Campus	9
ACADEMIC PROGRAMS	10
General Education	14
General College Program	15
SPECIAL PROGRAMS	16
Creative Scholarly Support Services	18
Educational Studies	20
ACADEMIC HONORS	21
STUDENT ACTIVITIES	28
STUDENT SERVICES	36
SUPPORT SERVICES	43
Computer Center	44
Creative Support Services	45
Reed Library	46
Henry C. Youngerman Center for Communication Disorders	47
The Reading Center	48
The Fredonia College Foundation	49
The Learning Center	50
UNDERGRADUATE ADMISSIONS	51
EXPENSES AND FINANCIAL AID	56
UNDERGRADUATE STUDIES	66
ACCOUNTING	67
AGRICULTURE (COOPERATIVE)	71
ART	73
BIOLOGY	83
BUSINESS ADMINISTRATION	90
CHEMISTRY	97
COMMUNICATION	103
COMPUTER SCIENCE	112
ECONOMICS	117
EDUCATION	126
ENGINEERING (COOPERATIVE)	139
ENGLISH	143
FOREIGN LANGUAGES AND LITERATURES	154
GEOSCIENCES	161
HEALTH, PHYSICAL EDUCATION, ATHLETICS, & DANCE	169
HEALTH SERVICES ADMINISTRATION	173

HISTORY	176
INDUSTRIAL MANAGEMENT	186
MATHEMATICS	188
MEDICAL TECH/ BIOMEDICAL RESEARCH TECH	195
MUSIC	198
PHILOSOPHY	233
PHYSICS	240
POLITICAL SCIENCE	247
PRE-LAW	258
PSYCHOLOGY	259
RECOMBINANT GENE TECHNOLOGY	265
SOCIOLOGY/ ANTHROPOLOGY	267
SPECIAL STUDIES	276
SPEECH PATHOLOGY AND AUDIOLOGY	292
THEATRE ARTS	296
ACADEMIC POLICIES	305
STUDENT RIGHTS AND RESPONSIBILITIES	319
GENERAL STATEMENT	332
STATE UNIVERSITY OF NEW YORK	334
BOARD OF TRUSTEES	336
COLLEGE COUNCIL	337
FREDONIA CAMPUS ADMINISTRATION	338
FACULTY	341
DIRECTORY OF ADMINISTRATIVE OFFICES	350

COLLEGE CALENDAR 1993-95**1993-94****FALL**

Aug. 30 (M)	Grad. & Undergrad. Registration
Aug. 31 (T)	First Class
Sept. 6 (M)	Labor Day Break
Sept. 22 (W)	Follow Monday Schedule
Oct. 8 (F)	Mid-Semester Break
Oct. 26 (T)	Follow Friday Schedule
Nov. 22-26 (M-F)	Thanksgiving Break
Dec. 15 (W)	Last Class
Dec. 16-22 (Th-W)	Exams

SPRING

Jan. 18 (T)	Grad. & Undergrad. Registration
Jan. 19 (W)	First Class
	Follow Friday Schedule
Mar. 30-Apr. 8 (W-F)	Spring Break
	Holiday Break
May 6 (F)	Last Class
May 9-13 (M-F)	Exams
May 14 (Sat.)	Commencement

1994-95**FALL**

Aug. 29 (M)
Aug. 30 (T)
Sept. 5 (M)
Sept. 21 (W)
Oct. 6-7 (Th-F)
Oct. 25 (T)
Nov. 21-25 (M-F)
Dec. 15 (Th)
Dec. 16-22 (F-Th)

SPRING

Jan. 17 (T)
Jan. 18 (W)
Feb. 8 (W)
Mar. 16-24 (Th-F)
Apr. 14 (F)
May 5 (F)
May 8-12 (M-F)
May 13 (Sat.)

State University of New York College at Fredonia 1993-1995

The State University of New York College at Fredonia is prepared to respond to the needs of students with disabilities. For specific information about services and facilities for the disabled, contact:

Timothy L. Murphy
Coordinator for Students with Disabilities
E319 Thompson Hall
673-3270

Michael C. Zich
Director, Student Support Services Program
E294 Thompson Hall
673-3461

H. Bernard Gerling
Personnel Associate, Office of Human Resources
613 Maytum Hall
673-3434

The State University of New York College at Fredonia fully subscribes to the Non-discrimination Policy of the State University of New York.

The State University of New York, in accordance with applicable federal and state laws, does not discriminate on the basis of race, sex, ethnicity, national origin, religion, age, disability, marital status, and arrest and/or conviction record. Further, in accordance with the Vietnam Era Veterans' Readjustment Assistance Acts, disabled and Vietnam Era veterans are ensured of non-discriminatory treatment.

Additionally, discrimination on the basis of sexual orientation in the provision of any Services or benefits by State agencies and in any matter relating to employment is prohibited by the Governor's Executive Order No. 28. The policy of the State University of New York Board of Trustees also requires that personal preferences of individuals which are unrelated to performance such as sexual orientation shall provide no basis for judgment of such individuals.

Any violations of the university's non-discrimination policy should be reported to Daniel O'Rourke, assistant vice president for Human Resources, Room 613, Maytum Hall. Phone (716) 673-3434.

A SUNY-wide grievance procedure is available to all students and employees in cases of discrimination. If you feel you have been a victim of discrimination for any of the above reasons, feel free to contact Mr. O'Rourke. Persons who wish to initiate such a grievance or complaint should also feel free to bring a friend or advisor with them.

Information in this catalog is accurate as of January 1, 1993. However, all information is subject to change. Updated information may be obtained from the Admissions Office, State University of New York College at Fredonia, Fredonia, NY, 14063.

The college reserves the right to cancel any course for which the enrollment is deemed insufficient or for other administrative reasons. The college also reserves the right to change faculty assignments and therefore cannot guarantee students the faculty of their choice. The State University of New York College at Fredonia Undergraduate Catalog is published by the Office of College Information Services.

ACCREDITATION

The College at Fredonia is fully accredited by:
Board of Regents of the University of the State of New York
Middle States Association
National Association of the Schools of Music
National Association of the Schools of Theatre

The college is on the approved list of the American Chemical Society.

The College at Fredonia honors its commitment to the environment by printing on recycled paper.

The College

The State University of New York College at Fredonia, with its rich tradition of teaching and learning, is a leading comprehensive university college. The college offers a wide variety of majors in the arts, humanities, and the natural and social sciences, as well as professional programs in many areas. Its curriculum is strengthened by the nationally-recognized General College Program, a core of liberal education studies required of all students.

U.S. News and World Report ranked Fredonia highly in its 1993 edition of *America's Best Colleges* among northern colleges and universities, and in the most recent Student Opinion Survey administered throughout SUNY by the American College Testing service, current students rated Fredonia the highest of the participating arts and science colleges in several key areas. Ranked first for student satisfaction were the college's concern for the student as an individual, its outstanding new student orientation program, and the attitude of staff toward students. Also rated highly were academic advising services, personal safety, the condition of buildings and grounds, and the condition of residence halls and the quality of their services and programs.

Outstanding faculty in all areas are committed to providing quality education to students through classroom teaching, and research and performance opportunities. The College at Fredonia is well represented with more than its share of those recognized by SUNY as Distinguished Teaching Professors, Distinguished Service Professors and recipients of Chancellor's Awards for Excellence in Teaching, Librarianship and Professional Service. Accessibility to faculty creates an open atmosphere, and small class sizes reflect the college's dedication to excellence. The warmth and caring nurtured by the college's faculty and professional staff is an attraction as strong as its fine academic reputation.

Students attending the College at Fredonia represent all areas of New York State, as well as out-of-state. Foreign students visiting the college enrich the lives of the campus population, and many students choose to participate in study abroad programs in England, Europe, and Latin America.

The school joined the newly-formed State University of New York system in 1948 as one of the 11 teacher's colleges within the university and in 1961 became the State University of New York College at Fredonia with an expanded mission. Its history dates back to its roots as the Fredonia Academy, established in 1826 by the citizens of Fredonia. In 1867 it was named one of the new State Normal Schools.

As noted in its mission statement, the College at Fredonia seeks to provide the best possible education for its students, to contribute to knowledge and the solution of significant problems through its research, and to serve the people of New York State and the nation. Many graduates have distinguished themselves nationally and internationally as scholars, artists, and scientists.

The Community

The college campus is very accessible, located within the village of Fredonia in the heart of northern Chautauqua County at Exit 59 of the New York State Thruway, about 40 miles south of Buffalo, N.Y. This largely residential village is distinguished by beautiful treelined avenues, the warmth of its citizens, and a deeply rooted history. The neighboring city of Dunkirk is located on the shores of beautiful Lake Erie.

The Chautauqua County area has a number of attractions available to its residents and visitors year-round. Lake Erie offers opportunities for swimming and boating during the summer, and nearby ski centers beckon during the winter months. Nationally-known Chautauqua Institution provides a wealth of plays, operas, concerts, and lectures during the summer months, which along with cultural events at the College at Fredonia sustain a wonderful atmosphere of creativity throughout the seasons.

The Ontario, Canada city of Toronto is just a few hours away by car, and nearby Buffalo boasts such fine facilities as the nationally-known Albright-Knox Art Gallery, Kleinhans Music Hall, home of the Buffalo Philharmonic Orchestra, and Rich Stadium, home of the Buffalo Bills. The Bills have made the College at Fredonia the site of its summer training camp since 1981

Western New York, and specifically Chautauqua County, with its rolling hills which reflect the beautiful seasons, is a wonderful setting for the College at Fredonia.

The Campus

The 266-acre campus of the College at Fredonia is striking in its beauty and design. A traditional brick perimeter encloses a modern sculptured core of buildings including designs by the internationally-known architect I.M. Pei. Well-kept lawns and wooded areas enhance the beauty of the campus. Facilities on the campus of the College at Fredonia reflect its diversity and reputation for excellence.

There are 13 residence halls on the College at Fredonia campus, including corridor and suite-style, as well as apartments. In addition, several lifestyle options are available including a residence hall with a body conditioning area; a cooperative engineering area for those enrolled in this specialized program, and other special interest areas. Dormitory life offers the added advantage of activities planned by students. **Cranston Hall and Erie Hall** are the main dining facilities, supplemented by the Campus Center food services. **Gregory Hall**, the first residence hall on the present campus, was named in honor of former college president Dr. Leslie R. Gregory, and also is the home of the Office of Residence Life, the Faculty Student Association, the Learning Center, and the Office of Public Safety.

The Campus Center, a circular building appropriately situated at the center of campus life, houses the offices of Student Activities and the Student Association, and several major student organizations and publications. It also contains a variety of dining options, the campus bookstore and convenience store, meeting, activity and recreation spaces, a commuter lounge, the campus information center and the Central Box Office. **Dods Hall**, one of two athletic facilities, contains classrooms, gymnasias, a swimming pool, weight room, dance studio, and racquetball courts. Adjacent to it, this building is **Steele Hall**, which contains an indoor ice skating rink and track/basketball arena.

Enhancing student and community life is the **Michael C. Rockefeller Arts Center**, a magnificent performing and visual arts facility. In addition to classrooms, the facility contains the 1,200-seat King Concert Hall, the 400-seat Marvel Theatre, the Bartlett Theatre, and two art galleries.

LoGrasso Hall is the home of the student health center and the office of Creative Scholarly Support Services. **McEwen Hall** includes lecture halls, classrooms, a television studio and the student radio station, WCVF. **Reed Library**, designed by I.M. Pei and named in honor of the late Daniel A. Reed of Sheridan, a long-time member of Congress from what is now the 34th Congressional District, contains nearly 400,000 volumes as well as music scores, recordings, other media and special collections. A library addition and renovation project will be completed in 1993.

Maytum Hall is the home of administrative and business offices as well as the Office of the Registrar and the Computer Center.

Fenton Hall, named in honor of the late Reuben Fenton, governor of New York State from 1865-1868, former congressman and U.S. Senator, who attended the Fredonia Academy, is the main humanities and mathematics and computer science office and classroom building. The College President's office is also located in this building.

Jewett Hall and Houghton Hall are the natural and physical sciences buildings containing classrooms and laboratories, and offices for the departments of Biology, Chemistry, Geosciences and Physics.

Thompson Hall, the largest academic structure on campus, was opened in the summer of 1973. In addition to the education and social science departments, the division of Educational Studies and grants administration/research services office, the Reading Center, the Henry C. Youngerman Center for Communication Disorders, and Creative Support Services including the Media Center, are housed in this building.

Mason Hall, home of the College at Fredonia's School of Music, is named for organist, composer and teacher Lowell Mason, called the "Father of Public School Music in America."

Located about 12 miles from the campus, the **Herbert C. Mackie Memorial Camp**, the location of the Center for Outdoor Education, provides opportunities for year-round educational and recreational activities. A sleeping lodge was completed in 1989.

Hours when academic buildings are open are published separately.

ACADEMIC PROGRAMS

The college has a variety of programs leading to the bachelor's and master's degree. The typical undergraduate program at the College at Fredonia consists of four groups of courses: 1) the General College Program, consisting of basic courses in various branches of learning required of all students, whatever their principal interest; 2) the courses required to complete a departmental or inter-departmental major; 3) supporting courses in subjects related to the major field, as well as courses which may be required for teacher certification; and 4) electives necessary to complete the minimum of 120 semester hours of credit required for the baccalaureate degree. The student may also take special concentrations, minors, and second majors.

The basic organizational unit of the college faculty is the academic department, which brings together people with similar academic backgrounds and related interests in teaching and research. On the graduate level, the college offers certification programs, master's degrees in a variety of fields, and a post-master's certificate of advanced study. (For details about post-baccalaureate work, see the separate Graduate Catalog, 1993-95.)

ACADEMIC PROGRAMS

Academic Programs and Area Specializations

<u>Curriculum</u>	Bachelor of Arts/ Bachelor of Science/ Bachelor of Fine Arts/ <u>Bachelor of Music</u>
Accounting	B.S.
Art	B.A./B.F.A.
*Ceramics	
*Drawing	
*Graphic Design	
*Art History	(B.A. only)
*Illustration	
*Painting	
*Photography	
*Printmaking (support courses)	
*Sculpture	
Biology	B.S.
*see also Medical Technology	
*see also Recombinant Gene Technology	
Business Administration	B.S.
*Finance	
*Individualized Specialization	
*Management	
*Marketing	
Chemistry	B.S.
Communication	B.S.
*Audio/Radio Production	
*Human Communication	
*Media Management	
*Video Production and Design	
Computer & Information Sciences	B.S.
*Option I Mathematical Sciences Track	
*Option II Business. Management Track	

Cooperative Agriculture
 Programs With:
 Cornell Agr. & Life Sciences

Cooperative Engineering
 Programs With:
 Alfred Ceramics
 SUNY Binghamton
 SUNY Buffalo
 Case West. Res. Univ.
 Clarkson
 Columbia
 Cornell
 Louisiana Tech.
 Ohio State
 Rochester Institute of
 Technology
 Rensselaer Polytechnic
 Institute Syracuse Tri-State

Cooperative Special
 Education Program With:
S.U.C. Buffalo

Earth Science	B.A./B.S.
Economics	B.A.
*Business Economics	
*Designed Field	
*Economic Policy	
*Money, Banking & Finance	
*Political Economy	
*Quantitative Analysis and Computer Applications	
Elementary Education	B.S. Ed.
*Early Childhood Education	
*Middle School Extension	
English	B .A.
French	B .A.
Geochemistry	B .S.
Geology	B.S.
Geophysics	B.S.
Health Services Admin	B.S.
History	B .A.
Industrial Management	B.S.
Mathematics	B.S.
Mathematics-Physics	B.S.
Medical Technology	B.S.

Music	Mus. B.
*Composition	
*Performance	
Music-Applied	B .A.
Music Education K-12	Mus. B.
Music History & Literature B.A.	
Music Theory	B.A.
Music Therapy	B.S.
Musical Theatre	B.F.A.
Philosophy	B .A.
Physics	B.S.
Political Science	B.A.
*Government and Politics	
*Public Law & Policy	
*Political Economy	
Psychology	B .A.
Recombinant Gene Tech	B.S.
Secondary Education	
*Biology	B.S.
*Chemistry	B.S.
*Earth Science	B.S.
*English	B.A.
*French	B.A.
*Mathematics	B.S.
*Music	Mus. B.
*Physics	B.S.
*Social Studies	B.A.
*Spanish	B.A.
Sociology	B .A.
Spanish	B.A.
Special Studies	B.A.S.S. B.S.S.S.

(Interdisciplinary self-designed majors)

Sample Areas:

- *American Studies
- *Arts Administration
- *Environmental Science
- *Gerontology
- *International Service
- *Labor and Industrial Relations
- *Latin American Studies
- *Law, Justice and Society
- *Music Business
- *Social Work

*Special Education

Speech & Hearing
Handicapped B.S. Ed.

Theatre Arts B.A./B.F.A.

*General Theatre Studies (B.A. only)

*Production

*Design

*Performance

*Musical Theatre

Additional Academic Options

Time-Shortened Degree: 3-1-3

Undeclared

Special Programs

Continuing Education

U.B. Nurses

Visiting - 1 semester

Visiting - 2 semesters

Empire State

JCC North Program

* indicates area specialization.

Minors/Concentrations

A "minor" is a specified minimum number of hours in a particular discipline, recorded on official transcripts, but involving fewer hours than a major. A "concentration" is an interdisciplinary minor (see also Special Studies).

Minors

Anthropology

Art History

Art Studio

Biology

Chemistry

Communication

Computer/Info. Science

Earth Science

Economics

Educational Studies

English

Foreign Languages

Geosciences History

Industrial Organizational Psychology

Mathematics

Music

Philosophy

Physics

Political Science

Psychology

Sociology

Speech Pathology and Audiology

Theatre Arts

General Education

The State University of New York is charged with furthering human development and exploring and 'pursuing human potential in the broadest sense. In general, the university performs this function by acting as a center for the development and dissemination of knowledge, arts, and skills. In particular, it offers an opportunity for concentrated intellectual development and training. As part of the university, the College at Fredonia pursues these goals with its own unique resources.

The college seeks to provide students with both a specialized and a general education. The specialized work prepares students in particular fields of knowledge for careers, professions, and other specific goals. But knowledge, like life, is a seamless fabric which cannot be cut into separate pieces. Any special area of knowledge requires a larger context to become fully meaningful. It is the purpose of general education to provide such a context, to help students find a sense of direction and become better able to cope with a changing world, regardless of their specializations.

The object of a general education is to further the development of a total human being who seeks to relate learning and living, ideas and actions. Seen in this way, general education seeks to provide the basis for responsible action, and to develop the habit of questioning and of using questioning as a creative tool.

The ability to discover and act upon their own values is a basic potential of human beings. In choosing the values by which they live, rather than having values thrust upon them, individuals create themselves. However., the freedom to choose and create comes into being only for people who have developed self-awareness, an ability to think, a minimal body of knowledge, and aesthetic sensitivity. General education seeks to help students develop all of these.

General education should help students understand human society and their relationship to it. But it should also enable students to develop as individuals with a fundamental philosophy or basic world view that is consciously personal, yet based on an awareness of culture, history, and society. Consequently, general education seeks to facilitate the development of a conscious philosophy or world view, and to develop the skills by which such fundamental beliefs can be articulated clearly.

Students complete the minimal general education requirements at the College at Fredonia in the framework of the General. College Program. A description of this program follows.

General College Program

A minimum of 36 hours of approved courses, distributed as follows.

Part I: Skills	Hours
A English composition: EN 100	3
B: A course emphasizing further development of writing (may be in the major department)	3
C A course emphasizing the development of quantitative or statistical abilities (may be in the major department)	3
D A course emphasizing the development of oral communication or analytical and critical thinking or creative/perceptual skills (may be in the major department)	3
Total	12
Part II: Introduction to the Disciplines (may not be in the major department)	
A Two courses, one in each of two disciplines in the area of natural sciences and mathematics	6
B Two courses, one in each of two disciplines in the area of arts and humanities	6
C Two courses, one in each of two disciplines in the area of social and behavioral sciences	6
Total	18
Part III: Integrative, Advanced Courses (A and B, or two from B; may not be in the major department)	
A One course from the approved Part III offering	3
B One course with a cross-cultural or international emphasis	3
Total	6

Students must complete 27 hours in Parts I and II before attempting a course in Part III.

Transfer students may receive credit in Parts I and II of the General College Program for similar courses taken at other colleges. Generally speaking, introductory courses in the liberal arts will meet the criteria for Part II. Examples of courses in the natural sciences are introductions to biology, chemistry, earth science, or physics; in the arts and humanities, surveys of art history or music history, introductions to literature, philosophy, or drama; in the social and behavioral sciences, basic courses in American government, world history or American history, and introductions to anthropology, economics, psychology, and sociology. Courses in Part III of the program must be taken at the College at Fredonia.

SPECIAL PROGRAMS

Pre-Professional Programs

Students may arrange pre-professional programs to prepare for specialized training in engineering; health related areas such as dentistry, medicine, and veterinary medicine; or law. Those students seeking admission into professional schools should obtain the catalog of the institution they hope ultimately to enter and develop their college program, insofar as possible, according to the listed entrance requirements.

Advisement on pre-medical, pre-dental, and other health related programs may be obtained from the Biomedical Professions Council through the Department of Biology. Students interested in these careers are encouraged to register with the council through the biology department as early as possible to insure appropriate advising on matters of course and major choices, and application procedures to professional school. Information on law may be obtained from the Pre-law Advisory Committee through the Department of Political Science (for more information on pre-law, refer to the section on page 149); on engineering from the Director of the Cooperative Engineering Program; and on the Cooperative Agriculture Program, from the Director of the Cooperative Agriculture Program.

Educational Development Program

The Educational Development Program is known statewide as the Educational Opportunity Program. It is designed to serve the student who is a resident of New York State and has experienced both educational and economic disadvantages which would normally make it difficult to gain access to college and obtain a degree. The purpose of the program is to make higher education a reality for students who show evidence of potential for academic success, although they lack the normal admissions credentials. The ultimate goal of the Educational Development Program is to help students complete a baccalaureate degree program within four to five years.

Additionally, program graduates will receive a waiver of tuition for full-time graduate study upon acceptance at any SUNY college or university.

The Educational Development Program is a comprehensive academically oriented program offering supportive services in three areas:

1. Academic Support
 - a. College level
 - b. Tutorial assistance
 - c. Supplemental instruction
 - d. Internship cooperative
2. Counseling Services
 - a. Academic advisement
 - b. Individual and group
 - c. Career
 - d. Freshmen seminar course
 - e. Personal and social
 - f. Peer counseling
3. Financial Assistance
 - a. Financial aid for qualified students
 - b. Financial planning

Please review the Educational Development Program eligibility and admissions criteria on page 32 of this catalog.

The Full Opportunity Program

Students accepted through the Full Opportunity Program (see pg. 32 on Special Admissions Programs) are guided through their first year at Fredonia beginning with academic advising which takes place during Summer Orientation. The Associate Director of Academic Advising has responsibility for assisting students in matters ranging from acclimation to college life in all its forms to course selection for the spring of freshman year and beyond. Particular attention is given to the specific academic needs of these unique Fredonians. Upper division students who were accepted

through the program and wish to continue to participate in either the group or individual meetings are encouraged to do so.

Student Support Services Program

The Student Support Services Program is a federal TRIO project, sponsored by the United States Department of Education. It is designed to offer academic support services to 225 students each year who are selected on the basis of their eligibility and academic need. Eligibility requirements include being a first generation and/or low income student, or having a disability. SSSP provides a comprehensive support program for these students. Components include:

Free Assigned Tutoring. A participating student may request an assigned tutor for one or more college courses per semester, as needed.

Academic, Career and Personal Counseling. SSSP has a full-time counselor on staff who is trained and experienced in all of the above aspects of counseling.

Supplemental Courses. SSSP courses are designed to help students with additional skills. Although the courses vary from year to year, each incoming SSSP student is expected to take the 1-credit-hour Orientation course in the fall. Other recommended supplemental courses may include Speech Effectiveness or labs in writing, science, math or computer science.

Creative Scholarly Support Services

The office of Creative Scholarly Support Services, headquartered in LoGrasso Hall, brings together a unique combination of college and community support services.

Sponsored and non-sponsored credit-free conferences, institutes, and workshops. Works with representatives from community groups and industrial organizations to identify and provide for the specialized educational needs of their memberships.

Continuing Education. The college, through this program, makes educational opportunities available to working adults and non-traditional students who wish to explore college study on a part-time basis. For more information, see page 34.

Manuscript assistance services. Assists faculty with manuscript preparation and word processing, including technical writing, research support, microcomputer database creation, scanning and related services.

Creative Support Services. Media services. Thompson Hall, see page 28.

Internships. Allows students to apply their liberal arts knowledge to specific career fields and receive academic credit. Internships are generally taken in the student's third or fourth year. In addition to a variety of local part-time internships, full-time internships are available. Examples of the latter are semesters in Washington, D.C. and Albany, N.Y., and New York State Assembly and Senate Internships.

College policy requires that students undertaking an internship *must* complete a Learning Contract in addition to registering for an appropriate course. Registration for internship courses after work has begun is prohibited. Failure to comply with college policy on internships will result in the loss of academic credit. More information is available in LoGrasso Hall. For information on Public Service Concentrations, see Special Studies, page 164.

International Education. International Education at the College at Fredonia includes two major components: over 300 overseas programs for College at Fredonia students, and programs at the college available to students from other countries (See Special Admissions Programs, International Education: p. 33). Samples of programs include studying at the University of Trier, a German university, and exchange programs with Aichi University of Education in Japan. Other examples are teacher education programs in Wales and England (see Educational Studies, p. 11). More information on overseas programs is available in LoGrasso Hall.

Native American Consortium. The overall goal is to increase the access and retention of Native American students to a college education.

The Creative Scholarly Support Services office also manages a specialized economic-related database, coordinates the development of brochures, provides export assistance and counseling, and supervises requests for media services (radio, television, graphic arts) by outside organizations. An operator-assisted FAX machine (716) 673-3175 is available.

For information on any of the above-listed offices, telephone (716) 673-3177, or visit LoGrasso Hall.

Reserve Officers' Training Corps (Army ROTC)

The College at Fredonia has a special cross-registration, tuition-free arrangement with Canisius College for students desiring to enroll in military science courses and earn an Army Officers' Commission through the Reserve Officers' Training Corps (Army ROTC) Program.

Fredonia freshmen and sophomores may enroll in the two-year Basic Course for which no military obligation is incurred. The Basic Course is designed to provide students with fundamental leadership education. Juniors and seniors are enrolled in the two-year Advanced Course which leads to an Army Officers' Commission in the Active Army, Army Reserves, or National Guard.

For more details on this program and ROTC scholarships, contact Army ROTC at Canisius College (716) 888-2763.

Educational Studies

The college-wide division of Educational Studies has direct implications for change and innovation in teacher education and for health care providers. The campus-wide nature of the division involves the integration of early childhood, elementary, and secondary education components as well as the initiation of a comprehensive field-based approach to educational studies. In addition, the division assumes responsibility for supporting teaching effectiveness, educational research, child studies, development of grant proposals, and international education programs. The further development of needed links and partnerships with the public schools in the SUNY College at Fredonia service area, the Fredonia-Hamburg Teacher Education Center, and the Office of Field Experiences is fostered and enhanced through Educational Studies.

The division offers international programs in both preservice and in-service education. Through cooperative efforts with the Swansea Institute of Higher Education in Wales, and Plymouth University, Rolle Faculty of Education in Exmouth, England, students are afforded the opportunity to engage in a five-week student teaching experience. In-service teachers are provided a two-week experience in England and/or Wales to observe British education. As a result of reciprocal agreements between the College at Fredonia and these British institutions, students from England and Wales visit the Fredonia campus at selected times each year.

The office of grants administration/research services helps to identify potential outside sources of project funding, assist with proposal and budget preparation, establish audit and control procedures, monitor expenditures, and aid in other ways the procurement and administration of academic grants.

ACADEMIC HONORS

Academic Convocation

The Academic Convocation each fall presents a major scholar of national reputation to the campus community. Students, faculty, staff, and community guests gather in King Concert Hall for a formal procession of the faculty in full academic regalia, and for an address on a major subject by a prominent figure such as anthropologist Richard Leakey, musician Sarah Caldwell, biologists James Watson and Ruth Hubbard, philosopher Robert Nozick and historian Christopher Lasch. A panel discussion on a related topic follows in the afternoon.

Honors in Liberal Education

Within the framework of the General College Program, the College at Fredonia has a freshman/sophomore Honors Program open to well-prepared students who enjoy intellectual challenges and are excited by ideas. The program consists of a series of four seminars on topics of concern to our society at large; seminar topics have included "Politics and the Novel," "Ethical Problems in the Natural Sciences" and "The Dilemmas of Institutionalized Evil." Students take one seminar each semester, and the four seminars replace four courses in the General College Program.

In addition to participating in the seminars and working closely with faculty members distinguished both for scholarship and teaching ability, honors students plan a number of extra-curricular activities and meet regularly to discuss the program in relation to their own developing perceptions of themselves, their values, and their future lives. Students who complete the program successfully graduate with Honors in Liberal Education.

Application to the Honors Program is separate from application to the college. While most Honors Program applicants are high school seniors, qualified juniors who are considering early entry to college are encouraged to inquire about the Honors Program.

Graduation With Honors

Requirements for graduation with honors are listed on page 187 of the Academic Policies section of this catalog.

Other Academic Honors

The College at Fredonia has many honor societies, some for students majoring in particular fields, and some for students at large (see below for a current list). In addition, students in the School of Music may qualify for a large number of awards and may be chosen to offer honors recitals. Students in chemistry may choose to conduct honors research projects. Students in art may qualify to present honors exhibitions of their work. Prizes and honors for outstanding work are also offered to students in English, history, psychology, and the natural sciences. In addition, a good number of scholarships and partial scholarships are available to high-achieving students. (See list on page 14).

Societies

Alma Mater Society. An honorary organization of students selected annually by the student body at Fredonia. The society was established in 1966 by the Student Association for the purpose of recognizing those students, faculty and staff who have exhibited outstanding qualities of character and leadership in support of the student body and the college community as a whole during their college years.

Alpha Epsilon Rho. (AERho) - the National Broadcasting Society. An honors organization comprised of student and professional broadcasters whose primary goal is to bridge the gap between the academic and professional worlds of broadcasting in order to better prepare students to enter the broadcasting industry. Student national members must have a GPA of 3.0 in communication courses. Local membership requires a 2.5 GPA in communications courses.

Alpha Kappa Delta. Sociology majors and minors who maintain a minimum of 3.0 grade point average in their major and overall are eligible for induction into Alpha Kappa Delta, the International Sociology Honorary Society.

Alpha Mu Gamma. A national foreign language honor society whose local chapter, Kappa Delta, was installed in April 1984. The society aims to encourage an interest in the study of foreign languages, literatures and civilizations and to honor achievement in any foreign language at an early stage in the student's career. Membership is open to any student who has completed two college-level foreign language courses with superior grades. Students with less than an average GPA are not eligible.

Alpha Psi Omega. A national dramatic society for students in theatre arts at the junior or senior level who have attained an over all grade point average of 3.00 and who contribute significantly to the theatre program.

Beta Beta Beta. A national honor society recognizing superior scholarship and research in the biological sciences. The Upsilon Chi chapter of Beta Beta Beta was installed at Fredonia in 1966.

Delta Mu Delta. A national honor society in business administration and accounting.

Kappa Delta Pi. A national educational honorary society. The local chapter is Zeta Upsilon. Membership is by invitation.

Omicron Delta Epsilon. A national academic honor society granting recognition in the field of economics. Tau chapter was installed at Fredonia in 1971.

Phi Alpha Theta. An international honor society in history whose membership is composed of students and professors and whose purpose is to recognize, through its membership, excellence in the study of history. Membership is open to any student who has completed twelve or more hours of history and who has achieved prescribed standards of academic proficiency.

Phi Beta Kappa Club of Fredonia. Composed of faculty and community members of Phi Beta Kappa, the club makes annual awards to a few outstanding graduating seniors with a QPA of 3.50 or more who have earned at least three-fourths of their college credits in a broad range of the liberal arts and sciences.

Phi Eta Sigma. A national honor society recognizing superior academic achievement in either the first semester or first year of college. Open to any student who achieves a quality point average of 3.5 or better in his/her first semester or first year. The chapter was installed at Fredonia in 1974.

Phi Mu Alpha Sinfonia. Rho Chi Chapter of Phi Mu Alpha Sinfonia Fraternity of America was installed at Fredonia in May 1966. As a national professional music fraternity for men, Sinfonia endeavors to advance the cause of music in America and to foster the mutual welfare and brotherhood of students of music.

Pi Delta Phi. A national French honor society whose local chapter, Epsilon Rho, was installed in May 1968. The society recognizes outstanding scholarship in French and strives to stimulate cultural activities that will lead to deeper appreciation of France and its people. Members are nominated in recognition of academic achievement.

Pi Kappa Lambda. A national music honor society, first organized in 1918. The society's primary objective is "the recognition and encouragement of the highest level of musical achievement and academic scholarship." Initiates are elected by the society's membership on the basis of this objective. Fredonia's chapter of Pi Kappa Lambda is Delta Omega.

Pi Mu Epsilon. A national honorary society for the promotion of scholarly activity in mathematics among students in academic institutions. Members are elected on an honorary basis according to their proficiency in mathematics.

Pi Sigma Alpha. The political science department is a member of Pi Sigma Alpha, the national political honor society. Outstanding undergraduates majoring in political science are admitted to membership.

Psi Chi. A national honor society recognizing academic achievement of students with majors or minors in psychology. The purpose is to advance the science of psychology and to encourage scholarship among members.

Sigma Alpha Iota. Incorporated as a woman's international music fraternity whose purposes are to foster interest in music and to promote social contact among persons sharing a general interest in that art form. Delta Lambda Chapter was installed at Fredonia in 1964.

Sigma Delta Pi. National Spanish honor society whose local chapter, Eta Alpha, was installed in May 1968. The society promotes the understanding and appreciation of Hispanic culture. Members are selected from advanced students who exhibit outstanding ability and interest in Spanish studies.

Sigma Pi Sigma. A national honor society, the sole purpose of which is to recognize excellence in the study of physics coupled with high overall academic scholarship. Membership is open to qualified first-semester juniors, seniors, graduate students, and faculty. The Fredonia chapter was installed in May 1970 as a subdivision of the existing chapter of the Society of Physics Students, a national organization open to all persons with active interest in physics.

Sigma Xi. National organization for the promotion of scientific research. It has an active club at Fredonia with membership open to both faculty and students who have done publishable work.

SCHOLARSHIP OPPORTUNITIES

Freshman

One of the college's most prestigious scholarships, the **Foundation Freshman Award**, is a one-year scholarship equal in value to the cost of tuition (\$2,650). Minimum qualifications for this merit award are at 92 high school average, 1150 SAT or 28 ACT score and a strong academic high school program.

Accepted students meeting these eligibility requirements will receive an invitation to apply for this competitive award. Recipients will be notified by the College Scholarship Committee on an ongoing basis throughout the spring. Early application is recommended, as a limited number of these competitive awards are available.

Transfer Award

In the spring of each year, scholarships are awarded to transfer students who have demonstrated outstanding academic achievement and who have earned an associate degree from a SUNY two-year college. There is no application, students are evaluated by their college transcript and notified in late spring.

Enrolled Students

In February of each year, students with a minimum 3.50 cumulative grade point average are automatically invited to apply for scholarships. The awards range from \$100 to \$1,000 and are based on academic achievement.

Alumni Scholarships

The Fredonia Alumni Association awards scholarships yearly to students who are directly related to Fredonia alumni. Interested persons should contact the Alumni Affairs office at (716) 673-3553 for more information.

Departmental Scholarships/Awards

Following is a list of scholarships that are awarded through the academic departments. These awards are based on academics, talent and particulars within the discipline. Interested persons should contact the department in their major directly to obtain specific requirements and application procedures for these awards.

Anthropology

Anthropology Honor Award

Art

Robert W. Marvel Award

Athletics

1929 Graduate's Fund-Classical Ballet Scholarship

Sandra Haight Memorial Award

Doris Newman Memorial Award

Biology

Bruce and Nancy Garlapow Memorial

Willard Stanley Memorial Scholarship

Business Administration

Donald C. Brandt Memorial Scholarship

M.R. Poummit Achievement Award

Chemistry

David Dingley Award

Communication

Louis C. Adler Scholarship

Anne Bernstein Memorial Award

Edward S. Edelman Scholarship

Arthur R. Maytum Scholarship

Arlie Muller Parks Award

Computer Science

Arthur R. Maytum Scholarship

John Beck Memorial Scholarship

Cooperative Engineering

Herbert P. Carlyon Scholarship

Cooperative Engineering Scholarship Award

Dance

Orchesis Scholarships 1929 Graduate Fund

Economics

Hart-Gorman Economics Award

Omicron Delta Epsilon Scholarship

Education

Fanny Bartlett Award

Helen Buderkin Award

Helen Kelly Lillie Award

Mabel Smith Melvin Scholarship

Dr. Lawrence A. Patrie Scholarship

Carol Scrace Pierce Award

Louis E. Rath's Scholarships

Byron and Carrie Record Award

Wolfenden Scholarship

English

1929 Graduate's Fund - Nineteenth Century
Literature Award

John and Eleanor Courts Scholarship

Crescence Ehmke Graham Scholarship

Foreign Language

Robert Rie Foreign Language Scholarship

Geosciences

Geosciences Textbook Scholarships provided by: Fahnestock Memorial Fund

Geosciences Alumni Fund

Roy A. MacDiarmid Award

Mark D. and April Hoerner Orgren Scholarship

History

William and Helen Chazanof Award

Mathematics

Frank R. Olson Mathematics Scholarship

Music

Charles D. Arnold Scholarship

Amy Bromeley Piano Scholarship

Elizabeth S. Carlyon Piano Scholarship

Crino Music Classic Guitar Award

Max and Anne Davis Piano Scholarship

Fredonia School of Music String Scholarship

Herbert W. Harp Memorial Scholarship

Hillman Scholarships

Jesse Hillman Memorial Piano Scholarship

Harry King Memorial Award

John A. Maier Memorial Scholarship

Elizabeth Marsh Memorial Scholarship

Howard Marsh Memorial Scholarship

Robert W. Marvel Award

Monroe-Poummit Big Band Award

Vincent Morette Memorial Scholarship

N.Y.S. Federation of Home Bureaus/Elizabeth Marsh Scholarship

Sid Olshein Memorial Scholarship

Piano Faculty Award

Lawrence Schauffler Scholarship

Anthony S. Strychalski Memorial Scholarship

A.L. Van Keuren Memorial Award

Lila Acheson Wallace String Scholarship

School of Music Scholarships are awarded to qualified new and returning students. Factors considered in awarding scholarships are financial need, music talent, academic achievement and service to the School of Music. Students wishing to be considered for scholarship assistance must submit the Free Application for Federal Student Aid. Prospective students must also audition prior to March 15 for fall semester scholarship consideration. Questions regarding music scholarships should be directed to Director, School of Music, Mason Hall.

Physics

Hack Arroe Memorial Scholarship Award

John J. Connelly Physics Scholarship

Incentive Award

John J. Connelly Physics Peer Recognition Award

Physics Department Scholarship Award

Political Science

Erna G. and J. Murdoch Dawley Award

J.R. Soukup Pi Sigma Alpha Awards

Psychology

Psychology Merit Award

Sociology

Outstanding Senior Award

Speech Pathology & Audiology

Esau A. and Susan S. Sam Scholarship
 Schaffer Family Scholarship
 Rebecca Snyder Memorial Scholarship
 Henry C. Youngerman Memorial Award

Theatre Arts

Alice Bartlett Award
 Jack L. Cogdill Award
 Jack L. Cogdill Scholarship
 Keith Cronin Memorial Award
 Gary C. Eckhart Technical Production Award
 Howard E. Marsh Award in Musical Theatre
 Robert W. Marvel Award
 John S. Mintun Scholarship
 President's Award
 Jean Schoener Meritorious Service Award

Scholarships and awards listed below are awarded to incoming students and continuing students who demonstrate outstanding academic aptitude, financial need and/or personal qualifications, and who have been recommended by the College Scholarship Committee. Separate applications are not required, qualified students are automatically considered for these scholarships and awards based on pre-established criteria.

For information on scholarships open to all majors, contact the College Scholarship Committee, Office of Student Affairs, sixth floor Maytum Hall, (716) 6733271.

Scholarships Open to All Majors:

Alumax Scholarship
 Alumni Association Scholarship
 Alumni Transfer Award
 AAUW Scholarship (preference given to women)
 Alice Bartlett Award (international students)
 Beaver Club Scholarship (Fredonia High School senior)
 Borzilleri-Gugino Scholarship
 Roland C. Burton Scholarship
 Children of Alumni Scholarship
 Class of 1939 (preference given to children of alumni)
 College at Fredonia Faculty/Staff Scholarship
 Ruth Tice Callahart Award (outstanding freshmen)
 Laura B. Cole Scholarship
 Evelyn Lawson Coleman President's Scholarship
 Robert E. Coon Recognition Scholarship
 Deming Family International Study Scholarship
 Empire State Minority Honor Scholarship
 Faculty Student Association Awards
 Faculty Student Association President's Scholarship'
 Foundation Scholarships
 Malcolm J. French Memorial Award
 Joseph T. Gallagher Scholarship (preference to minority students)
 Zola Graf Scholarship (Northern Chautauqua County residents)
 Lena M. Harmon Award (Sinclairville, N.Y., residents)
 Velyne and Lynn A. Hawkins Scholarship (Forestville High School students who reside in Sheridan)
 Fanny A. Hayward Award
 S.C.W. Hom Parent Scholarship
 International Student Assistance Fund

George and Elane King Award
Charlotte Putnam Landers Award
Horace O. Lanza Scholarship
Maytum Family President's Scholarship
Vivian R. McCullor Scholarship
Jeanette Wheeler Mills Scholarship (preference given 'to women)
Jenny Crecraft Olsen Award (preference given to women)
Anthony Patti Memorial Award
Robert Rie Scholarship (Vietnam-era veterans or descendants)
Fredonia Rotary Scholarship (Fredonia High School seniors)
Betty Norr Saveth Scholarship
Steele Family Scholarships
Thomas Stocky Memorial
John R. Symans Memorial Award
Undergraduate Alumni Award
Wilma Watson Memorial Scholarship (Cattaraugus County residents)
Louise E. Wilder Scholarship
Yvonne Wilensky Scholarship
Dr. Nelson C. Wood Scholarship

STUDENT ACTIVITIES

The Student Association

The Student Association is made up of all fee-paying students at the College at Fredonia. The Representative Assembly, which is the representative body, is divided into the five classes (freshman through graduate) and has one representative for every 100 students in the class.

These representatives have a very important responsibility. Besides representing their constituents at the assembly meetings, they are individually appointed to faculty committees of their choice. Through these committees, students voice their opinions on such matters as academics, food services and student affairs. Student membership on these committees is not limited to assembly members, however, everyone is encouraged to participate.

The association also has committees and departments of its own which require student input. Legal Services, Off-Campus Housing, and Public Relations offer students a way to help each other and to get practical experience in fields in which they are interested.

The elected officers of the Student Association are the president and vice president. An election takes place every December to select one slate of candidates for the following calendar year. In addition to these elected positions, the president appoints a comptroller, president pro tempore and an executive assistant. All executive offices run from January through December.

Students are encouraged to become involved with the Student Association. The association determines how the resources (activity fee) of the students are allocated and released over the year and submit for approval by the College President an annual budget.

The Student Association Office is located on the main floor of the Campus Center. Students may stop in any time to join a committee, become a representative or just to ask questions. The office is open Monday through Friday from 9 a.m. until 5 p.m.

AIGA/Art Forum

The AIGA/Art Forum presents programs that broaden the awareness of the visual arts; gives interested students the opportunity through participation to develop student and community appreciation for the visual arts; and helps to develop an effective and informal network of professional assistance that is a resource to the profession and the public. The group participates in many activities ranging from exhibitions to weekend trips to New York City and is open to all fee-paying students regardless of major, and faculty and staff.

Black Student Union (BSU)

The Black Student Union is an organization that seeks to promote a feeling of unity and pride among students of African descent as well as provide a sense of cultural awareness throughout the campus community. The BSU contributes to the richness and diversity of student life by sponsoring lectures, artists, dancers, poets and musical productions throughout the year. Some of the organizations' annual events include the People of Color Concerns Conference, the Black Achievement Awards Dinner, a fashion show, the Mr. and Ms. Fredonia State Body Building Contest, and Kwanzaa, an African-American celebration that is an affirmation of cultural self-determination. Such people as Dr. Na'im Akbar, Kwami Toure, Idesha Ida Mae Holland, Dick Gregory, Susan Taylor, Nikki Giovanni and Gwendolyn Brooks are just a few of the many who have joined the BSU family at Fredonia.

College Events Commission (CEC)

The College Events Commission (CEC) is the student organization responsible for planning and coordinating a campus fine arts series, lecture series, and other special events. Each year the commission brings to Fredonia outstanding speakers, dramatic productions, ballet and modern dance, individual performers and musical productions. In the past, CEC has sponsored the "Encore" series and performances of groups such as the Doc Severinson Quartet, the Smothers Brothers, the Mamas and the Papas, the Clancy Brothers and the Four Freshmen. Members of CEC are involved in all aspects of the process including marketing, booking, publicity and production of every performance. Positions are designed to give students experience in a field that interests them. Membership is open to all fee-paying students.

Ethos

The purpose of Ethos is to set and maintain a standard of excellence in music composition; to create an environment within which composition at Fredonia can flourish; to create a vehicle for the performance of student compositions; and to organize two music festivals a year including, as well as student compositions, works by other composers. Membership is open to all fee-paying students, faculty and staff. Activities include attending theory and composition conferences.

Fredonia College Jazz Workshop

The purpose of the Fredonia College Jazz Workshop is to provide a source of education in jazz for the campus community, as well as educational and musical experience in jazz to the local community through concerts and campus sponsored dances. Membership is open to all fee-paying students, staff and faculty.

The Leader

The Leader is the student-run newspaper of the College at Fredonia. It is published each Monday, except for exam periods or breaks, and is supported by advertisers and a portion of each student's mandatory Activity Fee. *The Leader* is run by a student editorial board. All editorial positions are open for election in December, and again in April, if there are any new vacancies. Besides the writing staff at *The Leader*, there are marketing and sales staffs, as well as photographers. Some of these are paid positions.

The Leader requires its staff to have a sincere interest in the highest standards of journalism, including improving writing by following the advice of editors, meeting deadlines, participating in workshops, and remaining accurate and objective. *The Leader* also recommends relevant and appropriate courses to aid staff members. Positions are open to any qualified students. Students interested in journalism, English, business administration (sales, marketing, advertising), photography and graphic arts are strongly urged to join the staff and attend *The Leader* meetings.

Opera Theatre

The purpose of Opera Theatre is to provide a source of education in the production and performance aspects of opera. The opera is represented through live performances, guest speakers and artists, lectures, master classes and other forms of the opera. Membership is open to all fee-paying students, faculty and staff.

Orchesis

Orchesis is a club dedicated to the appreciation of dance as an art form, open to all students, faculty and staff at the college. Classes are held daily in the late afternoon. Three concerts are presented annually; an informal fall and spring concert featuring choreographed work of participating students and a formal concert in the spring semester presenting dances choreographed by faculty and students. In addition, the club sponsors various master classes and performances by guest artists throughout the year.

Performing Arts Company (PAC)

The Performing Arts Company is the student-run theatre group at the College at Fredonia. PAC presents two major productions a year, one per semester, and also funds student experimental theatre and sponsors workshops ranging from performances to technical interior. It is a creative outlet for interested theatre students and is frequently the stepping stone to departmental Mainstage shows.

Spectrum Entertainment Board

The Spectrum Entertainment Board is a student-run organization that selects, books, and produces most of the entertainment on campus. These events include popular concerts and comedy, as well as OffBeat, a weekly local music series, and Unicorn, a weekly folk music series. In addition, Spectrum runs traditional events like Hanging of the Greens and Exam Coffee Breaks, as well as Fredonia Fest. Major concerts have included C & C Music Factory, Crowded House, Lisa Lisa and the Cult Jam, Rob Base, the Ramones, and the Hooters.

WCVF AM/FM

WCVF AM/FM, the campus and community voice of Fredonia, provides Fredonia students and the surrounding community with alternative high quality radio programming designed to inform, as well as entertain. WCVF AM/FM also provides valuable training for those interested in any aspect of broadcast communications.

WCVF 600 AM began operations in the early 1940s and is the oldest radio station in the SUNY system. It programs rock as well as campus news and sports. WCVF 88.9 FM began operations in 1978 and is licensed by the FCC to the SUNY Board of Trustees. It is an associate affiliate of National Public Radio, and broadcasts with a 150 watt ERP stereo signal to a potential listening audience of 40,000. "The Edge" features public affairs, NPR news, and programs a progressive blend of alternative musical styles including jazz, folk, blues, reggae, world beat, and rock, with an emphasis on new music.

WCVF also has fully operational news, production, sales and community service departments. The station is managed and staffed by volunteers. All students are eligible to join, and are encouraged to visit its offices and studios located in McEwen Hall.

WNYF-TV

WNYF-TV is a completely student-operated cable television station located in the lower level of Jewett Hall. The staff takes pride in the fact that it is the only completely independent, fully student-governed television station in New York State (and one of the few in the country). WNYF is a professional television station that gives its student members an intense professional experience in television production. The station cablecasts in the village of Fredonia on a portion of the village cable community access channel and in the city of Dunkirk on the channel designated for college use.

Absolutely no experience is required to join the staff of WNYF and all majors are welcome. Students can learn about what it takes to produce a television program, from operating a camera to directing live and taped programs. Students can even create and produce their own programs. WNYF does everything from news to sports, drama to comedy, visual arts to aerobics.

Interested students should look for the first general meeting announcement at the beginning of each semester, or call 673-3571.

Writer's Guild/Promethean Society

The Writer's Guild/Promethean Society is a student group organized to enhance student writing. It publishes the only literary magazine at the College at Fredonia, including student poetry, fiction and photography. The guild sponsors poetry readings and workshops. In March 1988, the guild brought Marge Piercy, a major female writer, to campus for a workshop and poetry reading and in 1989 concrete poet Mary Ellen Solt. The guild meets twice a month to discuss writing and general business and is open to any student who has an interest in writing or poetry.

Other Student Clubs and Interest Groups

Student life is enriched by the availability of a wide variety of formal and informal group activities, some of long standing, some only newly established. In addition to honor societies, there are service groups, clubs relating to specific majors and career fields, a growing social fraternity and sorority system, and interest groups involved with sports, hobbies, areas of social concern, etc. It is not possible to give more than a sampling here; students who have a specific interest or just want to find out the full range of possibilities, may write to the Student Association (Campus Center, State University of New York College at Fredonia, Fredonia, NY 14063) or stop by the office when on campus. The following list should suggest the range of additional activities available. All department clubs, independent organizations, associations and societies must be recognized by the Student Association in order to have access to campus facilities and association funds.

Accounting Society
Alma Mater Society
Alpha Epsilon Rho
Alpha Phi Omega
American Marketing Association
Amnesty International

Anthropology Club
Applied Communication Association
Audio Engineering Society
BACCHUS
Baha'i Club
Beta Beta Beta
Blackhorse Rugby
Business Club
Cheerleaders
Chi Alpha
Chi Delta Sigma sorority
Chi Tau Omega
Circle K
Computer Science Club
Democratic Coalition
Dance Marathon
Delta Chi fraternity
Delta Phi Epsilon sorority
Drill Team
Economics Club
Engineering Society
Fredonia State Mountain Bike Club
The Fredonian
Gay, Lesbian, Bisexual Student Union
Geology Club
German Club
Gospel Choir
Guitar Society
Health Services Administration Association
Help Service
Hispanic Society
Hotline for Rape and Battering
Human Communication Club
Inter-Greek Council
Inter-Varsity Christian Fellowship
International Culture Association
Investment Club
Intramurals
Jewish Student Union
Lacrosse Club
Medieval Re-enactment Club
Media Council
Medical Tech.
Mens Volleyball Club
Music Educators National Conference (MENC)
Music Therapy Club
Mutual Investment Club, Inc.
Native American Student Association
Newman Club
Omicron Delta Epsilon
Panhellenic Council
Phi Kappa Sigma fraternity
Phi Mu Alpha Sinfonia fraternity
Philosophical Society
Physics Club
Political Science Association
Project Environment
Psychology Club
Resident Assistant Advisory Board
Sigma Alpha Iota
Sigma Kappa sorority

Sigma Phi Epsilon fraternity
Sigma Tau Pi
Sisters for Sisters
Ski Club
Sociology Club
Sound Services
Spanish Club
Speech Pathology & Audiology Society
Student Parents Involved in Education (SPIE)
Tae Kwon Do Club
Teacher Education Club
Trumpet Guild
Upper Class Buddy System
The War Games Club
Wellness Club
Wilderness Club
Womens Student Union
Wrestling Club

The formal and informal activities mentioned above are further supplemented by some traditional events in student campus life which normally involve large groups of students. They include the following: Activities Night, All-College Events, the Dance Marathon, and Homecoming.

OTHER CAMPUS ACTIVITIES

The groups and activities previously mentioned are further supplemented by some other non-classroom events and activities in student campus life. This section lists a sampling of these other activities.

Alumni Association

Membership in the Alumni Association of the State University of New York College at Fredonia is open to enrolled students, graduates of the college, and present and retired faculty members.

Supported by alumni gifts and student dues, the association provides all its constituents and parents with its quarterly publication, the *Statement*.

Contributions are primarily used to support scholarships and grants for deserving students, student recruitment, career counseling, Homecoming Weekend, and various programs for which funds are unavailable through normal state sources.

Dues-paying students are encouraged to participate in the Undergraduate Alumni Council (UAC) and the Ambassadors which assist in the coordination of alumni/student activities. Students in both groups are considered for Undergraduate Alumni Awards. These \$500 awards are annually given to those UAC members who are in good academic standing and have shown an interest in improving the quality of campus life by their extra-curricular involvement.

Art Exhibitions

Each season, many art exhibits are presented on campus. The 2,000 square-foot Michael C. Rockefeller Arts Center Gallery hosts several traveling contemporary art exhibits sponsored by AIGA/Art Forum, a student organization. The emphasis of these shows is on contemporary work in painting, printmaking, photography, sculpture and graphic design. The gallery also hosts exhibits by the art department faculty and students. All exhibits feature a public reception open to students, faculty, and community residents.

The Emmitt Christian Gallery on the second floor of the arts center is used to exhibit class projects, visiting artist work, and other small exhibits throughout the year.

Athletic Activities

Intercollegiate and intramural athletic programs are conducted under the direction of the Department of Health, Physical Education, Athletics, and Dance and are supported from funds appropriated by the State of New York and mandatory student fees.

Intercollegiate teams for men are organized in baseball, basketball, cross-country, ice hockey, soccer, tennis, and track; and for women in basketball, cross-country, soccer, tennis, track, and volleyball. Intercollegiate competition is governed by the appropriate national, regional, and state organizations. A rule common to all governing organizations is the requirement that all participants be full-time students carrying at least 12 semester hours of academic credit. Specific questions may be directed to the Department of Health, Physical Education, Athletics, and Dance.

The Intercollegiate Athletic Board (LAB) represents the faculty and student body in advising the College President on matters of intercollegiate athletic policy. Requests for new activities are normally reviewed by the department chairperson and then by the Intercollegiate Athletic Board.

An extensive intramural and recreational athletic program is conducted in mens', womens', and co-ed sports. Activities include basketball, broomball, softball, soccer, racquetball, touch-football, wallyball, innertube basketball, beach volleyball, innertube water polo, tennis, and volleyball.

Music Faculty Performances

Throughout each academic year, members of the artist faculty of the School of Music present public recitals. Most often the performances feature an individual faculty member; on occasion, however, several faculty members join together to present a program. Performances are also presented each year by the Fredonia Woodwind Quintet and the Concord Brass Quintet.

The Fredonia Chamber Players, an independent, regional chamber orchestra, is an ensemble-in-residence at the Fredonia School of Music. The chamber players present series of concerts on campus and is also active in presenting concerts and educational events throughout the area. The orchestra is comprised of faculty, other area professional musicians, and outstanding School of Music students, with repertoire spanning all stylistic periods.

Visiting Artists, Ensembles and Speakers

The College at Fredonia has a rich cultural life, not only because of the many artistic events produced on campus, but also because of a full schedule of visiting artists and speakers, many brought to campus by the College Events Commission and the Spectrum Entertainment Board.

The Rockefeller Arts Center sponsors a travelogue film series in which leading documentary film producers personally narrate 16-mm films of other lands and customs.

The Rockefeller Arts Center also sponsors the annual *Kaleidoscope* series which brings five professional touring companies to campus in productions geared especially for children and family audiences.

Each season, the *Someplace Special Pops Series* presents four evenings of musical relaxation and enjoyment. Guest ensembles on the series have included the Glenn Miller Orchestra, the Classic Buskers, and the Epic Brass. Also appearing on this series has been the Fredonia Chamber Pops Orchestra with programs spotlighting students and faculty from the School of Music and musical theatre program.

Student Music Activities

The following music activities provide opportunities for development of proficiency in performance and for personal enjoyment for the performer, the college, and the community. Activities which music majors may elect for the music ensemble participation requirement are indicated by an asterisk (*).

**The College Symphony Orchestra* is open to all students by audition and offers complete instrumentation and a repertoire of major works of classical, romantic, and modern orchestral and operatic literature. Maintaining high standards of performance, it performs several times each year.

**The Symphonic Winds* is a select ensemble of approximately 50 members. It performs advanced concert band literature, emphasizing contemporary works. The Symphonic Winds is a touting group.

**The All-College Band* is an organization of approximately 80 members who provide a well balanced instrumentation for the performance of works from the literature available for this medium. Membership in the All-College Band is open to all students. An audition is not required.

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**The Fredonia Chamber Singers*, a group of 24 mixed voices selected by individual auditions for musical ability, flexibility, quality, and rhythmic sense, performs frequently both on and off campus. The chamber singers is a touting ensemble.

**The College Choir*, with approximately 60 selected mixed voices, studies and performs major choral works in addition to standard sacred and secular music. It has appeared with the Buffalo Philharmonic Orchestra and has performed at Philharmonic Hall, Lincoln Center in New York City, and with the Utica and Syracuse Symphony and Rochester Philharmonic orchestras. The college choir is a touting ensemble.

**The Festival Chorus*, the college's largest musical ensemble, performs masterpieces of choral literature, usually with orchestra, such as Beethoven's Symphony No. 9, Handel's *Messiah*, Mozart's *Requiem*, Orff's *Carmina Burana*, Rachmaninoff's *The Bells*, Vaughan Williams' *Hodie* and Verdi's *Requiem*. The group has performed with the Buffalo Philharmonic Orchestra, Fredonia Chamber Players, and College Symphony Orchestra.

**Ensembles*. The School of Music offers several ensembles for interested students:

Piano Ensemble - systematic study in piano sight reading and accompanying.

Percussion Ensemble- performs mainly contemporary works.

Saxophone Ensemble- performs original and transcribed works.

Small Ensembles - perform basically chamber ensemble literature and include woodwind, string and brass trios, quartets and quintets, and clarinet and trombone choirs.

Membership and guidance are determined by the School of Music faculty.

**The Lyric Theatre Workshop* provides a workshop situation for students to deal with repertoire which has limited production requirements. The wide range of possible experiences provided includes performing, conducting, directing, design and management.

The *Opera Theatre* provides experiences with a variety of types of full-scale musical theatre works presented in cooperation with the Department of Theatre Arts. Recent musical productions include *Brigadoon*, *Company*, *Cabaret*, *Hair*, and *On The Twentieth Century*. Recent opera productions include Humperdinck's *Hansel and Gretel*, Floyd's *Susannah*, Menotti's *Amahl and the Night Visitors*, Mozart's *Così fan Tutte*, Puccini's *The Mikado*, and Sullivan's *HMS Pinafore*.

The *Jazz Workshop* is structured to foster wider understanding of and the ability to perform different styles of jazz. The jazz ensemble, the major performance group in the workshop, has produced several records and won many national and international awards at festivals. Other ensembles in the *Jazz Workshop* program serve as training groups to familiarize musicians with jazz rhythms, improvisation, arranging, and other basics of jazz.

Student Recitals are presented throughout the academic year on weekday evenings and Saturday and Sunday afternoons and evenings. These recitals are a curricular requirement for many music majors.

The Music Educators National Conference, Student Chapter 151 at the College at Fredonia, is affiliated with the New York State School Music Association. The activities of the chapter encourage professional interests and ideals.

Ethos was founded to promote the performance of twentieth century music on the campus and sponsors a minimum of two concerts per semester featuring the works of student, faculty, and

other twentieth century composers. It also sponsors field trips to concerts in adjoining major metropolitan centers and the scheduling of guest composers' visits to the campus. Involvement in the activities of Ethos is open to all students enrolled in the college.

The *Music Therapy Club* is affiliated with the Mid-Atlantic Region and National chapters of the National Association for Music Therapy. Activities of the club encourage the professional interests and growth of the students entering the field of music therapy.

The *Audio Engineering Society* student chapter at the College at Fredonia was organized to promote the professional growth of students. The chapter arranges for guest speakers, field trips and other activities addressing the audio industry.

Theatre Activities

Mainstage Productions. Five major theatrical productions are presented each year. These efforts of the Department of Theatre Arts have become known for their excellence in all aspects of production, from outstanding acting, singing and dancing to magnificent scenery, lighting and costumes. Auditions and production work are open to all students.

STUDENT SERVICES

The college provides a variety of services and programs designed to support and enhance its educational program and to assist students in solving problems that may interfere with their academic achievement. These services are directed and implemented by a trained professional staff.

Student Activities Office

The Office of Student Activities, located in the Campus Center, is responsible for making the out-of-class experience both enjoyable and educational. By working directly with several major student organizations and being available as a resource and advisement source for all student clubs and groups, the staff strives to reach a balance between recreational, educational and entertainment activities.

In addition to group advisement and counseling, the Student Activities staff is responsible for maintaining leadership development programs and training workshops for organizations and advisors, planning Parents' Weekend, Summer Orientation, Winterrest Weekend, and works closely with the Homecoming, Commencement and Conference committees. The official college activities calendar is maintained in this office, and, through the Campus Center Director, all room reservations for meetings and activities are made.

In addition, the Student Activities/Campus Center Office operates the Fredonia Travel Service which offers charter bus services at the beginning and end of each semester and for major holidays to the Southern Tier, New York City and Long Island areas.

The Campus Center lobby is open Monday through Friday, 8 a.m. until midnight, and Saturday and Sunday from 11 a.m. until midnight, during the academic year.

Central Box Office

The Central Box Office is an all-service outlet located on the main floor of the Campus Center. Its main business is in providing tickets for events on campus and in the outlying areas of Buffalo and Jamestown, N.Y.; at Chautauqua Institution, and in Canada. Tickets for theater, and rock and classical concerts, plus bus transportation throughout the U.S. and Canada, are available to students and the general public. The box office also distributes tickets for Commencement. Campus Community Bus, Greyhound, Niagara Scenic and Trailways charters, passes, schedules and tickets are available from the box office, and Amtrak schedules and tickets for the New York State area are available on 24 hours notice. Other services include Western Union Mailgrams, telegrams and money transactions. The box office is open during the academic year Monday through Friday from 9 a.m. until 5 p.m., and Saturday from 11 a.m. until 4 p.m.

Career Development Office

The Career Development Office provides a link between the campus and the world of work. For freshmen through alumni, assistance is available in three broad areas:

- counseling for career exploration and career planning
- teaching effective job search skills
- assistance in applying to graduate or professional school

Students are encouraged to clarify their reasons for attending college; to identify interests, skills and life goals; to examine entry and advancement requirements for career fields of interest; and to develop a plan to support them in pursuit of their goals. As graduation approaches, students can develop skills useful in effectively communicating their accomplishments and potential for future contributions to graduate and professional school admissions personnel or to prospective employers.

Outline of Services

DISCOVER. This computer-assisted career decision-making program identifies possible majors and occupations based on interests, abilities, experiences and values. The program also provides information about each occupation.

Individual Counseling. Students are encouraged to utilize the computer, workshops and self-help materials in combination with individual appointments with the professional staff. They are urged to contact the office *early* in their college experience to examine the expectations they may have for a degree program, major, and possible occupations.

Workshops. The following workshops are offered frequently for interested students. For a schedule, students should visit the office on the fifth floor of Maytum Hall or call 673-3327. '

Using DISCOVER

Applying to Graduate and Professional School

Writing Your Resume

Getting Started with Your Job Search

Effective Interviewing

Career Information. Books, magazines, pamphlets, articles and videotapes about careers are arranged for easy browsing. They contain information about work tasks, preferred academic background, personal qualities and experiences, salary, hiring organizations, and job market. They are also available for overnight sign-out.

Job Search Information. Books and videotapes about writing a resume, how to look for a job, writing cover letters, interviewing and sample resumes are available.

Resume Review. An hour is designated daily when a counselor is available on a walk-in basis to review rough drafts of resumes and discuss suggestions for improvement.

Videotaped "Practice" Interviews. A staff member will conduct a brief interview. The interview will be videotaped, played back and discussed, with suggestions being made for improvement.

Instant Info. Series. These self-help guides are written on a number of topics related to career choice, job search, and further study.

Employer Directories. Directories containing names and addresses of organizations to contact are arranged by the following categories: geographic location; business and industry; education; health, human services and government; and arts and media.

Recruiting Literature. Large organizations and many school districts often produce brochures describing their career opportunities. Business and industrial organizations may also provide a copy of their annual report.

Credentials File. Students in their final year of study are eligible to establish a file which includes a resume, course list, transcript and letters of recommendation, to be sent to prospective employers or graduate admissions personnel to support an application.

Electronic Resume and Referral Service. Using a software package called Resume Expert Plus, students can learn how to write a resume, write one on disk, and get a laser-printed copy. They can also use the software to participate in regional and national electronic recruitment networks, as well as in the Career Development Office electronic referral database.

Employer Referral Service. Candidates are invited to file a resume with the Career Development Office for each career area or field of study consistent with their goals. Resumes for a particular field are forwarded for screening at the request of an employer.

Job Vacancy Listing. Vacancies received are posted daily in the office and are compiled weekly for those desiring to receive them by mail.

Recruitment Calendar. Each year organizations visit the campus to interview students about to complete a degree program. In addition, students can participate in special annual programs such as Meet the Accountants Night, Teacher Recruitment Days, Human Services Career Day and the Career Fair. The Recruitment Calendar, published each semester, includes the dates for these events as well as dates for similar events held in other geographic locations.

Follow-up Study on Graduates. Each year the office contacts the graduates of the college to determine their plans for the first year after graduation. Members of each class choose to accept diverse opportunities for further study and employment.

The information is collected in the early fall of each year, with an approximate response rate of 60 percent. Business and industrial organizations are the most frequent first-time employers of Fredonia graduates, followed by education, government agencies, non-profit or service organizations, media or arts organizations, and self-employment.

Graduates are pursuing advanced degrees in science, law, business, education, music, medicine, and a variety of other disciplines at graduate institutions across the country, many widely recognized for their excellence. A detailed report on the current year's class is available upon request from the Career Development Office. This report includes a listing by major of the job title and employer for those graduates securing jobs, and the degree program and institution for those graduates who have enrolled for advanced degree studies.

Faculty Student Association

The Faculty Student Association (FSA) is a not-for-profit corporation that operates the auxiliary services on the Fredonia college campus. The FSA Administrative and Food Services offices are located in Gregory Hall, second floor. For information call 673-3417.

Food Service

The FSA operates two full-service cafeterias on campus: Cranston Dining Center and Erie Dining Center. These facilities feature traditional meals and specialty items. Dining centers are open Monday through Friday from 7:30 until 10 a.m. for breakfast, from 11:00 a.m. until 1:30 p.m. for lunch, and from 4:30 until 6:30 p.m. for dinner. Erie Dining Center is open on Saturday and Sunday from 10 a.m. until 2 p.m. for brunch and 4:30 until 6:30 p.m. for dinner. When the college is officially closed and classes are not in session, services are not available in dining centers.

There are also several specialized restaurants in the Campus Center. They are the Expressway, featuring hamburgers, French fries and other "fast food;" the Kitchen, serving pizza, wings, subs and sandwiches; Connections, with its variety salad bar and freshly-made deli sandwiches; and the Topiary Tree, a table service restaurant open Monday through Friday.

Arrangements can be made through our Food Service Nutritionist for special dietary needs and nutritional counseling.

College policy requires dormitory residents to select from a variety of meal plans. (Please refer to page 36 for Food Plan information).

Catering services, ranging from coffee breaks to full-service banquets are available throughout the year. Contact the FSA office for further information.

Other Services

ID Cards - A college ID card is required of all enrolled College at Fredonia students. These cards are issued at no charge by the FSA office when students begin their studies at Fredonia and are revalidated each year. In addition to being a required form of identification on campus, they are also the official card used for all meal plans. A service charge is assessed for lost cards.

The Campus Center Store (Bookstore) provides new and used textbooks, as well as a variety of general subject books. Located on the second floor of the Campus Center, the bookstore also offers school and art supplies, teaching aids, calculators, health and beauty aids, college seal items, clothing, greeting cards, and a unique array of gift items.

The FSA provides for check-cashing on campus. Students who possess a valid Fredonia college I.D. card may cash checks in the bookstore and Parkway Market. In addition, electronic banking machines are available on the first floors of the Campus Center and Gregory Hall.

FSA's vending program on campus includes candy, snacks, beverages, and a variety of other items. In addition, it also provides the vended washers and dryers in the residence halls, and various amusement games in the Union Park (snack bar) game Room.

The Herbert C. Mackie Memorial Camp (College Lodge) in Brocton, located 12 miles from the campus on Route 380, is a 193-acre refuge featuring a beautiful and rustic lodge and hiking trails. This facility is available by reservation for parties, cross-country ski outings, and other events. The camp also has a sleeping lodge, recently completed, which will accommodate up to 90 people.

University Card - A student pre-paid card can be used for purchases in the bookstore or Parkway Market (convenience store). This card affords the student the convenience of making purchases without carrying cash.

Student Employment - FSA, one of the largest student employers on campus, provides jobs ranging from 10 to 20 hours per week for approximately 400 students. A variety of student jobs are available, with the majority being in the food service areas. These jobs are not based on financial need.

Department of Public Safety

The Department of Public Safety, located at 117 Gregory Hall, is responsible for all law enforcement matters on campus.

Members of the department are responsible for the security of all buildings on campus and the protection of students, employees, and visitors. Duties include strict enforcement of campus parking regulations, and investigation of all vehicular accidents and complaints of a criminal nature.

Inspection of all buildings for fire and safety codes and the maintenance of fire extinguishers, alarms, and equipment are also the responsibility of the Department of Public Safety. Members coordinate fire drills in accordance with state regulations and respond to all alarms.

The Director of Public Safety is assisted by three supervisory officers and 11 officers. The office maintains a close liaison with the Fredonia Police Department, Fredonia Fire Department, Chautauqua County Sheriffs Department, and New York State Police Department.

Help Service

Help Service, Inc. is a 24 hour crisis intervention hotline and referral agency serving students at Fredonia and other residents of Chautauqua County.

Staffed by trained student and community volunteers, free and confidential services are available year-round. Emphasis is placed on listening with empathy, offering emotional support, and helping the caller evaluate alternative solutions to problems.

Callers may remain anonymous. Counseling Center staff provide training, supervision and back-up support for volunteers. Help Service maintains listings of county-wide referrals. To reach Help Service, students can 673-3133.

Two other programs associated with Help Service, Inc. are Counsel tapes and Small Talk. Counsel tapes are short informational audiotapes on a variety of subjects including personal growth, sexuality, legal problems, drugs and many more. The telephone number for Counsel tapes is 673-3211. Small Talk is a telephone line designed for children who are alone without immediate adult supervision. Children can call 673-3212. Like Help Service, Counsel tapes and Small Talk operate 24-hours a day, year-round. For further information about services or volunteer opportunities, contact the Counseling Center at 673-3424.

Housing/Residence Life

On Campus. Because the college realizes that an important part of students' total educational development is the housing unit in which they live during their stay in Fredonia, the Office of Residence Life attempts to provide students with facilities conducive to adequate study. Through the learning experience of group living, resident students acquire a greater awareness and

understanding of themselves and their ideas, and a greater concern for and consideration of the other members of the community.

Although on-campus housing is reserved for matriculated undergraduate students, the college will accommodate single graduate students if space is available.

Freshmen and sophomores who do not live with parents or spouses are required, as a matter of policy, to live in college housing for the full academic year. Any exemption to this regulation such as permission to live with relatives other than parents must be granted, in writing, by the Director of Residence Life.

Assignment to a residence hall is based on the date of submission of a completed housing packet, which includes an application, a contract, and a room deposit.

Residence hall activities attempt to integrate resident living experiences with the total educational program of the college. The residence halls are modern, comfortable, and convenient and allow a student the opportunity to establish independence and experiment with a variety of activities and experiences. Through hall government, students have opportunities to participate with other students in programs of their own choosing, to work on projects of interest to themselves and of service to others, and to communicate students needs and concerns to the college. Although much of the responsibility for governing the halls lies with the student, an experienced and professionally trained staff member is in charge of each residence hall. The residence director, whose major concern is student welfare, is assisted by several undergraduate students. They work with and advise students within the residence halls to develop broadly based educational and social programs which serve to offer opportunities for growth and involvement within the living situation.

Detailed information about college housing facilities for single students will be provided upon request by the Office of Residence Life, Gregory Hall, State University of New York College at Fredonia, Fredonia, NY, 14063.

Regulations governing occupancy of residence hall rooms will be provided by the Office of Residence Life at the time the housing packet is forwarded to students. All occupants within the halls are expected to comply with the appropriate regulations.

For the cost of housing, see the section on Expenses and Financial Aid (page 35).

Off Campus. Files of available off-campus housing are maintained in the Student Association Office located in the Campus Center, and in the Office of Residence Life.

Office of Veterans Affairs

Veterans and their dependents who receive educational benefits through the Veterans Administration are assisted by this office. For example, applications are processed in this office and students experiencing problems with benefits receive assistance or referrals. This office also serves as campus liaison with the V.A. Regional Office in Buffalo. The office is located in 3176 Mason or call 673-3423.

Counseling Center

The purpose of the Counseling Center is to help students grow as persons - emotionally, socially, and academically. Professional counselors work individually or in groups to help students understand themselves better, resolve problems, and deal with important decisions. Counselors do not tell students what to do, but emphasize the ultimate responsibility of each person to conduct his/her life.

All students may use the center without charge. Appointments can be made in person or by telephoning 673-3424. Counseling is strictly confidential and no information is released to anyone without the student's written consent.

Services Include:

Personal Counseling. Students may talk with a counselor individually or in a group with other students about personal, social, or educational concerns. Typical concerns include relationship

problems, making friends, dealing with parents or roommates, adjusting to school, and self-esteem problems.

Personal Growth Group. Opportunities to better understand oneself and others, improve communication skills, and receive feedback from other people can be gained from a student's participation in a personal growth group. Specialized groups may be formed for nontraditional students, adult children of alcoholics, eating disorders, survivors of sexual abuse, men's consciousness raising, etc.

Short-term structured groups are also available for stress/anxiety management, assertiveness training, and coping with depression. Center members are available to present workshops on similar topics to campus groups.

Consultation. Consultation, workshops, and in services are available to students, faculty, and staff on such topics as group interaction, study skills, and coping with change in residence halls, work units, or other campus groups. Counselors are also available (on a time-limited basis) as mental health consultants to members of the college community as they become involved in the acute or chronic problems of students or colleagues.

National Testing Programs. The Graduate Record Examination (GRE), the National Teachers Examination (NTE), the Law School Admission Text (LSAT), and the Graduate Management Admissions Test (GMAT), are all administered by the center. Information on these tests and their administration dates can be obtained by calling or visiting the Counseling Center office.

Career Information Center (CIC). In conjunction with the Career Development Office, the Counseling Center maintains a Career Information Center in Maytum Room 502. Information about career opportunities, employer recruiting brochures, and graduate/undergraduate college catalogs are available in this self-help resource center.

Additional assistance in using the center's resources is available from the professional staff and career information assistants.

Student Health Service

The Student Health Service located in LoGrasso Hall is under the direction of the college physician and a staff of registered nurses, providing health service delivery to all registered students. The health service is funded in part by the health fee paid each semester. Services and most medications are free with the exception of allergy injections.*

The outpatient clinic cares for minor illnesses, injuries, referrals, counseling, health education and laboratory services. This well-equipped modern health center provides 8 a.m. to 8 p.m. coverage Monday through Friday, and Saturday from noon until 4 p.m.

Emergency weekend coverage is available at Brooks Memorial Hospital in Dunkirk. Some laboratory procedures, minor surgery, and emergency care are also available in the health center.

Health and accidental insurance is essential for all students. Experience indicates that students not covered under a personal comprehensive health plan should arrange to purchase the health plan made available to all registered students through the college. A comprehensive group policy is provided through the Office of Student Affairs at modest cost for those not otherwise covered. Although campus facilities are not available for long-term treatment of either physical or mental illness, Brooks Memorial Hospital is only two miles from the campus.

When necessary, referrals will be made with private physicians in the area by the health center staff.

A van service is available certain hours for transportation to local physicians, the hospital, or the Chautauqua County Health Department.

Birth Control Information-Center - Staffed by trained student volunteers, the Birth Control Information Center is open to all College at Fredonia students, male or female. Located in

LoGrasso Hall, the gynecological clinics are staffed by qualified physicians, nurses, a lab technician, and volunteers. Students can use the BCIC for information on contraceptives, human sexuality, and to receive gynecological services. The center is totally funded by the Student Association and placed under the direction of the health center. Minimal charges are made for clinic services and supplies.

*Subject to change on a yearly basis.

SUPPORT SERVICES

College offices are open from 8:30 a.m. until 5 p.m. Monday through Friday during the fall and spring semesters, and from 8 a.m. until 4 p.m. during the 'summer.

Computer Center

The college provides students and faculty with extensive computing facilities in both time-sharing and batch modes. Access to these facilities is made from terminals which are located in McEwen Hall and in many other locations on campus, including residence halls. More than 300 terminals are connected to the college's large scale Unisys A1 2T computer system which is housed in Maytum Hall. Approximately 100 of these are provided for general academic use. In addition, the system may be accessed from other locations by telephone. Numerous microcomputers are used to supplement the main system, and are available at various locations. The center also houses the dedicated computer system used to provide automation services for Reed Library. Access to the library's on-line catalog is provided from all terminals connected to the A12T as well as from catalog terminals in the library.

A12T features include a main memory in excess of 96 million characters, on-line disk storage in excess of 8.5 billion characters, five tape drives, and two high speed line printers. The system supports many computer languages including ALGOL, APL, BASIC, COBOL, FORTRAN, LISP, PASCAL, PROLOG, and SNOBOL. Statistical packages available include SPSS-X and MINITAB. Simulation games, text formatters, electronic mail, graphics, BITNET access, Internet access, and computer-assisted instruction are also supported on the system.

Unlimited computer access is provided to all students whether or not they are enrolled in a course which requires computer access. Student instruction in computer usage is provided by many academic departments. Instruction in computer programming is provided by the Department of Mathematics and Computer Science, which also offers an undergraduate major in Computer and Information Science.

Since 1984 the Department of Mathematics and Computer Science has operated its Computer Science Laboratory, a dedicated facility currently consisting of a SUN 4/470 Server, a MicroVAX-II and several work stations on a high speed network. These computers use the UNIX operating system, service 20 terminals in the laboratory, several dial-up lines and additional terminals at other campus locations, as well as provide Internet access to computers all over the world. The facility is used by the department to support intermediate to upper level course work in computer science, and the scholarly work of faculty and students. The laboratory is maintained by a faculty director and student assistants.

Creative Support Services

Creative Support Services, located in Thompson Hall, is responsible for the acquisition, production, and integration of modern educational technology into the instructional program. The professional staff is available through consultation and center-sponsored workshops to assist faculty in maximizing the use of educational technologies which enhance the effectiveness of teaching and improve the environment for the teaching-learning process. It provides support for classroom instruction, assists in the preparation of materials for research and publication, maintains instructional facilities, and supports college outreach programs.

The following support services are available:

Visual Production (photography/graphic arts)

Media Services/Media Center

Engineering

Students are encouraged to utilize Creative Support Services, including the Media Center located in W203 Thompson Hall, which houses speech pathology and audiology materials, computer software, a student graphics lab, mainframe terminals, Unisys (IBM compatible) and Apple/Mac microcomputers, in addition to audio visual equipment to support classroom projects.

This service is administered under the auspices of the Office of Creative Scholarly Support Services (page 10).

Reed Library

Reed Library plays a key role in the teaching and learning process at Fredonia as students and faculty make heavy use of the nearly 400,000 volumes, more than 1,200 journal subscriptions, and collections of microforms, videotapes, musical scores, records, tapes, and compact discs. Separate areas within the library include the Music Library with its more than 15,000 recordings and 30,000 scores, and the Special Collections room. Special Collections includes materials related to local history, the college archives, the records of the Holland Land Company, and books and manuscripts of the noted Austrian author Stefan Zweig.

Librarians provide orientation tours and instruction in the use of information sources to student groups and all academic disciplines. Reference librarians are available to answer specific questions and to advise students on search strategies. A series of pamphlets and guides to the collections have been prepared to assist students in their use of the library.

Significant physical improvements and technological innovations have been made to the library in recent years. Particularly significant are an addition to the library and renovation of the main building scheduled for completion during 1993. These changes provide more space for library materials as well as state-of-the-art study areas for faculty and students. The library has installed a computerized system that allows students and faculty to search the library catalog from terminals in the library as well as from other locations on and off campus. Another technological advance is found in numerous computerized indexes and data bases. Together with the on-line catalog these systems have radically improved the way that patrons of the library gain access to information.

Two services are available to students, faculty, and staff who are in need of materials that the library does not own. The interlibrary loan service locates and obtains such materials, and the SUNY Open Access program permits users to borrow materials directly from all other SUNY libraries.

Reed Library is open at the following times during the academic year: Monday through Thursday, 8:30 a.m. to 11 p.m.; Friday, 8:30 a.m. to 5 p.m.; Saturday, 1 to 6 p.m.; and Sunday, 1 to 11 p.m. Hours are extended during the exam period at the end of each semester, and are reduced during intersessions and summer school. For more information on Reed Library and its services call 673-3222.

Henry C. Youngerman Center for Communication Disorders

The Henry C. Youngerman Center for Communication Disorders is located in Thompson Hall. The center, a major component of the Department of Speech Pathology and Audiology, contains an Audiology Clinic, a Speech-Language Clinic, laboratories and classrooms. Speech, language, and hearing evaluations and treatment are provided to students and residents of the neighboring communities. Students in speech pathology and audiology participate as observers and as clinicians under the supervision of fully licensed and certified speech pathologists and audiologists.

The Reading Center

Located in Thompson Hall, the Reading Center serves the undergraduate and graduate programs for the preparation of teachers. The center provides a laboratory for graduate students preparing for professional positions as reading specialists, reading teachers, supervisors, or consultants, or for positions as regular classroom teachers, supervisors, special education personnel and counselors.

In addition to training master's level candidates in the diagnosis and remediation of reading difficulties, the center also offers specialized services for college students who have need of assistance in the diagnosis and/or remediation of their own learning difficulties stemming from reading inadequacies.

A third function of the center is the collection of data useful in investigating the causes and possible treatment of reading difficulties.

The Fredonia College Foundation

The Fredonia College Foundation, Inc., a not-for-profit corporation, was formed in 1964 to encourage and accept gifts and endowments in support of the priority needs of the State University of New York College at Fredonia, its faculty and students.

In order to maintain the quality of academic offerings at Fredonia and to realize the college's commitment to public service for western New York and the state, the college must look to non-state sources to assist in its development. The foundation seeks support for scholarships and those programs and events that enrich the college and community which cannot be supported by state funds.

Contributions from alumni, parents, friends, faculty/staff, business and industry, the professions, foundations, and other public and private sources have strengthened many college programs. Gifts of appreciated stock, real estate and insurance, as well as gifts in kind, works of art, books, equipment and teaching materials have enabled the college to move forward, even in times of budgetary restraint.

The Learning Center

The Learning Center provides tutoring in academic subjects to any member of the college population. The center's peer tutoring program is run on a drop-in basis, at no cost to the student. Subjects tutored include writing, math, computer science, business administration (including accounting), economics, statistics, biology, chemistry, physics, and foreign languages. Fredonia's Learning Center was rated the best in the SUNY system in a recent Student Opinion Survey administered by the American College Testing service.

Apple IIe and Compaq microcomputers with programs in BASIC programming, chemistry, calculus, algebra, and word processing are part of the center's resources. Also available are terminals to the Unisys mainframe computer which can be used by students when they are not required for tutoring, as well as terminals for a minicomputer in the Department of Mathematics and Computer Science. The center also houses the late evening study lounge. For more information, visit The Learning Center in Gregory Hall.

Applications are accepted for tutoring positions in March. Final decisions are made by the end of April after a series of interviews. Tutors are then hired for both semesters of the following academic year.

UNDERGRADUATE ADMISSIONS

Submitting the Application

The State University of New York College at Fredonia participates in a common SUNY application procedure. Residents of New York State may obtain a copy of the common application form from a high school guidance office or from any of the SUNY campuses. Applicants residing out of state or currently attending a non-SUNY college should write directly to the Office of Admissions, Fenner House, State University of New York College at Fredonia, Fredonia, NY, 14063. Completed applications are mailed directly to the Application Processing Center in Albany where they are processed and sent to Fredonia. Applicants should allow two to four weeks for delivery, depending on when the application is mailed. Each application is reviewed individually by the Fredonia Admissions Committee.

Applications should be submitted by November 1 for the spring semester and March 1 for the fall semester. An early application is encouraged, as some academic programs have a limited number of available spaces.

The Campus Visit

A campus visit is extremely important. It is a student's opportunity to learn more about the college from those directly involved in the educational process at Fredonia.

Students are invited to visit the campus to discuss their application with an admissions counselor, meet with a faculty member in a chosen field of study, and tour the facilities. Small group information sessions and Campus tours are offered weekdays while classes are in session. A number of special visitation programs are offered throughout the academic year including selected Saturdays. Holiday Open House programs are offered on Columbus Day, Veterans Day and President's Day. A limited visitation schedule is offered during the summer. Information about specific dates and times for arranging an appointment may be obtained by writing the Office of Admissions or calling (716) 673-3251 or toll-free from New York State, (800) 252-1212.

An Open House for accepted students is scheduled during the spring semester. During this program, members of the college faculty, administration, and student body discuss curricular options, financial aid, social and cultural activities, the residence halls, student services, and academic services.

The campus is situated in the village of Fredonia at Exit 59 of the New York State Thruway (Interstate 90), 40 miles from Buffalo, N.Y. The Southern Tier Expressway provides an alternate route to the campus. Visitors traveling by air are advised to use the Greater Buffalo International Airport where taxi or bus service is available to the bus station in Buffalo. Several buses operate daily between Buffalo and Fredonia. Amtrak provides rail service into the city of Buffalo. Visitors should check with a local travel agent to determine the best connections. A Visitor's Guide listing local accommodations is available from the Office of Admissions.

The Decision Process

Approximately two-thirds of all new freshmen are admitted to a specific academic major, although the decision to declare a major is optional and may be delayed until the end of the sophomore year. Since some programs are highly specialized and require careful academic planning, students may wish to discuss declaration of a major with an admissions counselor. Transfer students who have earned 45 or more credit hours must express their choice of an academic major when applying for admission. Applicants will be notified by mail of an official decision after the Office of Admissions has received all required credentials. All acceptances are conditional upon receipt of a high school or college transcript indicating successful completion of courses in progress and upon receipt of a favorable medical report and evidence of appropriate immunization. Students are asked to submit an advance deposit by November 1 for the spring semester, May 1 for the fall semester, or 30 days after their acceptance, whichever is later.

Advance deposits secure a place in the class and room in a residence hall for a specific semester and are not transferable to another semester. Requests for refunds must be made in writing to the

Director of Admissions prior to May 1 (for fall enrollment) and November 1 (for spring enrollment), or 30 days after acceptance, whichever is later.

Freshman Admission: The Admissions Committee considers a variety of criteria when reviewing applications, evaluating the quality of academic preparation including depth and breadth of course work, academic achievement, and the results of the SAT or ACT. Because the college is committed to a liberal education for all undergraduates, preference is given to those applicants who have pursued strong academic programs in English, social studies, mathematics, science and foreign languages. Each applicant must forward the results of the SAT or ACT scores for review.

The Admissions Committee also reviews supporting credentials including special talents, activities, individual accomplishments, and recommendations, which the applicant may choose to submit. Students seeking admission in music must schedule a music audition. Results of the audition will be evaluated as part of the admission process. Art applicants must present a portfolio (or slides) for review.

Transfer Admission: The College at Fredonia is pleased to consider applications from students in good standing at both two- and four-year colleges and universities. Admission is based upon an evaluation of academic achievement, program of study, potential for collegiate success, and the departmental major requested. There are special audition requirements for music applicants and art students must forward a portfolio for review. Some academic programs require at least a 2.50 grade point average for admission.

An official transcript must be submitted for each college previously attended, and a high school transcript and SAT or ACT results will be requested from students who will have completed less than 30 credit hours at the time of application.

When evaluating transfer credit, the Office of Admissions, in accordance with academic policy, determines which courses will transfer and those which will complete general education requirements. An estimate of transfer credit hours is included in the acceptance letter. A maximum of 75 transfer credits may be awarded. Distribution of specific courses in fulfillment of departmental requirements in a chosen field of study is determined by the department chairperson or academic advisor. An official evaluation of transfer credit occurs when a final transcript is received by the Office of Admissions prior to enrollment showing all course work completed.

The college awards transfer credit for academic courses successfully completed at a fully-accredited college or university, reserving the right to determine what constitutes academic credit. The grade point average earned at another college does not transfer; only credit hours are awarded. All college and departmental requirements for the baccalaureate degree must be fulfilled prior to graduation, including completion of 45 semester hours of credit at Fredonia. Transfer students are encouraged to visit the campus to discuss transfer credit and graduation requirements with an academic advisor.

SUNY Two-Year Transfer Applicants

The College at Fredonia is committed to providing an opportunity for further study to SUNY two-year college graduates. Articulation agreements have been established with many two-year schools. For further information, contact the Office of Admissions at Fredonia.

Associate in Arts and Associate in Science degree candidates completing a parallel program of study are guaranteed a minimum of 60 semester hours of transfer credit and junior standing. Admission to a departmental major is dependent upon an evaluation of academic performance, and the academic program the applicant has pursued.

Applications from *Associate in Applied Science* degree candidates and from students who are not candidates for an associate degree are considered based upon an evaluation of academic performance, program of study and the departmental major requested.

Special Admissions Programs

Full Opportunity Program: Through the Full Opportunity Program an effort is made to identify and recruit veterans, handicapped and minority students, as well as those who possess outstanding

talent in art, athletics, drama, and music. Applicants who have participated extensively in school and community affairs or have received strong personal recommendations also receive consideration. The Full Opportunity Program provides eligible applicants a chance to enhance academic credentials with individual talents and accomplishments. Through the advising process, students have access to support services designed to help them make a successful transition from high school to college.

Educational Development Program: Applicants who demonstrate the potential for completing a degree program, meet financial and academic guidelines and have historically experienced educational and economic-disadvantages may seek admission through the Educational Opportunity Program. Eligible candidates must be New York State residents and have earned a high school diploma or its equivalent.

To be considered "financially eligible," an applicant must meet the economic criteria established by the New York State Education Department. Check the current SUNY application for the updated economic criteria listed under Educational Opportunity Programs.

Applicants will be required to submit appropriate financial aid applications and verification of family income.

Applicants do not need to prove they meet the economic guidelines if they can show that:

- a. Their family receives payment through a New York State County Department of Social Services;
- b. They live with foster parents who do not provide support for college, and no monies are provided from their natural parents; or;
- c. They are a ward of the state or county.

To be considered "educationally eligible" means not meeting the college's usual admissions standards. However, a student must demonstrate a reasonable degree of academic potential, proper motivation, and a strong desire for a college education. Interested candidates apply by checking "yes" when answering the EOP question on the SUNY application. Transfer applicants may be considered only if they have previously been enrolled in similar EOP/HEOP/College Discovery/SEEK programs.

If a transfer applicant attended a college that does not have a EOP-type program, then a review will be conducted to see if the transfer applicant would have been deemed eligible for EOP at the time of his/her acceptance to the other college.

Please review the listing of the Educational Development Program support services on page 9 of this catalog.

Joint Admission: The College at Fredonia has implemented joint admission agreements with a selected number of two-year colleges, both public and private. Through the joint admission program students are admitted to Fredonia by the admissions office at the two-year college. Students must meet all requirements as stated in the joint admission agreements in order to continue with their studies at Fredonia. Information may be obtained through the Office of Admissions at Fredonia or the two-year college.

Time-Shortened Degree Program. Students enrolling at the college may select from a variety of individually determined and contracted time-shortened degree options. Because some academic programs at the college are incompatible with the time-shortened degree, counseling from an academic or admissions counselor is advisable. The following options are available:

1. *Early Admission.* Accelerated high school juniors who wish to enroll as college freshmen may apply for early admission. Applicants should have completed four units of study in college preparatory mathematics and sciences and a sequence in foreign languages with above-average achievement. A counselor's recommendation is required as well as above average scores on the SAT or ACT.

2.3-1-3 *Program.* High school juniors interested in beginning college in the senior year of high school may wish to explore this opportunity. 3-1 -3 stands for three years of high school, one year

cooperatively taught by an area high school and the College at Fredonia, and three years at the college. Applicants must present above-average test results on the SAT (PSAT) or ACT, and a B average in high school.

A counselor's recommendation is required. Students should submit the standard SUNY application indicating Curriculum Code 199. A personal interview will be required in order to develop an academic schedule for the senior year of study and to establish a contract for advanced standing credit.

Credit by Examination. The college welcomes the opportunity to allow a student to complete graduation requirements at an accelerated rate by submitting the results of proficiency examinations for credit evaluation. Up to 30 semester hours of advanced standing credit by examination may be earned through the following programs:

Advanced Placement. The results of Advanced Placement Examinations should be submitted to the Office of Admissions. Students who achieve a score of three, four, or five will receive credit and/or placement.

College-Level Examination Program. Students may submit the results of the General or Subject Examinations of the College-Level Examination Program (CLEP) for credit evaluation. CLEP General Examinations may be substituted for the General College Program requirements. Subject Examinations may substitute for specific course requirements. Candidates are required to receive approval from the Office of Admissions before scheduling an examination. Students must score at the fiftieth percentile in order to receive credit.

Military Service Experience. Credit for military service experience and education will be evaluated on an individual basis according to the guidelines established by the American Council on Education. Official transcripts and documents should be forwarded to the Office of Admissions.

International Students. Because of the growing importance of the international/intercultural dimension of education for all students, the College at Fredonia welcomes qualified students from other countries. Assistance is provided them in matters of orientation, housing, personal concerns, and immigration. American students, the faculty, and the larger community take special interest in students from abroad, whose contribution to campus life is recognized and valued.

Residents of foreign countries should initiate applications well in advance of the semester they plan to attend. Special application forms are required and may be obtained by writing to the Director of Admissions. Students whose native language is not English are required to submit the results of the Test of English as a Foreign Language (TOEFL) administered by the Educational Testing Service, Princeton, NJ, 08540. All academic records should be accompanied by certified translations if they are presented in a language other than English. Brief course descriptions of subjects successfully completed (and an explanation of the grading system) should be included with credentials. Students must also verify they have the financial resources to complete their studies at Fredonia.

Readmission

Students who have withdrawn from the college and wish to return may obtain an application for readmission from the Director of Admissions. Requests for readmission are reviewed by a committee consisting of the appropriate academic dean and department chairperson, the Dean of Students or designee, and the Director of Admissions. Students who have withdrawn in good standing are generally eligible for readmission if space is available in the requested major. Individuals who were required to withdraw for academic reasons are not eligible for consideration until one academic semester has elapsed. The Readmission Committee evaluates potential for academic success, work experience, and/or academic achievement at another college. Credits earned more than 10 years ago must be individually approved by the appropriate department.

Deferred Admission

Students accepted for admission to the State University of New York College at Fredonia will be permitted to defer admission up to one year before actually enrolling. Students accepted will have the opportunity to enter the college in any of three terms: fall, spring, and summer. This option may

appeal to students who are financially unable to pursue college studies immediately after high school or who are undecided about educational goals. The plan is available to both freshmen and transfer students and applies to all college academic programs. Students interested in pursuing this option should forward a written request to the Office of Admissions.

Non-Matriculated Study

Continuing Education. The college, through its continuing education program, makes educational opportunities available to working adults and nontraditional students who wish to explore college study on a part-time basis. Students seeking admission through the continuing education program may apply using a simplified application procedure. No college entrance examinations are required; however, applicants must submit a high school transcript or GED score report. Applications for admission are available in the Office of Admissions, 178 Central Avenue (Fenner House), or the Continuing Education office in LoGrasso Hall.

Qualified students are eligible to enroll in regular day or evening courses, including a number scheduled in the late afternoon and early evening. The continuing education program is especially appropriate for those who wish to pursue non-degree college studies on a part-time schedule - for personal growth, job advancement, or other reasons. Students will be assigned an academic advisor to assist with course selection.

In addition, the college will be offering continuing education programs in the form of seminars, workshops and symposia in four major categories: education, health care, human and social services, and business and industry.

The college awards a certificate to continuing education students who successfully complete 30 credit hours of course work. Students are encouraged to seek admission to a baccalaureate degree program at that time. Credit earned through continuing education course work will apply toward any degree program at the college.

A student with prior college experience who is seeking degree study on a full-time or part-time basis should pursue admission as a transfer applicant (see transfer admission section).

Visiting Student Program. Students presently enrolled at another college or university who wish to pursue academic study at the College at Fredonia for one or two semesters may apply for admission through the Visiting Student Program. Advantages of the program, in addition to expanding academic options, include getting to know other new students, faculty and geographic areas, as well as having an opportunity to see oneself, one's education, and future plans from a new perspective.

To qualify for the program, students must receive approval for a proposed academic program from an appropriate official at their present college. Applications are available from the Office of Admissions and are reviewed following the procedures for transfer applicants. Registration in specific courses is offered on a space-available basis.

EXPENSES AND FINANCIAL AID

This section presents an estimate of the cost of attending the College at Fredonia for one year. College charges (tuition, fees, room rent, board) are paid on a semester, basis, at one-half of the rates listed below. The semester charges must be paid on or before the registration date for each semester. Students will receive up-to-date information concerning charges and payment procedures several weeks prior to the registration date.

All charges are subject to change.

Estimated expenses per year for a full-time (12 or more credit hours) *undergraduate*:

Annual College Charges Applicable to all Students

*Tuition	
In-State	\$2,650
Out-of-State	\$6,550
College Fee	\$25
Student Activity Fee	\$120
Athletic Fee	\$54
Health Center Fee	\$85

Additional Charges for Residents in College Dormitories

Room Rent	\$2,350-3,750
Board (Food Service)	\$1,650-\$1,860

Estimated Additional Costs

Books and Supplies	\$600
Personal	\$1,000
Transportation	\$1,000

New students who have paid a \$50 Advance Admission Deposit should deduct this amount from the tuition charge for their initial semester at the College at Fredonia.

Part-Time Study

*In-State Tuition	\$105 per credit hr.
*Out-of-State Tuition	\$274 per credit hr.
College Fee	\$.85 per credit hr.
Activity Fee	\$4.00 per credit hr.
Athletic Fee	\$1.80 per credit hr.
Health Center Fee	\$2.85 per credit hr.

*State University policy requires that a student be a resident of New York State for one year prior to registration in order to qualify for in-state resident tuition charges. Contact the Office of Student Accounts for complete information governing residency requirements.

All rates and fees are subject to change.

College Fee

This is a uniform, mandatory charge for all students, established by the State University.

Student Activity Fee

This is a mandatory charge established by the Student Association of the college with the approval of the University Chancellor and the College President. Revenue from this fee is allocated by the Student Association for various activities, including social events, musical groups, athletic activities, theatrical productions, convocations, publication of the weekly student newspaper, operation of the student radio station, support of special interest associations, class activities, etc. Students are admitted to most events without additional charge. Students interning or student

teaching for the entire semester at a site outside a 30-mile radius from Fredonia may pay a reduced fee of \$5.

Athletic Fee

This is a mandatory fee assessed all undergraduate students to support college intercollegiate athletic teams.

Health Center Fee

This mandatory fee is used to enhance the delivery of health services to all students, and will supplement existing health care programs.

Student Group Health Insurance

All students taking 12 or more credit hours are advised to obtain the Student Health Insurance provided by the college unless covered by comparable insurance. The health insurance covers a major portion of hospitalization costs not provided under the student health program.

Room Rent

The standard rate when two persons are assigned to a room is \$1,175 per semester. If a single room is requested and if one is available, the cost is \$1,625 per semester. Premium single rooms where available, are \$1,875 per semester. Apartments, where available, are \$1,295 per semester. Inquiries as to charges and accommodations should be addressed to the Office of Residence Life, Gregory Hall.

Students who have paid the \$50 Advance Room Deposit should deduct this amount from their room rental charge upon payment of charges.

The rates indicated above are subject to change on a yearly basis. Please contact the Office of Residence Life for current charges.

Board (Food Service)

College policy requires all dormitory residents to subscribe to a food service meal plan unless they are seniors or are residents of Disney or Eisenhower on-campus apartments.

Seniors, for the purposes of FSA policy, are those students who have 90 or more credit hours at the start of the semester. Also, students who have participated more than six semesters in the college's food plans are considered seniors for the purpose of this policy.

FSA offers a wide variety of points and traditional meal plans to suit the needs of each student. The costs for meal plans are estimated per semester and are subject to change.

Meal plans for freshman and sophomores range from \$825 to \$925 per semester; for juniors from \$595 to \$925; and for commuters from \$225 to \$925. All meal plans are tax exempt, according to New York State Tax Law, providing students with a 7 percent savings. Therefore, no refunds or transfer of plans are allowed once the contract has been signed.

Specific information concerning pricing and descriptions of each plan may be obtained by contacting the FSA office in Gregory Hall or calling 673-3415. Consult the Meal Plan enrollment card for college policy and procedures.

Miscellaneous Fees, Fines or Deposits

All of the major college expenses have been outlined. However, the State University authorizes charges for such items as parking registration, parking fee, returned checks, late registration, late payment, orientation and drop/add fees. Fines are authorized for parking violations and the late return or loss of library materials, failure to return physical education or infirmity equipment, and breakage deposits in some laboratory courses. All fees are subject to change.

State University Refund Policies

The *Advance Admission Deposit* of \$50 is refundable until April 30 (November 1 for spring enrollment) or 30 days after the day of acceptance, whichever is later. After this it may not be

refunded except in case of withdrawal for reasons beyond the control of the student and with approval of the College President or his/her designee.

The *Advance Room Deposit* of \$50 is refundable until July 1 (December 1 for spring enrollment). Refunds may not be made after this date except in cases of withdrawal for reasons beyond the control of the student and with approval of the College President or his/her designee.

Tuition. A student withdrawing during the semester is eligible for the following tuition refunds:
100% for withdrawal during the first week of classes
70% for withdrawal during the second week of classes
50% for withdrawal during the third week of classes
30% for withdrawal during the fourth week of classes
0% for withdrawal beyond the fourth week of classes

A full refund of tuition may be granted if a student must withdraw for reasons beyond his/her control with the approval of the College President or his/her designee.

The *College Fee and Health Center Fee* are not refundable after registration.

The *Student Activity Fee.* Refunds are granted based on the week of withdrawal following the same schedule listed above for tuition.

The *Athletic Fee.* Refunds are granted based on the week of withdrawal following the same schedule listed above for tuition.

Residence Hall Room Rental. Once a student has registered for and occupied a room in a college-operated residence, no refund may be made for the first half of the semester except in cases of withdrawal for reasons beyond the control of the student and with approval of the College President or his/her designee. Refund of the rent for the second half of the semester may be made if a student withdraws from college prior to mid-semester. Rooms are contracted for the full semester and refunds will not be made to those who wish to withdraw from college housing.

Food Service is refundable on a pro-rated basis, less a small service charge only upon withdrawal from college.

BILLING PROCEDURES AND PAYMENT REQUIREMENTS

Billing Procedures:

Students who have course selected prior to the start of a semester will receive a bill from the college approximately five weeks prior to the start of the semester. To retain the pre-selected courses, a student must send in the required payment prior to the mail registration deadline date. Failure to make payment by the deadline date will:

1. Result in the loss of all assigned courses, and,
2. Require the student to attend In-Person Registration to re-select courses. Any courses lost due to failure to make timely payment could be unavailable for selection at the time of In Person Registration.

Students are billed for each semester individually. The college bill lists the following mandatory charges: Tuition, College Fee, Student Activity Fee, Athletic Fee, and Health Center Fee. Optional charges for Dormitory Room Rental, Dormitory Damage Deposit and Food Service may also be included on the bill. A deduction from the total billed amount is made for the Advance Admission Deposit (\$50) and Advance Housing Deposit (\$50) when applicable. Deferments are granted only for authorized deferrable financial aid.

Deferment Policy:

Deferment of college charges is not permitted except for approved, deferrable financial aid. Estimated financial aid awards may not be used as deferments, Financial aid awards which may be used as deferments against college charges include:

Tuition Assistance Program (TAP Awards)
Stafford Student Loans

Veterans' benefits
PELL Awards
Supplemental Education Opportunity Grants (SEOG)
Perkins Loan
Aid for Part-Time Study (APTS)
Private Scholarships (only when they are payable directly to the college)
Academic Management Services (AMS)
Liberty Scholarships (if funded)

College Work Study Awards, Personal loans and Parent Loans for Undergraduate Students (PLUS) are not deferrable against college charges.

Payment Requirements and Distribution of Financial Aid:

Full payment, less approved deferrable financial aid and pre-payments, must be made in order to complete either Mail or In-Person Registration. Cash, personal checks, money orders, VISA and Mastercard are all acceptable forms of payments. Registrations lacking the required payment cannot be processed.

No financial aid is distributed until the end of the first week of the semester when students' registration status is verified. The majority of financial aid is distributed during the second and third week of classes. Tuition Assistance Program (TAP) funds are not distributed until after mid-semester. Students who file for their financial aid late will receive their aid later in the semester.

All financial aid received by the college is applied to student accounts on a first received, first applied basis after allowing for a pending Tuition Assistance Program (TAP) Award. Excess financial aid is generally returned to students the next business day (may be somewhat later at the beginning of the semester). Checks which are not picked up in the college Office of Student Accounts are mailed to home addresses.

Failure to Pay College Charges:

All college charges, less approved financial aid, are due at registration; however, changes in a student's registration status, dormitory residency, food service selection or a reduction in financial aid may create a balance due. This balance should be paid promptly. The college Bursar's Office bills students monthly during the semester. Students who fail to make timely payments may be assessed a \$30 Late Payment Charge each time their account is billed.

A student who fails to pay any college related charges (this includes tuition, fees, library and parking fines and expenses for equipment and supplies) prior to the end of the current semester will be placed on the college "hold" list. A student whose name appears on the "hold" list will not: receive grades at the end of a semester, receive their diploma at graduation, be permitted to register for additional semesters at the College at Fredonia or receive a copy of their college transcripts.

A student who fails to make payment to the college at the end of the semester will be referred to the New York State Attorney General's Office, in Albany for further legal action.

FINANCIAL AID

The primary objective of college financial aid is to furnish students with adequate resources to meet college expenses.

How Do I Apply?

In order to receive financial aid you must:

Submit a Free Application for Federal Student Aid (FAFSA) for federal assistance and a New York State Tuition Assistance Program (TAP) application form for state assistance.

Where Do I Get These Applications?

They are both available from any high school guidance office or any Financial Aid office.

It is the student's responsibility to submit the FAFSA and the TAP application each year. Financial aid awarded for the freshman year or any other year does not guarantee aid for subsequent years.

When Do I Apply?

Early application is Strongly encouraged. Applications cannot be submitted before Jan. 1, but you should be applying in January and February if at all possible. Since funds are limited, early applications are given first consideration.

When Will I Hear About My Financial Aid?

1. Starting in March, prospective students will receive a Financial Aid Award Letter that will list all federal, state, and insitutional aid that the applicant is possibly eligible to receive.
2. These awards will be estimates, and will provide each applicant with an idea of the semesterly awards from each federal and state aid program.
3. To change these estimated awards to an actual award, applicants may be required to go through a process called Verification. Federal tax returns of the 'student and the parents must be submitted, if requested, to verify the accuracy of the data submitted on the original financial aid applications.
4. Through the summer the Financial Aid office processes student aid paperwork such as loan applications and Student Aid Reports starting in May with the intention of making aid actual for payment on the college bill by mid-July.

Students *must* submit paperwork on *atimely* (as early as possible) basis.

How is Aid Awarded?

Applicants for aid are considered based on all of the following criteria:

1. Funds available to the college from govern-mental sources.
2. Financial eligibility as determined by the FAFSA.
3. Date of receipt of a FAFSA.

Verification

Many financial aid applicants must now go through a process whereby data reported on the FAFSA will be verified for accuracy. The process, called Verification, is mandated by the U.S. Department of Education and is performed by the college Financial Aid office. Randomly selected financial aid applicants will receive a Verification Form which will explain the requirements in detail.

College Costs

	N.Y.S Resident	Out-of-State Resident
Tuition and Fees	\$2,934	\$6,834
Room and Food	<u>\$4,200</u>	<u>\$4,200</u>
	\$7,134	\$11,034

Although every effort is made to keep college cost as low as possible, the cost can Change during the year. The above figures are subject to change.

Good Academic Progress and Financial Aid

Federal Regulations require that students must be in good academic standing* to continue to receive financial aid (Federal Register Oct. 6, 1984). Three criteria are used to measure your academic standing: (1) Year in college; (2) Cumulative credits earned; and (3) Cumulative QPA.

At the end of each academic year (May) your academic standing will be reviewed against the standards outlined below. If your cumulative credit hours earned or cumulative QPA fall below these standards, you will lose financial aid eligibility for the next semester only. If you withdraw from a course it may affect your aid for the next semester.

Before being certified for <u>this payment</u>	2	3	4	5	6	7	8	9*	10*
--	---	---	---	---	---	---	---	----	-----

A student must complete at least this many credit hours in this semester:	6	9	9	12	12	12	12	12	12
And must have accrued at least this many total credit hours:	3	9	18	30	45	60	75	90	105
And have accrued a Cumulative QOA of at least:	1.01	1.00	1.60	1.60	1.80	1.80	1.90	1.90	2.0

*These standards relating to academic progress and financial aid are not necessarily the same as "Good Academic Standing" as it relates to probation. See page 183.

**These payments apply to federal aid only.

TYPES OF AID

Scholarships

For information on scholarships available to students, refer to page 14 in the Academic Honors section.

Federal PELL Grant Program

A student may apply for a Federal PELL Grant if enrolled or accepted for enrollment for at least 3 credit hours as a citizen or permanent resident of the United States.

The college will notify the student of the amount of the Federal PELL Grant as well as develop the remainder of a financial aid package, which may include awards through such programs as Federal SEOG, Federal Work Study, Federal Perkins and Federal Stafford Loans (see p. 40).

The maximum grant which may be awarded is \$2,300. Grant checks are issued by the college Office of Student Accounts beginning four weeks after registration is completed.

Federal Work Study Program

Part-time jobs are awarded under this program to students who demonstrate eligibility. In arranging a job and determining how many hours a week a student may work under this program, the financial aid officer takes into account: (1) total financial need, and (2) date of receipt of a complete financial aid application. In general, students work for eight hours per week and receive a salary of \$4.25 per hour. A variety of jobs are available, such as: receptionist, clerk-typist, and student library assistant. Students are paid every two weeks and can use the funds for personal expenses.

Federal Perkins Loan

On July 23, 1992 the Reauthorization of the Higher Education Act was signed into law, putting into effect the following information:

- Interest Rate*
All loans made after 10/1/80 continue to be assessed at a 5 percent interest rate.
- Loan Limits*
Annual loan limits are established at \$3,000 for undergraduates and \$5,000 for graduate students. In actual practice, the amount varies according to need, dependency status, date of receipt of a complete Financial Aid Application and generally does not exceed \$1,000 per year.
- Repayment Conditions'*
Repayment of loans begins nine months after a student graduates, leaves school, or drops below half-time student status. Repayment is made to the Student Loan Service Center in Albany, N.Y. on a monthly or quarterly basis.
- Cancellation and Deferment Provisions*

For loans made on or after July 23, 1992, part or all of the loans may be canceled for full-time service as:

- *special education teacher
- *teachers of mathematics, science, foreign languages, bilingual education
- *employees of public or private non-profit child or family service
- *agencies providing services to high-risk children from low income communities
- *nurse or medical technician

Effective for loans disbursed on or after July 1, 1993, loan payments may be deferred while the borrower is:

- *enrolled on at least a half-time basis in an approved college, university, or post secondary institution
- *for up to three years during which the borrower is seeking and unable to find full-time employment
- *for up to three years for economic hardship engaged in service described under the cancellation provisions

Federal Supplemental Educational Opportunity Grant (SEOG)

This grant has traditionally been for freshmen undergraduate Educational Opportunity Program students with financial need.

A SEOG usually is not less than \$200 nor more than \$800 a year.

Federal Stafford Loan Program

Reauthorization of the Higher Education Act signed into law on July 23, 1992 revised the education loan programs in many ways. The Federal Stafford Student Loan Program consists of the *Subsidized Stafford Loan* and the *Unsubsidized Stafford Loan*. Applicants for either program first complete the Free Application for Federal Student Aid (FAFSA). A student must be in attendance or accepted as at least a half-time student (6 credit hours per semester) and must either be a U.S. citizen or permanent resident of the U.S. Following completion of the FAFSA, the student must complete a loan application and submit it to the Financial Aid Office for certification of enrollment status, cost of education, other financial aid, expected family contribution (where applicable) and determination of loan amount according to Federal Regulations. The primary differences between the Subsidized and Unsubsidized Stafford Loans:

Subsidized - Interest is paid by the federal government during in-school, grace, and deferment periods and is based on need.

Unsubsidized - Interest is paid by the student during in-school, grace, and deferment periods and can be used to replace expected family contribution.

The subsidized and unsubsidized Stafford Loans are similar in the following ways:

Variable Interest Rate - Treasury Bill plus 3.1 percent with 9 percent cap for new borrowers after 10/1/92

Fixed Interest Rate - 8 percent up to fifth year of repayment then switching to 10 percent at the start of the fifth year of repayment for borrowers prior to 10/1/92.

Repayment on principal begins six months after enrollment on at least a half-time basis ends.

Annual Maximums for Subsidized and Unsubsidized Staffords Combined:

- \$2,625 for Freshmen
- \$3,500 for Sophomores
- \$5,500 for Juniors
- \$5,500 for Seniors
- \$8,500 for Graduate

Aggregate Limits:

- \$23,000 for undergraduate study
- \$65,000 for undergraduate and graduate combined

Check Disbursement - Loan approvals are sent in two separate disbursements by the lender to the college and are made co-payable to the college and to the student according to federal regulation.

The first disbursement normally arrives at the Office of Student Accounts 30 to 45 days after the application leaves the Financial Aid Office. The second disbursement is made at the midpoint of the loan period (for the majority of students this is in time for spring semester).

Federal Parents Loan

For loans disbursed after July 1, 1993 parents of a dependent student will be able to borrow on a yearly basis up to cost of education minus other financial aid. A credit check is also required on loans with first disbursements after July 1, 1993. Five percent origination fees are imposed on Parent Loans and checks are made co-payable to the school and the borrower. New and refinanced loans will have a variable interest rate set annually at 3.10 percent above the T-bill rate, with a 10 percent cap. Loan applications are obtained directly at a student's parents' bank. The completed loan application should be submitted to the Financial Aid office for processing.

Federal Consolidation Loan Program

Student borrowers who are in repayment or in their grace period and have an outstanding indebtedness of at least \$7,500 are eligible for loan consolidation. Any consolidation loan made will be counted against a borrower's limitations for aggregate indebtedness under the Stafford Student Loan Program. In determining a borrower's outstanding indebtedness for the \$7,500 minimum, eligible student loans include Stafford, SLS, and Perkins. Consolidation loans will bear interest at an annual rate which is equal to the *weighted* average of the interest rates on the consolidated loans, rounded up to the nearest whole percent, but not less than 9 percent. Depending on the amount of the consolidated loan, the repayment period will range from 12 to 30 years. The repayment terms established by the lender may include graduated or income sensitive repayment schedules. If the sum of the consolidation loan *and* amount outstanding on the other student loans **is:**

equal to or greater than \$7,500, *but* less than \$10,000, that loan shall be repaid in *not more than 12 years*.

equal to or greater than \$10,000 but less than \$20,000, shall be repaid in *not more than 15 years*.

equal to or greater than \$20,000, but less than \$40,000, shall be repaid in *not more than 20 years*.

equal to or greater than \$40,000, but less than \$60,000, shall be repaid in *not more than 25 years*.

equal to or greater than \$60,000, shall be repaid in not more than 30 years.

Contact your bank or lender for further information and applications.

Federal Supplemental Loans For Students

This loan is for graduate students and independent undergraduate students. It is designed to supplement the expected family contribution and is computed by subtracting any actual or estimated financial aid from the cost of education. The application is obtained by the student from the lending institution and is submitted to the Financial Aid office for processing. Checks have a 5 percent origination fee deducted by the lender according to federal regulation and checks are disbursed in two separate disbursements similar to the Federal Stafford Loan Program. New and refinanced loans will have a variable interest rate set annually at 3.20 percent above the T-bill rate with an 11 percent cap. As with all other loan applications, early application is a must. The maximum loan that can be requested is \$4,000 per year during the first two years of attendance, \$5,000 per year during junior and senior years, and \$10,000 per graduate year.

Tuition Assistance Program

Students may apply for TAP if they have been legal residents of New York State for one year, are citizens or permanent residents of the United States, and are enrolled or accepted for enrollment full-time in a degree program at an approved institution in New York State. Application is made by completing the TAP Application.

Within eight weeks of application, the student should receive an award certificate, stating how much money he/she will receive for each semester.

Undergraduate and graduate students can receive TAP for eight semesters (per degree). Depending on the family's net taxable income, students may be eligible to receive grants ranging from \$50 per semester to full tuition.

Aid For Part-time Study

Funds to help pay tuition costs are only available in this program to undergraduate students enrolled on a part-time basis. Applications are available in the

Financial Aid Office. To be eligible a student must:

- be a legal resident of New York State
- be a U.S. citizen or permanent resident
- enroll for at least 3 but less than 12 credit hours
- meet the income limits established by the APTS program

Regents Award For Children Of Deceased Or Disabled Veterans

Application Procedures: A special application, obtainable from the high school principal or counselor, must be filed with the New York State Higher Education Services Corp. (HESC), Albany, NY 12255. Documentary evidence to establish eligibility is required with the application. A high school counselor can provide assistance with this.

Selection of Recipients and Allocation of Awards: The applicant must be: (1) the child of a veteran who died, or who has a current disability of 50 percent or more, or who had such disability at the time of death, or are either a prisoner of war or missing in action, resulting from U.S. military service during one of the following periods:

Dec. 7, 1941 - Dec. 31, 1946

June 27, 1950 - Jan. 31, 1955

Oct. 1, 1961 - May 7, 1975

and: (2) a legal resident of New York State. Legal residence in New York State on the part of the parent is also required: at the time of entry into military service, or, if the parent died as a result of military service, at the time of death.

Regents awards to children of deceased or disabled veterans are independent of family income or tuition charge, and are in addition to such other grants or awards to which the applicant may be entitled.

Award Schedule: The amount of the award is \$450 per year, for up to five years, depending on the normal length of the program of study, of full-time study in a college or hospital nursing school in New York State.

Responsibilities of Recipients: Recipients must be in good academic standing as in accordance with Commissioner's Regulations, and must not be default of a loan guaranteed by the Higher Education Services Corp. To receive payment, the scholarship holder must, each year, file a Free Application for Federal Student Aid and a special Supplement Application with the New York State Higher Education Services Corp.

State Aid To Native Americans

Application Procedures: Application forms may be obtained from the Native American Education Unit, New York State Education Department, Albany, NY 12230. The completed application form should be forwarded by the applicant to the Native American Educational Unit on or before Aug. 1 for the fall semester, Dec. 31 for the spring semester, and May 15 for the summer session, of the academic year of proposed enrollment, along with the following materials:

- (1) official transcript of high school record or photostat of General Equivalency Diploma;
- (2) letter(s) of recommendation from one or more leaders in the community attesting to personality and character;
- (3) personal letter, setting forth clearly and in detail educational plans and desires;
- (4) signatures of the parents of minor applicants, approving educational plans;
- (5) official tribal certification form; and

(6) copy of acceptance letter from college attending.

Selection of Recipients and Allocation of Awards: The applicant must be:

- (1) on an official tribal roll of a New York State tribe or the child of an enrolled member of a New York State tribe, and a resident of New York State;
- (2) maintaining good academic standing in accordance with Commissioner's Regulations; and (3) enrolled in an approved New York State post-secondary program.

Student Aid to Native Americans is an entitlement program. There is neither a qualifying examination nor a limited number of awards.

Award Schedule: Up to \$1,350 may be awarded yearly for half-time or full-time study in the state. **Responsibilities of Recipients:** Students are responsible for notifying the Native American Education Unit in writing of any change in student status or program or institutional enrollment. Students must also submit semester grades, at the end of each semester, showing satisfactory progress toward completion of degree or certification requirements.

United States Bureau of Indian Affairs Aid To Native Americans Higher Education Assistance Program

Application Procedures: Application forms may be obtained from the Bureau of Indian Affairs Office. An application is necessary for each year of study. An official needs analysis from the college Financial Aid Office is also required each year.

Each first-time applicant must obtain tribal enrollment certification from the bureau agency which records enrollment for the tribe.

Selection of Recipients and Allocation of Awards: To be eligible, the applicant must:

- (1) be-at least one-fourth American Indian, Eskimo or Aleut;
- (2) be an enrolled member of a tribe, band or group recognized by the Bureau of Indian Affairs;
- (3) be enrolled in or accepted for enrollment in an approved college or university; pursuing at least a two-year degree; and
- (4) have financial need.

Responsibilities of Recipients: For grants to be awarded in successive years, the student must make satisfactory progress toward a degree, and show financial need. Depending on availability of funds, grants may also be made to graduate students and summer session students. Eligible married students may also receive living expenses for dependents.

Veterans Administration Educational Benefits

Those veterans or dependents who are, or feel they are, eligible for federal financial assistance through the Veterans Administration should contact the coordinator, Veterans' Affairs (3176 Mason Hall, 716 673-3423) or complete appropriate forms. Students are urged to begin their VA paper work before the beginning of the school term in order to hasten processing. To further facilitate the start of benefits, the veteran, or children, spouses, and survivors of veterans whose deaths or permanent total disabilities were service-connected should present pertinent data, such as the service number, social security number, VA claim number, dates of service, discharge papers, and any other VA claim information.

The Veterans' Affairs Office is staffed by the coordinator and a veteran work-study student and provides routine certification of enrollments. The staff also monitors student progress, and is available for information and referral for problems which might arise. Policy among various administrative offices, as it relates to VA recipients, is also coordinated through the Veterans' Affairs Office. The coordinator is in liaison with the regional office in Buffalo for those situations which might need special attention.

For additional information about any aspect of expenses or financial aid, write: Director of Financial Aid, 215 Maytum Hall, State University of New York College at Fredonia, Fredonia, NY 14063.

UNDERGRADUATE STUDIES

This section lists the undergraduate courses, many offered each semester, some in alternate semesters, and a few either in alternate years or in summer sessions. Check the *Course Offerings Bulletin* available during the pre-registration period each semester for an accurate list of proposed offerings.

Course outlines, including general requirements, format of courses, and grading procedures, are available in department offices.

While the college guarantees each accepted student a full schedule of courses each semester pertinent to his/her academic objectives and in partial fulfillment of degree requirements, it cannot assure a desired time schedule, a preferred instructor, or a given course.

To the right of each course name will be a letter indicating how often the particular course is offered. The key to course frequency codes is as follows:

- A - Course offered every semester
- B - Course offered every year
- C - Course offered every other year
- D - Course offered on occasion

ACCOUNTING

Office: W301 Thompson Hall

Mojtaba Seyedian, *Acting Chairperson*

John Bankosh, *Accounting Coordinator*

The mission of the accounting program is to provide students with a rigorous, up-to-date curriculum that prepares them for imaginative and responsible leadership roles in accounting - domestic and worldwide. While the program is career-Oriented, the department realizes that contemporary accounting professionals must bring a broad and varied perspective to their practice. Accordingly, the program requires that prospective graduates take half of the 120 hours needed for a degree outside the department, with particular emphasis given to the development of written and oral communicative skills and the acquisition of the ability to think creatively and critically.

Students are urged to declare a major in accounting as early as possible in their college careers. Students who wish to declare this major after they have earned 90 credit hours will need the permission of the department chairperson and the Dean of the Faculty of Arts and Sciences.

The accounting program offers the degree, B.S. in Accounting, which qualifies graduates to take the Certified Public Accounting (CPA) examination. The program is administered by the Department of Business Administration, and accounting majors are eligible for all awards, honors and programs sponsored by the department (see page 56 for more information).

Career Options

There are three major sources of employment for graduate accountants: public accounting, management accounting, and governmental accounting. Public accounting firms provide clients with a wide variety of services, including auditing, tax consulting, and management advisory services. Management accountants are employed by companies in various areas, such as cost accounting, budgeting, general ledger accounting, and internal auditing. Governmental accountants, employed by the federal, state, and local governments, have the responsibility to monitor the use of the taxpayer's money. In the federal government, the major sources of employment for accountants include the Internal Revenue Service, General Accounting Office, and Defense Contract Audit Agency.

Student Clubs and Activities

Students majoring in accounting can participate in a number of clubs or activities that are designed to supplement classroom work. The student clubs include the Business Club, the Investment Club, a collegiate chapter of the American Marketing Association, and the Accounting Society. The Accounting Society engages in many activities, including meetings with accountants from industry, government, and public practice. The society also conducts the Volunteer Income Tax Assistance program, a service provided under the auspices of the IRS, by which student volunteers help to prepare individual personal income tax returns for low-income and elderly persons. The accounting program also has a number of standing internships with various local firms and organizations.

Requirements for the B.S. Degree in Accounting

1. To earn a B.S. degree in accounting a student must complete 60 semester hours in accounting and business administration courses, plus 60 semester hours in liberal arts and science courses, as directed by the State Board for Public Accountancy. As a N.Y. State registered program, these 120 semester hours (excluding any health/physical education courses) will qualify students to sit for the CPA Examination and satisfy the education requirement for licensure as a CPA in the State of New York.
2. Accounting majors must complete the following 60 semester hours in accounting and business administration courses.

			Hrs.
AC	201	Principles of Accounting I	3
AC	202	Principles of Accounting ii	3
AC	301	Intermediate Accounting I	3
AC	302	Intermediate Accounting ii	3
AC	303	Cost Accounting	3

AC 304	Taxation I	3
AC 311	Business Law I	3
AC 312	Business Law II-	3
AC 401	Advanced Accounting	3
AC 405	Auditing	3
AC 407	Acctg. Information Systems	3
BA 200	Fundamentals of Statistics	3
BA 315	Principles of Finance	3
BA 321	Management & Org. Behavior	3
BA 325	Principles of Marketing	3
BA 417	Financial Management	3
BA 423	Business Policy	3
BA 476	International Business	3
Elective in accounting (excluding CPA Seminar, independent Study, and Internships)		3
Elective in accounting or business administration. May include CPA Seminar but not BA 101. (see Section 4 below)		3
Total accounting and business administration		60

3. Students majoring in accounting must complete the following 60 semester hours in liberal arts and science courses:

CS 104	Into. to Microcomputers (<i>preferred</i>)	3
	or	
CS 105	Introduction to Computing	3
EC 201	Principles of Macroeconomics	3
EC 202	Principles of Microeconomics	3
MA 120	Survey of Calculus II	3
Electives in liberal arts and sciences (see Section 4 below)		48
Total liberal arts and sciences		60

4. Accounting majors must complete the following course, which may be counted ~~as~~ either part of the 3 elective hours of business administration courses ~~or~~ part of the 48 elective hours of liberal arts and science courses:

EC 300	Statistics for Econ. & Bus	3
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5. Accounting majors must obtain a minimum cumulative quality point average of 2.00 in all accounting (AC prefix) courses. This requirement is in addition to the college requirements of 2.00 overall and 2.00 in courses required for the major.

6. Accounting majors must complete a minimum of 30 credit hours of upper-level business administration and/or accounting courses taken at the College at Fredonia.

AC 201. Principles of Accounting I

A

A study of the nature and purpose of accounting in modern business organizations with emphasis on business income and financial position measurement. The completion of a manual practice set is required in this course. *Prerequisite* Sophomore standing. 3 hours credit

AC 202. Principles of Accounting II

A

A continuation of the study of the nature and purpose of accounting in modern business organizations with emphasis on valuation of equity, and planning and control through accounting systems. The completion of a computerized practice set is required in this course. *Prerequisite* AC 201. 3 hours credit

AC 301. Intermediate Accounting I

A

A rigorous study of the theory and application of generally accepted accounting principles. Topics include the standard setting process; the conceptual framework; the accounting process; income statement presentation; classified balance sheets; revenue recognition; time value of money; and the valuation, presentation, and disclosure requirements of cash, receivables, inventory, plant assets, natural resources, and intangible assets. *Prerequisite* AC 202. 3 hours credit

AC 302. Intermediate Accounting II **A**

A continuation of the study of the theory and application of generally accepted accounting principles. Topics considered generally include valuation of stockholders' equity, calculation and presentation of earnings per share, alternative methods of revenue recognition, deferred taxes, pensions, leases, and accounting changes. *Prerequisite* AC 301. 3 hours credit

AC 303. Cost Accounting **B**

A study of the concepts and techniques of management and cost accounting including accumulation, classification, distribution, and control of costs; job order and process cost systems; variance analysis and interpretation; standard costs and budgeting and profit planning. LOTUS 1-2-3 templates are used in solving applications problems. *Prerequisite* AC 202. 3 hours credit

AC 304. Taxation I **B**

An analysis of taxation problems of individuals. Topics considered include realization and recognition of income and deductions, exemptions and amortization, and capital distributions. *Prerequisite* AC 202. 3 hours credit

AC 305. Taxation H **C**

A study of advanced principles and practices of taxation, including taxation of corporations, partnerships, and S corporations. *Prerequisite* AC 304. 3 hours credit

AC 311. Business Law I **B**

A general study of the functions and procedures of law and detailed analysis of contracts and Uniform Commercial Code. Provides a student with the first half of a business law sequence designed to furnish accounting students with the required course hours and material to sit for CPA Examination. Provides an in-depth knowledge of practical business law. *Prerequisite* Junior standing 3 hours credit

AC 312. Business Law II **B**

A continuation of the study of Uniform Commercial Code together with the study of creditor's rights, agency and employment, business organization, and property. *Prerequisite* AC 312. 3 hours credit

AC 401. Advanced Accounting **B**

An in-depth examination of the following topics: accounting for partnerships, joint ventures, installment sales, consignments, home and branch office operations, business combinations including consolidations, segment reporting, interim statements, and multi-national companies. *Prerequisite* AC 301. 3 hours credit

AC 402. Governmental Accounting **C**

Study of accounting for governmental entities including budgets, general funds, capital project funds, debt service funds, trust and agency funds, fixed assets, capital expenditures, property tax accounting, and interfund relationships. Also includes accounting standards for voluntary health and welfare organizations, colleges, hospitals, and other types of not-for-profit organizations. *prerequisite* AC 301, or permission of instructor. 3 hours credit

AC 405. Auditing **B**

A study of the standards, procedures, strategies, and reporting used in the financial audit process. The environment in which the auditor functions is considered, including regulatory requirements, professional ethics, legal liability, and the business entity. The completion of a computerized audit case is required in this course. *Prerequisite* AC 302. 3 hours credit

AC 407. Accounting Information **B**

Systems

A course for accounting majors comprised of an, introduction to AIS concepts, the documentation and control of information systems, a survey of AIS applications, and an introduction to systems analysis and design. The course also introduces students to electronic mail, MS-DOS and local area network operating systems, and various application packages, such as integrated accounting, spreadsheet, graphics, and database software.

prerequisite CS 104 (preferred) or CS 105, and AC 3013 *hours credit*

Note Credit will not be given for both AC 407 and BA 324.

AC 430. Independent Study**A**

A course for highly motivated students to undertake, under guidance, special studies of areas of accounting which are not normally covered in other courses. *Prerequisite* Permission of instructor. *1-3 hours credit*

AC 450-451. Senior Seminar**B**

Seminars dealing with contemporary problems in the field of accounting. The course is designed so that students may utilize what they have learned in previous accounting courses. These seminars also serve to introduce students to inter-disciplinary approaches in problem-solving and lead to possible areas of graduate or professional work. Topics will vary from semester to semester. *prerequisite* Senior standing or permission of, the department. *1-3 hours credit*

AC 480-481. Internship**A**

These courses provide credit to students for professional experiences which are closely related to their field of study. Enrollment is to be arranged with an appropriate instructor. *prerequisites* Junior standing and permission of instructor. *1-6 hours credit*

AGRICULTURE (COOPERATIVE)

Office: 118 Houghton Hall

Michael N. Grasso, *Director*

This cooperative program developed jointly by the College at Fredonia and the College of Agriculture and Life Sciences at Cornell is an innovative endeavor which provides agricultural employment opportunities following graduation by combining liberal arts and sciences with agriculture and life sciences. The following specializations, or career options are available under nine program areas:

1. AGRICULTURAL AND BIOLOGICAL ENGINEERING
 - Engineering Technology
 - Some areas of study*
 - General Machinery*
 - Material Processing & Handling*
 - Power: Electric & Internal Combustion Engines*
 - Soil & Water Management Structures & Environment*

2. ANIMAL SCIENCES
 - Animal Breeding and Genetics
 - Animal Nutrition
 - Animal Physiology
 - Dairy Cattle Production
 - Horse Production
 - Livestock Production
 - Meat Science
 - Poultry Production

3. APPLIED ECONOMICS AND BUSINESS MANAGEMENT
 - Agricultural Economics
 - Business Management and Marketing
 - Farm Business Management and Finance
 - Food Industry Management
 - Public Affairs Management
 - Resource Economics

4. BEHAVIORAL AND SOCIAL SCIENCES
 - Agricultural Education
 - Communication Arts
 - Education
 - Environmental Education
 - Human Services
 - Rural Sociology

5. BIOLOGICAL SCIENCES
 - Animal Physiology and Anatomy
 - Biochemistry
 - Botany
 - Ecology and Evolution
 - Genetics and Development
 - Neurobiology and Behavior

6. ENVIRONMENTAL STUDIES
 - Aquatic Science
 - Atmospheric Science
 - Entomology
 - Environmental Horticulture
 - Environmental Technology
 - Landscape Architecture

Natural Resources (environmental conservation,
fishery, forest, and wildlife sciences)
Soil Science

7. FOOD SCIENCE

General
Food Analysis
Food Technology and Management

8. PLANT SCIENCES

General
Field Crops
Floriculture and Ornamental
Horticulture
Plant Breeding
Plant Pathology
Plant Protection
Pomology
Vegetable Crops

9. GENERAL AND SPECIAL PROGRAMS

General Studies
International Agriculture
Microbiology
Statistics and Biometry

Under this cooperative arrangement, the most popular curriculum choice is the Three-Two (3-2) option by which a student majors in a modified curriculum in biology, business administration, chemistry, economics, English, foreign languages and literatures, geology, history, mathematics, philosophy, physics, political science, psychology, or sociology for the first three years and then transfers to the College of Agriculture and Life Sciences -at Cornell University for the next two years. When the student completes the five-year curriculum, he/she obtains a baccalaureate from the College of Agriculture and Life Sciences as well as a baccalaureate from the College at Fredonia, providing the student satisfies Fredonia's remaining requirements at the College of Agriculture and Life Sciences. The only other viable curricular choice is the 2-2 option by which a student transfers to the College of Agriculture and Life Sciences after remaining at the College at Fredonia for two years. Under the 2-2 option, the student receives a bachelor's degree only from Cornell after completing the four-year program.

It is possible for students who do not wish to major in one of the above departments to enter the College at Fredonia's Special Studies program which allows the student to design his/her own cooperative agriculture program.

The curriculum the student takes at the College at Fredonia will include the prerequisite course work for the specialization at the College of Agriculture and Life Sciences.

An attractive feature of the 3-2 option is that the final decision regarding the area of specialization usually is not made until the third year, thus providing the student with sufficient experience to make a proper choice. To transfer, the student first consults with the director and then applies to the College of Agriculture and Life Sciences. Usually a letter of recommendation from the director is forwarded for highly motivated students with satisfactory academic records (3.0 or higher). At Cornell an application from a College at Fredonia student in this program is given special consideration.

Since there are more than 50 specializations at the College of Agriculture and Life Sciences and since these curricula are frequently updated, it is mandatory that all students registered in Cooperative Agriculture meet with the coordinator or authorized designee for advisement each semester.

(American Studies, see Special Studies, pg. 160)

ART

Office: 237 Rockefeller Arts Center
 Robert A. Booth, Chairperson

The objective of the Department of Art is to provide a balanced, comprehensive undergraduate program in the practice, theory, and history of art. Acknowledging the pertinent need for a balanced curriculum that includes professional training in studio specialties and art history, the department offers both the art major and the elective student an opportunity to experience art as an important and contributing factor in a liberal arts education and to prepare for advanced study or career opportunities.

The Department of Art offers both the Bachelor of Arts and the Bachelor of Fine Arts degrees with concentrations in Studio Art and Graphic Design; and the B.A. degree with a concentration in Art History. Admission to the department in studio art or graphic design requires the submission of an acceptable portfolio for both freshman and transfer students.

In the practice of art, after completing the basic sequences of the core program, the student may choose a Studio Art concentration with an emphasis from the areas of ceramics, drawing, illustration, painting, photography, and sculpture, or a Graphic Design concentration. Students wanting to apply for the B, F.A. degree must do so after completing a minimum of 27 credits in the core program.

The Art History concentration offers a wide range of courses from ancient to modern art.

Studio Art Concentration

B.A. Degree (Core + 21 hours of Concentration Requirements)
 B.F.A. Degree (Core + 41 hours of Concentration Requirements)

Core Program:			36 Hrs.
AR	115	Masterpieces-Art to1400	3
AR	116	Masterpieces-Art from 1400	3
AR	150	Drawing I	3
AR	151	Drawing II	3
AR	155	2-D Design I	3
AR	252	Life Drawing I	3
AR	255	Photography I	3
AR	257	Sculpture I	3
AR	273	Ceramics I	3
AR	258	Sculpture II	3
		or	3
AR	274	Ceramics II	
AR	285	Painting I	3
		Art History Elective	3

B.A. Degree Concentration Requirements: 21 hours in one area (plus AR 120 Visiting Artists Program each semester)

Painting

AR	286	Painting II	3
AR	385	Painting III	3
AR	386	Painting IV	3
AR	495	Independent Studio Project	3
		Studio Electives	6
		Art History Elective	3

Photography

AR	256	Photography II	3
AR	355	Photography III	3

AR	356	Photography IV	3
AR	495	Independent Studio Project	3
		Studio Electives	6
		Art History Elective	3
		Sculpture	
AR	357	Sculpture III	3
AR	358	Sculpture IV	3
AR	441	Directed Studio Sculpture	3
AR	495	Independent Studio Project	3
		Studio Electives	6
		Art History Elective	3

Ceramics

AR	373	Ceramics III	3
AR	374	Ceramics IV	3
AR	441	Directed Studio Ceramics	3
AR	495	Independent Studio Project	3
		Studio Electives	6
		Art History Elective	3

Drawing

AR	350	Drawing III	3
AR	370	Drawing IV	3
AR	441	Directed Studio Project	3
AR	495	Independent Studio Project	3
		Studio Electives	6
		Art History Elective	3

Illustration (Concentration Requirements Under Development)

AR	380	Illustration I	3
AR	381	Illustration II	3
AR	420	Illustration III	3
AR	421	Illustration IV	3
		Studio Electives	6
		Art History Elective	3

B.F.A. Degree Concentration Requirements: 41 hours in one area

Painting

AR	286	Painting II	3
		Art History Elective	3
AR	385	Painting III	3
		Studio Electives	9
		Art History - Advised	3
AR	386	Painting IV	3
AR	441	Directed Studio Painting	3
AR	495	Independent Studio Painting	6
		Visiting Artists Program	8

Photography

AR	256	Photography II	3
AR	355	Photography III	3
		Art History (Independent Photography)	3
		Studio Electives	12
AR	350	Drawing III	3
AR	356	Photography IV	3
AR	441	Directed Studio Photography	3
		Art History - Advised	3
		Visiting Artists Program	8

Sculpture

AR	274	Ceramics II	3
		Art History Elective	3
AR	357	Sculpture III	3
		Studio Electives	12
AR	358	Sculpture IV	3
AR	441	Directed Studio Sculpture	3
AR	495	Independent Studio Sculpture	3
		Art History - Advised	3
		Visiting Artists Program	8

Ceramics

AR	258	Sculpture II	3
		Art History Elective	3
AR	373	Ceramics III	3
AR	441	Directed Studio Ceramics	3
AR	256	Photography II	3
AR	374	Ceramics IV	3
AR	495	Independent Studio Ceramics	3
		Art History - Advised	3
		Studio Elective	9
		Visiting Artists Program	8

Drawing

AR	263	Printmaking I	3
		Art History Elective	3
AR	253	Life Drawing II	3
AR	286	Painting II	3
AR	350	Drawing III	3
AR	370	Drawing IV	3
AR	380	Illustration I	3
AR	441	Directed Studio Drawing	3
AR	495	Independent Study	3
		Art History - Advised	3
		Studio Elective	3
		Visiting Artists Program	8

Illustration (Concentration Requirements Under Development)

AR	263	Printmaking	3
AR	350	Drawing III	3
AR	380	Illustration I	3
AR	253	Life Drawing II	3
AR	381	Illustration II	3
		Studio Elective	3
AR	420	Illustration III	3
AR	421	Illustration IV	3
		Production Course	3
		Studio Elective	3
		Art History - Advised	3
		Visiting Artists Program	8

Graphic Design Concentration

B.A. Degree (Core + 24 hours of Concentration Requirements)
plus Visiting Artists Program.

B.F.A. Degree (Core + 44 hours of Concentration Requirements)

Core Program:		33 Hrs.	
AR	115	Masterpieces-Art to 1400	3
AR	116	Masterpieces - Art from 1400	3
AR	150	Drawing I	3

AR 151	Drawing II	3
AR 155	2-D Design I,	3
AR 259	Graphic Design I	3
AR 255	Photography I	3
AR 257	Sculpture I	
	or	3
AR 273	Ceramics I	
AR 258	Sculpture I1	
	or	3
AR 274	Ceramics II	
AR 285	Painting I	3
	Art History Elective	3

B.A. Concentration Requirements:

15 credits from Graphic Design or Typography courses in sequence		15
Studio Electives		6
Art History Elective		3

B.F.A. Concentration Requirements:

AR 260	Graphic Design II	3
AR 359	Graphic Design III	3
AR 361	Typography I	3
AR 360	Graphic Design IV	3
AR 362	Typography II	3
AR 365	Production for Graphic Design	3
	Studio Elective	3
AR 401	Graphic Design V	3
AR 402	Graphic Design VI	3
AR 441	Directed Studio Graphic Design	3
	Art History - Advised	3
	Studio Elective	3
	Visiting Artists Program	8

Art History Concentration**B.A. Degree (36 hours):**

AR 100	Visual Concepts	3
AR 115	Masterpieces-Art to 1400	3
AR 116	Masterpieces - Art to 1400	3
	Art History Courses as Advised	21
	Selected Studio Courses	6

Recommended: 6 additional hours in studio or art history courses.

All art majors must enroll each semester in AR 120 Visiting Artists Program, a required departmental activity.

Students concentrating in studio art and design must present an acceptable exhibit of their art work during their senior year prepared under advisement of the art faculty, and a slide portfolio of completed work to remain in student's departmental file.

All graduating art majors must complete the last semester of the senior year enrolled at the College at Fredonia campus to provide adequate preparation for the required on-campus senior exhibit.

The art department reserves the right to retain student work for its permanent collection.

It is mandatory that all art majors meet with their art faculty advisor for program and/or career advising at least once per semester.

Additional standards and expectations of the department may be confirmed through the chairperson's office.

For Art History Minor 18 credit hours:

AR 115-116 (6 hours);

two courses selected from 200 level art history offerings (6 hours); one course from the 300 level (3 hours); and one course from the 400 level art history. (3 hours)..

For Art Studio Minor 21 credit hours:

AR 100 (3 hours);

two courses (6 hours) selected from the AR 150, 151, 155, and 156 basic Drawing and Design sequences, and four studio courses in sequence from any combination of studio specialties at the 200, 300, and 400 level (12 hours).

All courses should be selected with advising and approval of the art department.

Students interested in the visual arts have other alternatives available to them. Through the Bachelor of Arts in Special Studies (B.A.S.S.) degree program, students with special educational goals not fully served by traditional programs, may, with the aid of an academic advisor and the Dean of Liberal Studies, propose an alternative preparatory curriculum in the following career-oriented areas: arts administration, art therapy, medical illustration, and communications design. Some of these B.A.S.S. degree alternatives are already operational, others are in the process of being formulated.

The History and Theory of Art

AR 100. Visual Concepts

A

Introductory course on the theory and practice of art in a post-modern world. *3 hours credit*

AR 115. Masterpieces in Art to 1400

B

A concise survey of western art and architecture from prehistoric times to the end of the Middle Ages (c. 1400) with emphasis on the understanding and appreciation of key works of art, as well as their social and historical context. *3 hours credit*

AR 116. Masterpieces of Art from 1400 to Present

B

A concise survey of western art and architecture from the Italian Renaissance (c. 1400) to the present, with emphasis on the understanding and appreciation of key works of art, as well as their social and historical context. *3 hours credit*

AR 120. Visiting Artists Program

A

Required for all art studio and art history majors *each semester*. Art faculty, guest artists and designers, and speakers provide lectures, and lead critiques and panel discussions relating to contemporary problems. *1 hour credit*

AR 205. Great Masters of Art

B

A study of three masters, Picasso, Matisse and M. Duchamp, and their wide-ranging influence regarding the character of art in the modern world. *3 hours credit*

AR 215. Basic Readings in Art

B

Contemporary readings in the theory and practice of 20th century art. Special emphasis on the problematic motifs of postmodernism. *3 hours credit*

AR 220. Art of the Nineteenth Century

B

Painting, sculpture, and architecture in Europe and America. Special emphasis on development in French art. *3 hours credit*

AR 225. Ancient Art

D

The development of painting, sculpture and architecture in ancient Egypt, Mesopotamia, Greece and Rome, seen in their esthetic and cultural context. *3 hours credit*

AR 226. Medieval Art

D

Study and analysis of painting, sculpture, architecture, and the minor arts from early Christian to Gothic. 3 hours credit

AR 251. Art & Reality in Nineteenth Century America **D**

Painting and sculpture between 1820 and 1920 - when it evolved from objective realism to modernist abstraction - is explored in the context of changing artistic and cultural values. prerequisite 3 hours art history or permission of department. 1-3 hours credit

AR 321. Modern Art **B**

Continuation of AR 220 tracing painting and sculpture from post-impressionism to the present. 3 hours credit

AR 325. Art of the Italian Renaissance **D**

Evolution of Italian Renaissance art and architecture from the 14th century through the High Renaissance masters, including Mannerism. General trends as well as careers of major artists emphasized. *Prerequisite* 3 hours art history, or permission of department. 3 hours credit

AR 326. Art of the Northern Renaissance **D**

Development of painting and sculpture in Spain, England, and north of Europe, 15th-16th centuries. prerequisite 3 hours art history or permission of department. 3 hours credit

AR 327. Baroque Art **D**

Art and architecture of Baroque and Rococo Europe during the 17th and 18th centuries, with a focus on Italy, France, the Netherlands, and England. prerequisite 3 hours art history or permission of department. 3 hours credit

AR 340. History of Architecture **D**

A study of the evolution of form, style, structure and meaning in Western architecture from the Middle Ages through c. 1800. 3 hours credit

Pat 345. Colonial American Architecture **D**

A survey of American architecture between 1610 and 1800, focusing on major stylistic trends and architects in New England, the South, and the Southwest. European antecedents will also be explored. *Prerequisite* 3 hours art history or permission of department. 3 hours credit

AR 346. Nineteenth Century American Architecture **D**

The development of major stylistic movements, technological advances, and the careers of key architects between about 1800 and 1890, with a focus on the European sources and influences. Local versions of national styles will be featured. prerequisite 3 hours art history or permission of department. 3 hours credit

AR 347. Twentieth Century American Architecture **D**

Modernist and traditionalist themes in architecture of this century are explored, with the late 19th century as well as the European background. Technological developments, work of major architects, local variants of national styles will also be examined. prerequisite 3 hours art history or permission of department 3 hours credit

AR 35 1. Special Topics Art History **D**

Selected areas of history of art supplementing the regular program *Prerequisite* Permission of department. 1-3 hours credit

AR 435. Oriental Art **D**

The development of architecture, painting, sculpture, and decorative arts of the Far East in their cultural context, with major emphasis on India, China and Japan *Prerequisite* 3 hours art history or permission of department. 3 hours credit

AR 44 1. Directed Study Art History **A**

Directed research in specific areas of art history, stressing depth of inquiry. Subject of study chosen in consultation with department. prerequisite Permission of department. 1-3 hours credit

AR 451. Modern Architecture**D**

A study of architecture in Europe and America from c. 1800 to the present. Both general trends and the careers of major architects (such as Le Corbusier, Gropius, and Frank Lloyd Wright) will be explored. *Prerequisite* 3 hours art history or permission of department. 3 hours credit

AR 495. Independent Study Art History**A**

Independent research in specific areas of art history, stressing depth of inquiry. Subject of study chosen in consultation with department. *prerequisite* Permission of department. 1-3 hours credit

Studio Courses--The Practice of Art**AR 150. Drawing I****A**

Theory and practice in a variety of graphic media. Conte, ink, pencil, and charcoal used in studio problems to acquaint beginning student with full range of drawing possibilities. 3 hours credit

AR 151. Drawing II**A**

Continuation of Drawing I techniques; increased emphasis on modes of expression, use of color, pastels, and collage. *Prerequisite* AR 150. 3 hours credit

AR 155. 2-Dimensional Design I**A**

Introductory course investigating the principles and elements of visual design. Unity, emphasis, balance, scale, line, form, texture, rhythm and color are explored through two-dimensional studio problems. 3 hours credit

AR 252. Life Drawing I**A**

Problems of mechanics and anatomy related to the human figure. Extensive use of model in basic drawing exercises considering contour, mass, and foreshortening. *Prerequisite* AR 150 or permission of department. 3 hours credit

AR 253. Life Drawing II**A**

Expansion of problems in AR 252 drawing on wider range of media, encouraging more individual approach to drawing. *Prerequisite* AR 252. 3 hours credit

AR 255. Photography I**A**

Introduction to technical process, subject organization, and presentation. Investigation of historical concepts of photography. Lectures, darkroom laboratory, and field experience. 3 hours credit

AR 256. Photography II**B**

Increased emphasis on photography as means of expression through extensive use of variety of technical innovations and methods of visual interpretation. *Prerequisite* AR 255. 3 hours credit

AR 257. Sculpture I**A**

Introductory course that explores basic materials and techniques relating to three-dimensional experience. Classroom discussion and studio projects stress an individual interpretive approach to concepts and materials. 3 hours credit

AR 258. Sculpture II**B**

More advanced techniques of sculpture expression are introduced as concepts and personal sensitivity to form are explored. Techniques using casting and methods of metal fabrication, among others. *Prerequisite* AR 257. 3 hours credit

AR 259. Graphic Design I**B**

Introduction of principles and procedures basic to training of graphic designer; emphasis on professional media and skills necessary for development of ideas and imagery. *prerequisite* AR 155 or permission of department. 3 hours credit

AR 260. Graphic Design II**B**

Continuation of studies in application of organizational methods, concept development, structure, and graphic translation in design practice. Students develop understanding of communicating ideas visually. *Prerequisite* AR 259. 3 hours credit

AR 263. Printmaking I**B**

An introduction to three printmaking techniques linocuts, collographs and mono-prints. The development of individual expression is stressed. prerequisite AR 150 or permission of the department. 3 hours credit

AR 264. Printmaking II**B**

An introduction to intaglio printing drypoint, etching and engraving. Emphasis on drawing and technical procedures of printing. *Prerequisite AR 263. 3 hours credit*

AR 273. Ceramics I**A**

An introduction to pinchforming, coilbuilding, slab construction of projects designed to explore personal expression with clay. Slides, films and library readings expose students to cross-cultural themes in clay. 3 hours credit

AR 274. Ceramics II**A**

Development of skills involving the potter's wheel, with emphasis on design and glaze application. Critiques and slide lectures augment hands-on training. *Prerequisite AR 273. 3 hours credit*

AR 285. Painting I**A**

Basic exercises in fundamental techniques with an emphasis on color theory and formal compositional elements. 3 hours credit

AR 286. Painting II**A**

Further studio practice in oil and acrylic painting; expanded possibilities for personal expression. Individual directions encouraged. *Prerequisite AR 285. 3 hours credit*

AR 288. Landscape Painting**D**

A studio course encouraging individualized ideas relating to the landscape as a creative source of realistic and/or abstract imagery. Slide talks highlighting artists who have used landscape images in their work will augment studio practice. *prerequisite Painting I or permission of instructor. 3 hours credit*

AR 350. Drawing III**B**

Advanced studio course dealing in experimentation with media and styles. Alternatives to traditional drawing approaches are explored and thematic development is stressed. *Prerequisites AR 150, 151. 3 hours credit*

AR 352. Special Topics Studio Art**D**

Selected studio media and techniques. *Prerequisite Permission of department. 1-3 hours credit*

AR 354. Photojournalism**D**

This course develops the ability to communicate emotions and ideas through the marriage of photographs and words. *Prerequisite AR 255. 3 hours credit*

AR 355. Photography III**B**

Color processing of film and prints. Explores aesthetics and technical knowledge necessary to master art of color processing. Lab work includes color printing, correction filters, and correcting minor print defects. *Prerequisite AR 255. 3 hours credit*

AR 356. Photography IV**B**

Professional photography as a career explored through independent camera assignments, library research, and lab sections. May include photojournalism (visual communications), architectural photography, industrial and project photography, and public relations. *Prerequisite AR 355. 3 hours credit*

AR 357-358. Sculpture HI, IV**B**

Advanced studio offering greater latitude for personal expression. Opportunities for the development of technical expertise and exploration of individual intent.
Prerequisite AR 258, 3 hours credit each semester

AR 359. Graphic Design III**B**

Students develop graphic communication studio projects that stress practical application of visual problem solving. Class experiments deal with symbol expression and its design application.
Prerequisite AR 260. 3 hours credit

AR 360. Graphic Design IV**B**

Study of print design through development of publications. Students analyze relationships between imagery, typography, sequence, and content through class projects such as posters, books, brochures, and advertisements.
Prerequisite AR 359. 3 hours credit

AR 361. Typography I**B**

Study of individual letter forms and type legibility. Interrelationships between text, display type, and grid organization explored. Type specification and copyfitting.
Prerequisite AR 260. 3 hours credit

AR 362. Typography II**B**

Explores typography as a visual form of communication. Emphasis is placed on defining effective design criteria to meet the communicator's interest and the reader's needs.
prerequisite AR 361. 3 hours credit

AR 365. Production for Graphic Design**B**

Basic experiences in the preparation of artwork for printing. Students investigate printing methods, typesetting, paper, and photographic procedures.
Prerequisite AR 359. 3 hours credit

AR 370. Drawing IV**A**

Advanced studio course that stresses critical thinking as a means of self appraisal and the refinement of thematic approaches within traditional and nontraditional drawing mediums.
Prerequisite AR 350. 3 hours credit

AR 373-374. Ceramics III, IV**A**

Exploration of advanced construction techniques, in functional and sculptural genre. Involvement with clay and glaze preparation and kiln firing technology.
Prerequisite AR 274. 3 hours credit each semester

AR 380. Illustration I**B**

Emphasis on research as it pertains to editorial assignments, including series of drawings and notes before final presentations. Most work will be B&W format.
Prerequisite AR 150, 151, 155. 3 hours credit

AR 381. Illustration II**B**

Emphasis continues on research for editorial assignments with more attention given to color comps, drawings, and final presentations.
Prerequisites AR 252, 380. 3 hours credit

AR 385-386. Painting III, IV**A**

Development of unique personal outlook and acquisition of critical self-appraisal in problems of painting. Availability of acrylic or other media as warranted by student's area of interest.
Prerequisite AR 286. 3 hours credit each semester

AR 401. Graphic Design V**B**

Study of visual identity systems; conceptualization and development of entire programs, including original logotype or mark, applications to business forms, signage, packaging and the formulation of design standards.
Prerequisite AR 360. 3 hours credit

AR 402. Graphic Design VI**B**

An opportunity for more independent and investigative concepts in an area of the student's own selection. It serves as a bridge between individual problem solving and professional experience. Professional practices are explored.
Prerequisite AR 401. 3 hours credit

AR 420. Illustration III**B**

Projects will be addressed as they correspond to individual styles with assignments from outside sources within the college and community. *Prerequisite* AR 381. 3 hours credit

AR 421. Illustration IV**B**

Advanced projects working closely with faculty in publication and graphics. Portfolio review and preparation. *Prerequisite* AR 420. 3 hours credit

AR 44 1. Directed Studio Projects**A**

Directed studio work in all media. Sound background in area of investigation required. Student must file acceptable plan for proposed project.
prerequisite Permission of department. 1-3 hours credit

AR 495. Independent Studio**A****Projects**

Independent studio work in all media. Sound background in area of investigation required. Student must file acceptable plan for proposed project.
prerequisite Permission of department. 1-3 hours credit

(Arts Administration, see Special Studies, pg. 160)

BIOLOGY

Office: 205 Jewett Hall

Bruce L. Tomlinson, Chairperson

The Department of Biology offers a strong but flexible program designed to meet the needs of students with widely varied interests and career goals. Through the offering of a wide variety of courses, the department meets the needs of students with interests ranging from the molecular or physiological aspects of biology (including those with interests in pre-med or other pre-professional programs) to ecology or field oriented biology.

Students who wish to teach biology in the secondary schools may obtain provisional certification by completing the program described below and the required courses in professional education. The procedure to be followed for admission to the professional sequence of courses is described in the education department section (see page 79).

The college's programs provide the background necessary for graduate school or government and industrial positions. Students interested in pre-professional premedicine, pre-veterinarian and pre-dental programs are strongly urged to register with the Biomedical Professions Council for individual advising about specific types of professional schools.

The department offers bachelor of science degrees in biology, recombinant gene technology (see also special section on page 153), biology - secondary education, and medical technology (see also special description on page 114.)

The biology department also participates in the Cooperative Agriculture and the Cooperative Engineering programs described on page 46 and page 82, respectively.

The biology department is particularly proud of its undergraduate research opportunities. Undergraduate students work closely with faculty members on original research projects and many of our students have been co-authors of papers published in scientific journals. Research areas range from biochemistry to field ecology.

Three members of the biology department faculty have received the Chancellor's Award for Excellence in Teaching. One of the faculty is among the college's seven Distinguished Teaching Professors.

For Major in Biology (B.S. Degree)

Core Program:			Credit Hrs.
BI	131-132	Principles of Biology & Lab	4
BI	231-232	General Botany & Lab	4
BI	234-235	General Zoology & Lab	4
BI	330-331	Introductory Ecology & Lab	4
BI	333-334	Biochemistry & Lab	4
BI	340	Cell and Subcellular Biology	3
BI	431	Senior Seminar	
		or	1
BI	432	Senior Seminar	
BI	433	Genetics	3
		Plus 9 additional hours of Biology electives at the 300-400 level	<u>9</u>
			36
CH	115-116	General Chemistry I & II and CH 125-126 (Lab)	8
CH	215-216	Organic Chemistry I & II and CH 225-226 (Labs)	8
MA	120	Survey of Calculus I	3
		or	
MA	122	University Calculus I	4
PH	121-122	College Physics I & H and PH 123-124 (Labs)	
		or	<u>8</u>
PH	230-231	General Physics I & H and PH 232-233 (Labs)	

Chemistry and mathematics courses should be completed by the end of the sophomore year, physics courses must be completed by the end of the junior year. Also required for students who wish to teach biology in the secondary schools is one year of college-level study of a language other than English, or the equivalent.

For Minor in Biology: 21 or 22 hours of biology including BI 111 or 131, 231, 234 and 330 or 333 with laboratories; and an additional 6 hours of biology courses at the 300 or 400 level (not including BI 440).

NOTE: Students electing BI 330 must have completed a minimum of 4 hours of chemistry, students electing BI 333 will be expected to have completed 16 hours of prerequisite chemistry courses.

One-credit laboratory work normally includes three clock hours in laboratory per week.

BI 111. Introduction to Biology

A

Introductory course for non-science majors only. Students achieving 'B' or better may petition for transfer of credit toward a major or minor in biology. Intended to develop an understanding of the operation of biological systems and an acquaintance with basic biological concepts and principles. 3 hours credit

BI 112. Introduction to Biology

A

Laboratory

Laboratory exercises introduce students to the nature of biology. *Corequisites* BI 111, Elementary Education major or permission of the instructor. 1 hour credit

BI 115. Environmental Biology

A

Study of basic relationships between the environment and humans. Discussion of constraints and relationships found in nature from points of view of the physical and life sciences and investigation of how man makes decisions to utilize the environment as a resource from the viewpoint of the social sciences. Attempts to link natural and social sciences for awareness of multifaceted nature of environmental problems. 3 hours credit

BI 121. Human Anatomy

B

Integrated survey of gross and microscopic anatomy of human body. Lectures correlated with laboratory exercises which present dissections, microscope slides, charts and models. Two lectures, one laboratory 3 hours credit

BI 131. Principles of Biology

B

Introduction to some central concepts of biology which form the basis for more advanced study. Includes physical processes relevant to biology, biologically important molecules, basic metabolic processes, molecular and classical genetics, population and community relations and evolution. *Prerequisite or corequisite* CH 115. 3 hours credit

BI 132. Principles of Biology

B

Laboratory

Laboratory exercises familiarize students with basic laboratory skills and experimental design and provide an opportunity to measure some fundamental processes of living organisms. *Corequisite* BI 131. 1 hour credit

BI 231. General Botany

A

Evolutionary survey of the plant kingdom; emphasis on comparative morphological and systematic relationships among major plant groups. Discussion of anatomy, morphology, and physiology of angiosperms. *prerequisites* BI 131, CH 115. 3 hours credit

BI 232. General Botany

A

Laboratory

Laboratory exercises designed to complement lecture material in BI 231. Living materials are used whenever possible. *Corequisite* BI 231. 1 hour credit

BI 234. General Zoology**B**

Evolutionary survey of animal kingdom emphasizing adaptive aspects of comparative zoological forms and functions. *Prerequisites* BI 131, CH 115. 3 hours credit

BI 235. General Zoology**B****Laboratory**

A survey of animal types from Protozoa to Chordata with emphasis on the evolution of animal structure and function. *Corequisite* BI 234. 1 hour credit

BI 230-251. Basic Concepts in**B****Biology**

Examination of selected areas of general biology for interested lower division major or non-major. Emphasis on developing a basic background in such areas as botany, zoology, and the relationships between these fields and human society. Course may not be used as biology major elective. Topics are determined by student interests. *prerequisite* BI 111 or 131. 1-3 hours credit each semester

BI 254. Introduction to**D****Biological Research**

Designed to introduce the student to the principles of experimental design as applied to biological research. Individual faculty in the biology department present summaries of their personal research areas as specific examples of biological research problems. The course also serves to acquaint freshmen and sophomores with the research opportunities available in the department.

Prerequisite BI 131. 1 hour credit

BI 255. Field Natural History**D**

Selective study of local environments, designed for those who wish to teach nature study in schools or camps; observation and identification of trees, ferns, flowering plants, insects, vertebrates, and ecological principles. 3 hours credit

BI 256. Introduction to Clinical**B****Science**

A course designed to acquaint freshmen and sophomores with various career opportunities available in medical technology. Educational requirements and professional responsibilities are also discussed. Guest lectures by health professionals are featured, and students have an opportunity to tour a hospital lab. *Prerequisite* BI 131. 1 hour credit

BI 261. Human Biology**D**

Overview of biological aspects of human nature. Survey of basic human physiology mechanics of movement, digestion, circulation, respiration, excretion, nervous coordination, reproduction, and fetal development. Introduction to genetics and the record of human evolution provides starting point for discussion of adaptive significance of human intelligence and social organization. 3 hours credit

BI 330. Introductory Ecology**B**

Introduction to ecology emphasizing general principles at individual, population, and community levels. Examples of various approaches (observation, and experimentation, field and laboratory studies, and modeling and computer simulations) are considered.

prerequisites BI 131,231,234; CH 115125. 8 hours credit

BI 331. Introductory Ecology**B****Laboratory**

Laboratories designed to give a diversity of experience, building upon principles of individual, population, and community ecology. A quantitative approach to the study of ecology is emphasized. Labs include plant and animal studies and field and laboratory experiments, as well as long- and short-term studies. *Corequisite* BI 330. 1 hour credit

BI 333. Biochemistry**B**

Discussion of the structure, metabolism, and function of carbohydrates, lipids, proteins, and nucleic acids. Lectures stress the involvement of these molecules in the generation and storage of energy, the regulation of metabolism, and the expression of genetic information.

Prerequisites BI 131; CH 216, 226; MA 120 or 122.3 *hours credit*

BI 334. Biochemistry Laboratory B

Selected experiments using modern biochemical techniques, including the isolation and characterization of proteins and nucleic acids, the determination of serum concentrations of diagnostic molecules, and the application of techniques used in genetic engineering.
Corequisite BI 333. 1 *hour credit*

BI 336. Mammalian Physiology**B**

Study of mammalian physiology at various levels of organization. Basic principles of general physiology, including discussion of physical and chemical phenomena presented. Organ and system functions are related to demonstrate coordination of activities within the body. Two lectures, one laboratory. *prerequisites* BI 234, CH 215. 3 *hours credit*

BI 338. Microbiology**B**

The course includes a basic study of microbial taxonomy, morphology, biochemistry, and reproduction. Great emphasis is placed on medical microbiology, infectious diseases, microbial genetic regulation, and the application of microorganisms in recombinant gene technology. Laboratory includes identification of microbes by colonial and microscopic features, biochemical properties, and antibiotic sensitivities. Two lectures, one laboratory. *Prerequisite* BI 333. 3 *hours credit*

BI 340. Cell and Subcellular Biology**B**

Cell structure and function at cellular and molecular level using animal, plant, and microbial cells to illustrate common and divergent tenets. Physical and chemical organization of cells, analysis of the cell concept, emphasis on biochemical, physiological, and ultrastructural properties. Laboratory exercises dealing with isolation and characterization of cell fractions. Two lectures, one laboratory. *prerequisites* BI 333; MA 120 or 122. 3 *hours credit*

BI 341. Field Biology**D**

A field-oriented course with emphasis on developing scientific hypotheses and designing and conducting appropriate tests of those hypotheses. Activities include reading primary literature, identification of local flora and fauna, a wide variety of field techniques, statistical analysis, and writing of scientific reports. Some Saturday field trips required. *Prerequisite* BI 330. 3 *hours credit*

BI 343. , Conservation**B**

Study of relationships of man with nature; extensive treatment of world and national problems related to use of natural resources. Basic approach is ecological, but impact of economic, sociological, political, and ethical concepts on human ecology examined. *prerequisite* BI 111, 131 or permission of instructor. 3 *hours credit*

BI 344. Parasitology**B**

A survey of the more important protozoan and helminth parasites of humans. Special emphasis is given to epidemiology, pathogenesis, diagnosis, and treatment of common parasitic diseases. *Prerequisites* BI 234. 1 *hour credit*

BI 351. Animal Behavior**B**

Survey of theories and practices in study of animal behavior; emphasis on phylogeny and adaptive significance of behavioral patterns. Research techniques and physiological mechanisms considered in detail. *Prerequisite* BI 234. 3 *hours credit*

BI 360. AIDS and STDs**B**

Discussion of the many ways AIDS and STDs (sexually transmitted diseases) have affected people and the societies in which they live. The course begins with introductory information about

human physiology, human immune defense mechanisms, and microbiology. More detailed biological discussions focus on the transmission of AIDS and STDs, disease symptoms, treatment, and prevention. Intertwined with the scientific material will be information regarding the historical accounts of STDs, global and regional impact of AIDS and STDs, ethical, legal and public policy considerations of AIDS, economic impact of AIDS and STDs, and the psychosocial impact on the individual, family and community.

prerequisite BI 111 or 131. Junior standing. *3 hours credit*

BI 417. Comparative Animal Physiology

C

How animals maintain homeostasis in a non-homeostatic world. After a general introduction to mechanisms of cellular regulation and energetics the class will discuss specific physiological systems (respiratory, cardiovascular, osmoregulatory, etc.) and compare the modes and strategies employed by different animal groups in responding to changes in external environment. Particular attention directed to adaptations to marginal habitats, e.g. marine intertidal, deep sea hydrothermal vents, hot desert.

prerequisite BI 336 or consent of instructor. *3 hours credit*

BI 420. Population and Community Ecology

C

Reading and discussion of primary literature relating to population and community ecology. Topics include population growth, life-history patterns, competition, plant-animal interactions, and community organization. *Prerequisites* BI 330. 3 hours credit

BI 422. Physiological and Ecosystem Ecology

C

Reading and discussion of primary literature relating to physiological and ecosystem ecology. Topics include resource acquisition, energetics, nutrient cycling and energy flow. *Prerequisite* BI 330. 3 hours credit

BI 424. Aquatic Biology

C

Classification and biology of major groups of organisms that inhabit freshwater environments, characteristics of aquatic habitats, pollution of aquatic environments, and the role of physical and chemical factors in aquatic ecosystems. *Prerequisite* BI 330. 3 hours credit

BI 431-432. Senior Seminar

A

Reading, discussion, and analysis of current topics of biological significance using original source material from primary biological periodicals. Students prepare and present a seminar based on an extensive review of the available literature. Maximum one semester credit. *Prerequisite* Senior standing. *1 hour credit each semester*

BI 433. Genetics

B

Integrative genetic mechanisms at various levels of organization. Traditional and modern genetics; emphasis on trends in genetic research in terms of impact on modern concepts of the nature of the gene and mode of gene expression. Two lectures, one laboratory. *prerequisite* BI 131, 132 and BI 231 or 234. *3 hours credit*

BI 435. Developmental Biology

B

A study of animal development integrating descriptive, experimental, cellular, and molecular studies of gametogenesis, fertilization, cleavage, gastrulation, induction, and maturation. Labs examine development from an historical perspective including descriptive, experimental and molecular embryology incorporating hypothesis testing through the use of micromanipulation, cell culture, immunohistochemistry and western blotting. Two lectures, one laboratory. *prerequisite* Senior standing or permission of the instructor. *3 hours credit*

BI 440-441. Undergraduate Research

A

Independent study and research of mutual interest with a faculty member in such areas as morphology, physiology, evolution, development, population dynamics, genetics, biochemistry, cell and subcellular biology, microbiology, ecology, parasitology, and conservation. Course may be repeated; maximum of 12 credits count toward the B.S. degree, only three of which may be

included as a biology major elective. prerequisite Consent of faculty member and at least junior status in the major. *1-3 hours credit each semester*

BI 443. Plant Physiology**C**

Study of the life processes and responses of plants, including water relations and transport, photosynthesis and general metabolism, mineral and organic nutrition, photoperiodic responses and rhythms, growth and differentiation and plant relationships with the environment. Laboratory includes problems and exercises in whole plant physiology as well as at the molecular level. The laboratory stresses methods rather than results. Two lectures, one laboratory. prerequisite BI 231,333 or permission of instructor. *3 hours credit*

BI 446. Evolution**B**

Consideration of the theoretical framework of evolutionary biology and the mechanisms of evolution. Special topics include microevolution, macroevolution, and coevolution. prerequisite Senior status in major or permission of instructor. *3 hours credit*

BI 450-451. Modern Concepts in Biology**A**

An in-depth examination of selected areas of biology for interested upper- division students. Topics are determined by faculty and student interests and emphasize methods and recent research developments. Examples of topics currently offered on a rotating basis include Biomembranes, Ethology, Hormone Mechanisms, Molecular Genetics, Comparative Physiology, Cell/Hybridoma Culture, and Natural History of the Caribbean. prerequisite At least junior status in major or permission of instructor. *1-3 hours credit each semester*

BI 453. Basic Hematology**B**

Introduction to the study of blood, its cellular components, and various blood diseases. Laboratory exercises include a variety of manual techniques involved with blood cell counts and determinations. *Prerequisite BI 336. 1 hour credit*

BI 455. Histotechnique**D**

Intended to develop skills in fixing, dehydrating, imbedding, sectioning, and staining of plant and animal tissues. Students' grades based on finished slides. *3 hours credit*

BI 457. Biostatistics**C**

Statistical tests frequently used in the biological sciences. Emphasis is placed on understanding what statistics can and cannot do, the meaning of a statistical test, and how to choose an appropriate statistical test. Uses of computer statistical packages (on mainframe and microcomputers) are also considered. prerequisite Senior status in major or permission of instructor. *3 hours credit*

BI 458. Laboratory Supervision in Biology**A**

A supervisory experience in and of the teaching laboratories under the guidance of one of the biology department faculty. Student experiences may include supervising work-study students, preparing materials for the lab, demonstrating procedures, techniques, etc. to students. prerequisite Permission of the instructor. *1hour credit*

BI 460. Recombinant Gene Technology**B**

Laboratory course involving the basic techniques of genetic engineering. Experiments will focus on techniques required to clone DNA, recover the cloned gene, and sequence the cloned gene. These techniques include gel transfers of nucleic acids, isolation and characterization of DNA, expression of cloned genes, and DNA sequencing. One lecture, two laboratories. prerequisite BI 333, 334, 433, and permission of instructor. *3 hours credit*

BI 461. Immunology and Serology**B**

Study of the mechanisms of the immune response including cellular basis of immunity and molecular basis of antigen-antibody reactions. Regulation of antibody production and cell-mediated reactivity examined. Current clinical applicability considered in discussion of tumor, transplantation, allergy-related, and autoimmune immunobiology. Laboratory involves serological/immunological

determinations detecting antigen-antibody interactions. Two lectures, one laboratory
BI 333. 3 hours credit *Prerequisite*

BUSINESS ADMINISTRATION

Office: W301 Thompson Hall

Mojtaba Seyedian, *Acting Chairperson, Finance Coordinator*

Sayed-Mahmoud Aghazadeh, *Management Coordinator*

Franklin Krohn, *Marketing Coordinator*

The mission of the Department of Business Administration is to provide students with a rigorous, up-to-date curriculum that prepares them for imaginative and responsible citizenship and leadership roles in business and accounting domestic and worldwide. Responsive to the philosophy of the guidelines of the American Assembly of Collegiate Schools of Business, the curriculum is geared to social, economic, and technological developments and reflects the application of evolving knowledge in economics and the behavioral and quantitative sciences. While the programs offered are career-oriented, the department realizes that contemporary business and accounting professionals must bring a broad and varied perspective to their respective crafts. Accordingly, the department requires that prospective graduates take at least half of the 120 hours needed for a degree outside the department, with particular emphasis given to the development of written and oral communicative skills and the acquisition of the ability to think creatively and critically.

Due to the nature of the program, students in business administration find themselves prepared for a cross-section of opportunities. Recent graduates have embarked on careers in areas ranging from business and management consulting to financial planning for corporations and government. The fields of banking and investment have also interested many of our graduates. Other students have chosen sales management, insurance, or personnel administration as their field. Those wishing to pursue graduate studies have found that their rich academic background and the quantitative skills required through their course work have opened doors to major universities

The department offers two separate degrees, a B.S. in Accounting, (see page 44) which qualifies graduates to take the Certified Public Accounting (CPA) examination; and a B.S. in Business Administration with specializations in Management, Finance, Marketing, and Individualized Specializations.

The department also participates in the Cooperative Agriculture and Cooperative Engineering programs. (See pages 46, 82.)

Students are urged to declare a major in business administration as early as possible in their college careers. Students who wish to declare this major after they have earned 90 credit hours will need the permission of the department chairperson and the Dean of the Faculty of Arts and Sciences.

Opportunities for Experiential Learning

In addition to its regular course offerings, the department has an active internship program. Internships are work-experiences for which students receive academic credit. The department has a number of standing internships with various firms and organizations, such as, Alumax Extrusions, Inc., AL Tech Specialty Steel Corp., Dunkirk Ice Cream Co., National Fuel, Red Wing Co. Ltd., and Marine Midland Bank. Also, established under the auspices of the U.S. Small Business Administration, the Small Business Institute is a special program in which a small number of highly motivated seniors in business administration or accounting serve as consultants to area small businesses. The S.B.I. is a laboratory in which students are given an opportunity to integrate classroom and real world experiences in solving problems that beset small businesses.

Student Clubs and Activities

As a business administration or accounting major, students can participate in a number of student clubs or activities that are designed to supplement classroom work with extracurricular experiences of a professional nature. These include but are not limited to the Business Club; a collegiate chapter of the American Marketing Association; the Accounting Society, and the Investment Club. Students of any major may also participate in the Volunteer Income Tax Assistance Program, a service provided under the auspices of the Internal Revenue Service, through which students help

to prepare individual personal income tax returns for low income and elderly persons living in Chautauqua County.

Honors and Awards

Students who excel in their studies are eligible for recognition through membership in the campus chapter of Delta-Mu Delta, a national honor society in business administration. Initiation is competitive and highly selective. Besides the honor society, individual students can be recognized for outstanding scholastic achievement. Each year the faculty presents four special awards, the M.R. Poummit Achievement Award to the graduating senior with the highest grade point average, the Wall Street Journal Achievement Award, given to the graduating senior whose overall scholarship and community service best exemplifies the mission of the department, the Financial Executive Institute Award to the outstanding senior in accounting, and the Financial Management Association National Honor Society Recognition of Honor Students in Finance. The department also awards each year the Donald C. Brandt Memorial Scholarship to an outstanding junior or senior. Accelerated Masters of Business Administration.

Accelerated Masters Of Business Administration

The Department of Business Administration has entered into a number of formal and informal agreements with several universities that allow our students to matriculate into accelerated B.S./M.B.A. programs. All such agreements usually reduce by one the number of years it takes a full-time student to complete a B.S. and M.B.A. The department has a 3/2 agreement with SUNY at Buffalo which requires three years of study at Fredonia and two years at Buffalo to finish the program. A similar 3/2 agreement exists with SUNY at Binghamton. The department also has 4/1 arrangements with Clarkson University, Rochester Institute of Technology, and the University of Pittsburgh, and a less structured but nonetheless accelerated program with Case-Western Reserve University. Students who are interested in any of these accelerated M.B.A. programs should see the chairperson of the Department of Business Administration early in their freshman year, as completion of these programs usually involves careful course selection.

Requirements for the B.S. Degree in Business Administration

1. Students who plan to major in Business Administration must complete a minimum of 48 semester hours of core requirements as indicated below:

CS	104	Intro. to Microcomputers(strongly recommended)	3
		or	
CS	105	Intro. to Computing	3
		and	
MA	120	Survey of Calculus I	3
		or	
MA	122	University Calculus I	4
and			
BA	200	Fund. or Stats.for Business& Econ.	3
AC	201	Principles of Accounting I	3
AC	202	Principles of Accounting II	3
EC	201	Principles of Macroeconomics	3
EC	202	Principles of Microeconomics	3
EC	300	Statistics for Econ. & Business	3
BA	310	Legal Environ. of Business	3
BA	315	Principles of Business Finance	3
BA	321	Management & Org. Behavior	3
BA	322	Operations & Production Management	3
BA	324	Management Info. Systems I	3
BA	325	Principles of Marketing	3
BA	423	Business Policy	3
BA	476	International Business	3

2. Students majoring in Business Administration must complete a minimum of 8 credit hours within a selected specialization as indicated below:

A. Finance

AC	303	Cost Accounting	3
AC	304	Taxation	3

EC	315	Money, Banking, and Monetary Economics	3
BA	316	Investment Analysis	3
BA	417	Financial Management I	3
BA	418	Financial Management II	3

B. Management

AC	303	Cost Accounting	3
BA	330	Human Resource Management	3
BA	411	Marketing Management	3
BA	417	Financial Management I	3
BA	424	Production Management	3

PLUS at least one of the following:

BA	350	Selected Topics in Business	3
BA	420	Operations Research and Decision Analysis	3
BA	426	Management Info, Systems II	3
BA	440	Adv. Human Resource Mgmt	3
BA	XXX	Senior Seminar (Variable course number and credit)	X
BA	498	Small Business Institute	3

C. Marketing

BA	340	Marketing Research	3
BA	411	Marketing Management	3
BA	442	Consumer Behavior	3
BA	444	Advertising and Sales Promotion	3
BA	446	Sales Management	3

PLUS at least one of the following:

BA	350	Selected Topics in Business	3
BA	426	Management Info. Systems II	3
BA	XXX	Senior Seminar (Variable course number and credit)	X
BA	498	Small Business Institute	3
CM	379	Persuasion	3

D. Individualized Specializations

With the approval of his or her advisor and the chairperson of the department, a student may develop his or her own specialization. Such specializations must consist of at least six upper-level courses in a cohesive subject area germane to business. Currently popular individualized specializations include but are not limited to: Management Accounting, Entrepreneurial Studies, Management Information Systems, Human Resources Management, Business Law, Management and Government, and International Business. Other specializations are possible and encouraged as long as they satisfy the department's conditions for rigor and substance.

3. Business administration majors must complete a minimum of 27 credit hours of upper-level business administration and/or accounting courses at the College at Fredonia.

BA 101. American Business Systems**D**

An introductory study of the evolution and present state of American business systems from the perspective of the practicing manager. Attention is given to the relationship of such functional areas of business as production, marketing, finance, and accounting, and how they are integrated to form the whole enterprise. prerequisite Freshman or sophomore standing. 3 hours credit

BA 200. Fundamentals of Statistics for Business and Economics (also EC 200)**A**

An introductory study of statistical methods as applied to business and economic problems. Topics covered include frequency distributions, measures of central tendency, measures of dispersion, probability, probability distributions, sampling distributions, estimation, statistical inference, and simple linear regression. Emphasis on the use and abuse of statistics. Prerequisite MA 108 or 120 or 122. 3 hours credit

BA 310. Legal Environment of Business**A**

A general study of public law and regulation of business; how law is made and implemented with emphasis on regulatory agencies. Unlike the traditional business or private law course, this course deals with public law, pointing out the limitations and uncertainty experienced by business in complying with public law. *Prerequisite* Junior standing. 3 hours credit

BA 315. Principles of Business Finance**A**

An examination of the conceptual and institutional framework within which the financial manager operates. Emphasis is on developing an analytical approach to decision-making in the finance area. Topics include planning and managing assets, planning the financial structure, management of funds, valuation process. *prerequisite* AC 202; BA 200; EC 201, 202. *3 hours credit*

BA 316. Investment Analysis**B**

A study of investment objectives; basic determinations of investment values; securities market organization; approaches to investment analysis; evaluation of valuation theories and procedures and individual and institution portfolio policies *Prerequisite* BA 315. 3 hours credit

BA 319. Health Care Finance**B**

An introductory course on the application of financial management techniques in the health care industry. Particular emphasis is placed on understanding the unique problems facing the industry in the financial relationships among hospitals, patients, physicians and other providers, insurance, capital suppliers and governmental agencies. *prerequisites* AC 202; EC 201,202; BA 315 strongly recommended *3 hours credit*

BA 321. Management and Organizational Behavior**A**

A study of the process of management focusing on organizational behavior; introduction to behavioral science concepts and applications to management, with emphasis on human relations, informal organization, motivation, and leadership *Prerequisite* Junior standing; PY 245 or SO 204 strongly recommended. 3 hours credit

BA 322. Operations and Production Management**A**

A study of the management of business operations affecting the production of goods and services in both manufacturing and service industries. Topics covered include process design, capacity planning and scheduling, inventory management, and quality planning and control *Prerequisite* BA 321. 3 hours credit

BA 324. Management Information Systems I**A**

An introduction to the process of integrating operating systems in complex organizations. MIS is a computer-based process whereby information flows are managed through systematic designs and procedures to provide better and more efficient management of the organization. The emphasis is on management decision-making and control within planning structures. The technology is computer science. *prerequisite* BA 321; CS 104 (Preferred) or CS 105. *3 hours credit*

NOTE Credit will not be given for both BA 324 and AC 407.

BA 325. Principles of Marketing**A**

An introduction to the field of marketing and marketing management. Emphasis on the marketing function of pricing, promotion, distribution, and product design. Consumer as well as producer perspective will be examined. *Prerequisites* EC 201,202. 3 hours credit

BA 330. Human Resource Management**B**

A study of the personnel function. Topics covered include recruitment and placement, compensation and motivation, appraisal and development, legal environment, and future of personnel. Emphasis on how managers can deal with and use the personnel function. *Prerequisite* Junior standing. 3 hours credit

BA 340. Marketing Research**B**

A study of the methodology and techniques of research basic to developing marketing strategy. The nature and scope of marketing research, research design, and data collection methods, including sampling, are reviewed. Critical appraisals through implementation, analysis, and interpretation are emphasized in individual field projects.

prerequisites BA 325; CS 104 or CS 105; EC 300. 3 hours credit

BA 350. Selected Topics in Business**D**

A variable-content, upper-level course on a particular problem or topic as announced in the *Course Offerings Bulletin* each semester. Recent topics have included Entrepreneurship, Health Care Finance, International Marketing, and Tourism Marketing.

prerequisite Junior standing. 3 hours credit

BA 355. Labor and Industrial Relations (also EC 355)**D**

A study of the origin, growth, and development of labor organizations and their interactions with managements in a social, economic, political, and legal context. Topical areas include the process of union organization, certification, bargaining structures, contract administration, and methods of impasse resolution. Current issues are discussed that have an impact upon employees, their organizations, and the public. *Prerequisite* EC 325. 3 hours credit

BA 411. Marketing Management**B**

A case-oriented course in applying marketing principles to marketing problems. Additional readings from current topics in marketing are covered. *prerequisite* Senior standing; BA 322, 325. 3 hours credit

BA 417. Financial Management I**B**

An examination of problems related to the investment, acquisition and distribution of financial resources. Stress is placed upon integrating these areas in one system to facilitate and evaluate the operation of the finance function. *Prerequisite* BA 315. 3 hours credit

BA 418. Financial Management II**B**

A continuation of the study of problems related to the management of financial resources. Basic topics such as capital budgeting and cost of capital are covered in greater depth. Other topics such as leasing and mergers which are not covered in the prior course are introduced. *Prerequisite* BA 417. 3 hours credit

BA 420. Operations Research and Decision Analysis (also EC 420)**D**

An analytical course concerned with decision criteria when faced with uncertain outcomes; problem of optimal allocation of resources; linear programming models (formulation of problems, graphical solutions, interpretation of computer programmed solutions, the dual and its implications); and decision models for competition (two person zero sum game) formulation of problems, algebraic and graphical solutions, interpretation of results.

prerequisites BA 200; CS 104 or CS 105. 3 hours credit

BA 423. Business Policy**A**

A study of policy making and administration from a general management point of view. Utilizes and integrates knowledge and skills from the different functional areas of business and related disciplines in problem analysis and decision-making. Case studies, role-playing and group projects are used to allow the student to simulate the process of policy formulation in the firm.

prerequisites Senior standing; BA 315, 321, 325. 3 hours credit

BA 424. Production Management**B**

A course in production operations and service-based management systems. Topics production operations, inventory control, scheduling, service functions, plant and company layout, and decision structures in both private and public sector organizations. *Prerequisites* BA 200; 322. 3 hours credit

BA 426. Management Information Systems II**D**

Provides a general background of theory and applications pertaining to the use of computers in business administration. In addition to covering significant concepts and terms related to computers, students will use the Compaq PC and Unisys Mainframe computers. Spreadsheet (Lotus 1-23), data base management (dBASE II or dBASE III Plus), and word processing packages serve as the basis for instruction . in this course.*Prerequisite* BA 324. 3 hours credit

BA 430. Independent Study**A**

A course for highly motivated students to undertake, under guidance, special studies of areas of business administration which are not normally covered in other courses.*Prerequisite* Permission of instructor. 1-3 hours credit

BA 440. Advanced Human Management**D**

The application of personnel administration concepts to specific business problems. Included will be development of an affirmative action plan, actual job analysis, and development of a compensation plan.*Prerequisite* BA 330. 3 hours credit

BA 442. Consumer Behavior**B**

A social psychology-based course that deals with consumer motivation, attitudes, cognition, and personality and how these relate to the social influences on consumer behavior. prerequisites BA 325; PY 245. 3 hours credit

BA 444. Advertising and Sales Promotion**B**

An analysis of the importance of the promotion mix including publicity, advertising, and personal selling. Discussion of advertising agencies, creating the advertising message, media strategy, special techniques, and practical experience in developing an advertising campaign. prerequisite BA 325; SO 305 recommended,3 hours credit

BA 446. Sales Management**B**

An examination of the techniques of personal salespersonship and the nature of the sales manager's job including recruiting, training, and managing a sales force. Sales planning and analysis are also reviewed.*Prerequisite* BA 325. 3 hours credit

BA 450-451. Senior Seminar**D**

Seminars dealing with contemporary problems that are designed so that students may utilize what they have learned. These seminars also serve to introduce students -to interdisciplinary approaches in problemsolving and lead to possible areas of graduate or professional work. Topic will vary from semester to semester. prerequisiteSenior standing or permission of the department. 1-3 hours credit

BA 452. Labor Law and Protective Legislation**D**

The course emphasizes the interrelationship between federal and state legislation relating to employee rights, benefits, and responsibilities in the Fair Labor Standards Act, Equal Pay Act, Employee Retirement Income Security Act, and the Civil Rights Act of 1963, together with state legislation in the areas of workmen's compensation, safety, and fair labor standards, using a variety of approaches and sources.*Prerequisite* Junior standing. 3 hours credit

BA 454. Collective Bargaining and Arbitration**D**

A study of employee-employer relationships concerning wage rates and systems, hours and overtime, working conditions, and other problems solved by the collective bargaining process. Special attention given to the process of dispute settlement emphasizing the setting, legal status, and scope of labor arbitration.*Prerequisite* EC 325. 3 hours credit

BA 476. International Business**A**

An analysis of the business policies of the multinational corporations in the U.S. and the world. Topics emphasized include the evolution of the multinational corporation, its organization, structure, planning and business strategies including marketing, production, technology, human resources, finance, insurance, law and accounting. Concerns and policies of both the U.S. and host countries are highlighted. *Prerequisites* BA 315, 321, 325. 3 hours credit

BA 480481. Internship**A**

These courses provide credit to students for professional experiences which are closely related to their field of study. Enrollment is to be arranged with an appropriate instructor. prerequisite Junior standing. 1-12 hours credit

BA 498. Small Business Institute**B**

Established in conjunction with the U.S. Small Business Administration, the Small Business Institute engages students as consultants to area businesses. The course gives students the opportunity to integrate creatively classroom work with actual experience in solving problems within realistic managerial constraints. *Prerequisite* Senior standing. 3 hours credit

CHEMISTRY

Office: 207 Houghton Hall

James R. Bowser, *Chairperson*

The goals of the chemistry department are to prepare its majors for advanced study in chemistry, chemical engineering, or related disciplines; for careers in teaching; and for careers in industrial, environmental, and governmental laboratories.

The department offers two tracks, each leading to a B.S. in Chemistry degree. Track I, the Standard Major, is often chosen by students having second majors or minors in related disciplines. Track II satisfies the curriculum requirements of the American Chemical Society (A.C.S.) and is recommended for students interested in graduate or professional schools. Both tracks require the completion of a Core Program. There are additional requirements for Track II.

Grading Standards: A minimum C- grade is necessary for all *required* chemistry courses counted toward the major or minor; a collective minimum 2.00 grade point average is necessary for all required mathematics/computer science, and physics courses.

prerequisites / Corequisites for Laboratory Courses: There are both separate enrollment and separate credit for all related lecture and laboratory courses. There are, therefore, some general requirements for laboratory courses:

- (1) CH 126 or 130 is a prerequisite for any laboratory course at a higher level;
- (2) for all laboratory courses the corresponding lecture course is a pre- or corequisite;
- (3) if a student drops or withdraws from a lecture course, he/she may be required to withdraw from the corresponding laboratory course.

Cooperative Engineering and Agriculture: The chemistry department participates in the Cooperative Agriculture and Cooperative Engineering programs. Refer to descriptions of these programs on pages 46 and 82 respectively.

For B.S. Degree in Geochemistry, an interdisciplinary program with the geosciences department: The course requirements for this curriculum are given on page 96.

Teacher Certification: Students wishing to teach chemistry in the secondary schools can obtain provisional certification by completing either of the tracks described below and the required courses in Professional Education. The procedure to be followed for admission to the professional sequence of courses is described on page 79. Also required is one year of collegelevel study of a language other than English, or the equivalent.

A.C.S. Approved Track: The curriculum for the A.C.S. Approved Track is reviewed annually by the A.C.S. Committee on Professional Training. If, because of this review, it becomes necessary to modify the curriculum requirements, revisions will be on file with both the Dean for Arts and Sciences and the Vice President for Academic Affairs. Such revisions would be in effect for students who had completed less than 60 hours at the time of the revision.

For Minor in Chemistry: A minimum of 24 credit hours in chemistry is required including CH 115-116, 125-126 or 130, and 16 additional hours at the 200 level or above. Of these additional hours:

- (1) at least 2 hours must be in laboratory courses,
- (2) at least 6 hours must be from 300 or 400 level courses, and
- (3) CH 305, 371, and 372 cannot be counted.

Requirements for the B.S. in Chemistry Degree

Core Program Track 1. Standard Major (42 hours in Chemistry; 19 hours in related disciplines)

CH	115-116	General Chemistry I & II	6
CH	125	General Chemistry I Lab	1
CH	126 or 130	General Chemistry II Lab	1
CH	215-216	Organic Chemistry I & II	6
CH	225	Organic Chemistry I Lab	1
CH	226 or 230	Organic Chemistry II Lab	1

CH	290	Introduction to Research	1
CH	315-316	Physical Chemistry I & II	6
CH	325-326	Physical Chemistry I & II Lab	2
CH	317-318	Analytical Chemistry I& II	6
CH	327	Analytical Chemistry I Lab	1
CH	328	Analytical Chemistry II Lab	2
		Independent Laboratory	3
		Research (CH 391,392, 491,492)	
		Advanced Lecture Elective (400 level)	3
CH	495-496	Seminar	2
			42
PH	230-231	General Physics I & II and PH 232-233 (Labs)	8
MA	122-123	University Calculus I & II	8
CS	104	Introduction to Microcomputers or	3
CS	105	Introduction to Computing or	3
CS	125	FORTRAN Programming	
			19

Additional requirements - Track H (A.C.S. Approved Major)

CH	462	Inorganic Chemistry	3
CH	472	Inorganic Chemistry Lab	1
		Mathematics Elective- any mathematics course having MA 122 or 123 as a prerequisite	3

CH 105. Food Chemistry

B

Introductory course for non-science majors only. Chemical aspects of the collection, preparation, storage, cooking, and consumption of food. Not applicable toward a major or minor in chemistry. 3 hours credit

CH 107.' Chemistry for Consumers

A

Introductory course for non-science majors; emphasis on practical aspects of, chemistry in everyday life. Topics include nuclear chemistry, foods, gardening, pest control, health chemistry, and home products. Not applicable toward a major or minor in chemistry. 3 hours credit

CH 113. Chemistry and the Environment

C

Basic chemical principles presented. Emphasis on their relationship to environmental problems of our society. Study of chemical nature of substances and their transformations from environmental point of view. Not applicable toward a major or minor in chemistry. 3 hours credit

CH 114. Introduction to Chemistry

A

An introduction to chemical principles, emphasizing formulas, equations, bonding, atomic structure, nomenclature, periodic properties, and chemical calculations. Intended for students who have not taken chemistry in high school and/or who plan to take CH 115-116 but feel unprepared to do so. Not applicable toward a major or minor in chemistry.

prerequisite Secondary school algebra or MA 105.3 *hours credit*

CH 115-116. General Chemistry Lecture I & II

A

Nuclear, electronic, and molecular composition and structure and principles of chemical bonding used to describe nature and reactivity of atoms, ions, and molecules. Includes laws governing behavior of gases, liquids, and solids with consideration of oxidation-reduction, equilibrium, free energy, entropy, electrochemistry, and rates of chemical reactions. prerequisite CH 114 or Regents high school chemistry; MA 105 or equivalent. *3 hours credit each semester*

CH 125-126. General Chemistry Laboratory I & II

A

Some fundamental principles in experimental investigation of chemical substances and phenomena. Includes consideration of chemical and physical properties and typical reactions of inorganic and organic compounds. Equilibria, thermochemistry, oxidation-reduction, rates of chemical reactions, and volumetric, gravimetric, and qualitative analysis investigated. One laboratory period per week. *1 hour credit each semester*

**CH 130. Honors General
Chemistry Laboratory**

B

Directed studies designed to foster independence of thought and improve laboratory technique. Emphasis on quantitative determinations by acid-base, complexation, and spectroscopic methods. Open to chemistry majors and others by permission of department. One laboratory period per week. prerequisites CH 115 and 125. *Corequisite* CH 116. *1 hour credit*

**CH 215-216. Organic Chemistry
Lecture I & II**

B

Structure and reactions of the most important classes of organic compounds hydrocarbons and principal functional groups of the compounds of carbon. Structure, occurrence, properties of organic compounds of biological significance *Prerequisite* CH 116 or equivalent. *3 hours credit each semester*

CH 225-226. Organic Chemistry Laboratory I & 11

B

Techniques for determination of physical and chemical properties, synthesis, and isolation from natural sources, of organic compounds. Nuclear magnetic resonance and infrared spectroscopy incorporated in experiments. One laboratory period per week. *1 hour credit each semester*

**CH 230. Advanced Organic
Laboratory**

C

The utilization of instrumental methods and advanced laboratory techniques in organic chemistry. Includes hands-on use of various instrumental methods including infrared, nuclear magnetic resonance, and gas chromatography. One three-hour laboratory period per week. *Prerequisite* CH 225. *1 hour credit*

**CH 281. Special Topics in
Chemistry**

D

Topics of special or current interest offered periodically. Credit allowed for a particular course set by department. Appropriate prerequisites, varying with nature of course offering, determined by instructor. *1-3 hours credit each semester*

**CH 290. Introduction to
Research**

B

Prepares the student to carry out independent research. Topics include the philosophy of research, descriptions of current faculty research interests, research records, laboratory safety, use of the chemical literature, technical writing, and research tools and methodology. One lecture per week. (Required for A.C.S. majors.) *Prerequisite* to CH 391,392,491,492. *1 hour credit*

CH 300. The Nature of Science

A

For non-science majors only. Acquaints students with the principles and methods of science using examples' taken mainly from chemistry. Relationships of science to the activities of non-scientists. Approved for Part III of the General College Program *3 hours credit*.

**CH 302. Chemistry in Today's
Society**

D

For non-majors only. Discussion of 'chemistry topics of major relevance to society, including some useful industrial processes, pollution, energy sources, and the detection of hazardous materials, especially those of local concern. Approved for Part III of the General College Program. *Prerequisite* CH 114 or CH 115. *3 hours credit*

**CH 305. Laboratory Supervision
in Chemistry**

A

Students enrolling in this course serve as laboratory assistants under supervision of a faculty member. Students selected by department after completing application form (available from chairperson). Four hours of work per week expected for each hour of credit elected; may be taken more than once. Does not count toward major requirements. prerequisite Permission of chairperson *1-2 hours credit each semester*

CH 310. Structure and Bonding**D**

Discussions of some theories basic to modern inorganic chemistry. Topics include periodicity; symmetry; molecular or orbital theory; the solid state; and covalent, ionic, and metallic bonding. *Prerequisite* CH 116. *1 hour credit*

CH 315-316. Physical Chemistry I & II Lecture**B**

Application of the laws of kinetics, thermodynamics, quantum mechanics, and statistical thermodynamics to chemical systems. Theories relating to spectroscopy and molecular structure. *prerequisites* CH 116; MA 123; PH 231 and 233. *3 hours credit each semester*

CH 317. Analytical Chemistry I Lecture**B**

Gravimetric, volumetric, and elementary instrumental determinations. Emphasis on volumetric analysis. Neutralization, oxidation-reduction, complexometric, and electrochemical methods. Introduction to computer methods in chemistry *Prerequisites* CH 116; CS 105. *3 hours credit*

CH 318. Analytical Chemistry II Lecture**B**

Continuation of CH 317. Application of instrumental methods to quantitative chemical analysis, including spectroscopy, coulometry, potentiometry, polarography, chromatography, nuclear and chemical methods. *prerequisites* CH 315, 317 *3 hours credit*

CH 325-326. Physical Chemistry I & II Laboratory**B,**

Laboratory experiments designed to accompany CH 315-316. One laboratory period per week. *1 hour credit each semester*

CH 327. Analytical Chemistry I Laboratory**B**

Laboratory experiments designed to accompany CH 317. *1 hour credit*

CH 328. Analytical Chemistry II Laboratory**B**

Laboratory experiments designed to accompany CH 318. *2 hours credit*

CH 371-372. Internship in Chemistry**A**

Approved practical experience in industrial, public health, commercial, consulting, forensic, or other laboratories. Internships may accompany paid working time arrangements. *prerequisite* Permission of chairperson. *1-3 hours credit per semester*

CH 381. Special Topics in Chemistry**D**

Topics of special or current interest offered periodically. Credit allowed for a particular course set by department. Appropriate prerequisites, varying with nature of course offering, determined by instructor. *1-5 hours credit each semester*

CH 391-392. Independent Laboratory Research**A**

For students having junior standing. See CH -491-492 for list of study and research areas. Prerequisites depend upon areas of study and research *Prerequisite* CH 290. *1-3 hours credit each semester*

CH 401. Computational Chemistry**C**

Discussion-of the use of computers in chemistry. Topics include data acquisition, statistical analysis, databases and spreadsheets, Monte Carlo and molecular dynamics simulations, and quantum methods. *Prerequisite* CH 315. 3 hours credit

CH 407. Organometallics**C**

Introduction to the chemistry of transition metal organometallics. Descriptions of the bonding, synthesis, structures, and reactions of major classes of organometallic compounds, as well as their role in organic synthesis and catalysis. *Prerequisite* CH 216. 3 hours credit

CH 411. Physical Organic Chemistry**D**

Molecular orbital theory, resonance, acid-base theory and mechanisms of organic reactions including unimolecular and bimolecular substitution reactions and intramolecular arrangements. *Prerequisites* One year organic chemistry, one year physical chemistry. 3 hours credit

CH 412. Advanced Organic Chemistry**D**

The utilization of certain types of reactions for the synthesis of compounds having significance to organic or bioorganic chemistry. Examples include addition/elimination; oxidation/reduction; free radical; carbanionic; pericyclic; and other types of reactions. *prerequisite* One year organic chemistry. 3 hours credit

CH 417. Polymer Chemistry I**C**

An overview of polymers, with an emphasis on their chemistry, properties, and significance. Focus on the synthesis, characterization, and fabrication of polymers. *Prerequisites* Organic chemistry and prior (or concurrent) enrollment in CH 315. 2 hours credit

CH 418. Polymer Chemistry II**C**

Continuation of CH 417. Emphasis on the physical chemistry of polymers. *Prerequisites* CH 417 and CH 315. 1 hour credit

CH 421. Advanced Physical Chemistry - Thermodynamics**D**

Application of theory of thermodynamics to chemical systems, including methods of quantum statistics. *prerequisites* One year physical chemistry, one year calculus. 3 hours credit

CH 422. Advanced Physical Chemistry - Quantum Chemistry**D**

Basic concepts of wave mechanics and the application to topics of interest to chemists. *prerequisites* One year physical chemistry, one year calculus, one year physics. 3 hours credit

CH 431. Advanced Analytical Chemistry - Detection**D**

Identification and quantification of elemental and molecular species by modern instrumental techniques. *prerequisites* One year physical chemistry, one semester instrumental analysis. 3 hours credit

CH 432. Advanced Analytical Chemistry Chromatographic Separations**D**

Separation techniques based on differential migration. Gas, thin layer, ion exchange, high performance liquid, permeation chromatographics, and field flow fractionation. *prerequisite* One year physical chemistry, one semester instrumental analysis. 3 hours credit

CH 462. Inorganic Chemistry**B**

Topics include introduction to molecular symmetry and group theory. Discussions of electronic structure of atoms and their periodic properties followed by detailed considerations of ionic and covalent bonding. Acidbase theories presented in addition to general chemistry of the elements

with emphasis on transition metals. Introduction to organometallic chemistry and bio-inorganic chemistry included. *Prerequisite* CH 315. 3 hours credit

CH 472. Inorganic Chemistry Laboratory **B**

Laboratory studies of inorganic and organometallic compounds and ions. Synthetic experiments require inert atmosphere (vacuum line, dry box, and Schlenk) techniques; characterization by spectral, solid-state, and electrochemical methods. One laboratory period per week. *Prerequisites* CH 315 and 325. *Corequisite* CH 462. 1 hour credit

CH 473. Chemistry and the Environment **C**

Interrelationships of chemistry with the environment. Topics include water quality and chemistry, waste disposal, atmospheric chemistry, and the chemistry of energy and power production. Class activities will include discussions of technical papers drawn from the contemporary scientific literature and simulation of environmental problems through computer models. 3 hours credit

CH 481. Special Topics in Chemistry **A**

Topics of special or current interest offered periodically. Credit and prerequisites vary with nature of course offerings. 1-3 hours credit

CH 490. Independent Study **A**

Topics of special interest. Non-laboratory work in association with faculty supervisor. May require course prerequisites as determined by instructor. prerequisite Permission of chairperson 1-3 hours credit

CH 491-492. Independent Laboratory Research **A**

For students having senior standing. Study and research areas include analytical, inorganic, organic, physical, and polymer chemistry. Prerequisites depend upon areas of study and research. *Prerequisite* CH 290. 1-3 hours credit each semester

CH 495-496. Seminar Recent Advances in Chemistry **A**

Topics of current research interest; presentations by seniors, graduate students, faculty, and visitors. Every student is required to present one seminar during one of the two semesters. Emphasis on detailed knowledge of subject matter, techniques for searching the professional literature, and procedures for the preparation and presentation of a professional seminar. Chemistry majors must enroll in seminar in both of their last two semesters. 1 hour credit each semester

CH 499. Senior Thesis **B**

Preparation of an extensive written account of the student's original laboratory research including an in-depth literature survey, background discussion, presentation of data and results, and conclusions. Open to majors only prerequisite Permission of department. 1 hour credit

COMMUNICATION

Office: 326 McEwen Hall

Ted Schwalbe, *Chairperson*

Communication is one of the oldest areas of academic study. Students of communication investigate the communication processes as they occur both in face-to-face and mediated settings.

The Department of Communication offers major specializations in Audio/Radio Production, Human Communication, Media Management, and Video Design and Production.

The department also offers a minor in Communication.

Graduates of the program have gone on to successful careers working in private industry, government agencies, and the armed forces as well as in independent consulting and production. Communication students have also continued their education in graduate programs and law schools around the country.

Because the department has been designated as an impacted department, admission into the department and continuation in a chosen specialization is subject to review by the department. Criteria will include grade point average as well as performance in the specialization. Overall GPA, performance in communication courses and related activities are taken into consideration. Students are encouraged to supplement their academic work with participation in applied activities including the campus radio stations (WCVF AM and FM), the campus television station (WNYF), the local chapter of Alpha Epsilon Rho (the National Broadcasting Society), the Applied Communication Association and off-campus internships.

The department offers several awards and scholarships for entering freshmen, continuing students and graduating seniors, including the Louis C. Adler Scholarship, the Anne Bernstein Memorial Award, the Edward S. Edelman Scholarship, the Arthur R. Maytum Scholarship, and the Arlie Muller Parks Scholarship.

For the B.S. Degree in Communication

Major Requirements: Majors may obtain a B.S. degree in Communication with specialization(s) in:

Audio/Radio Production
Human Communication
Media Management
Video Design and Production

A major program in Communication requires 37-40 hours of study including 13 credits of core courses required by every student in the department and 24-27 credits of courses in the individual specialization. In addition, the department requires all students to declare a minor which must be officially recognized by the offering department. The minor should be chosen in consultation with a communication advisor. Substitutions in requirements for specializations may be made only by approval of faculty members designated for the specific specialization.

Because the department is always trying to improve its academic offerings, course offerings and requirements for the major and each specialization may be changed. Students are urged to see the department for the latest requirements.

Communication Core: 13 hours

CM	101	Fundamentals of Communication	3
CM	102	Mass Media and Society	3
CM	155	Rhetoric of Vision and Sound	3
CM	199	Communication Orientation (required for new freshmen only)	1
CM	201	Rhetoric and Criticism	3

A.Audio/Radio Production Specialization: 38 credit hours (including core requirements)

Development of conceptual, aesthetic, and technical skills in audio production for radio and other media. Focus is on listening and the creative use of sound to engage an audience through the selection and use of voice, music, and ambiance. Applications to commercial and public service announcements, news, documentary, drama, music programming, audio art, and audio for television, theater and film.

Requirements:		Hrs.
Communication Core Plus		13
<i>SPECIALIZATION: 25 credit hours</i>		
Group A - Specialization Core - 16 credit hours		
CM 251	Audio Production	3
CM 351	Intermediate Radio Production	3
CM 353	Communication Law & Ethics	3
and one of the following:		
CM 200	Electronic Media Writing	3
	or	
CM 361	Script Writing for Video, Film and Radio	
and <i>one</i> of the following		
CM 395	Radio News	4
CM 451	Radio Documentaries	4
CM 456	Radio Programming & Production	4
Group B - Specialization Electives - 9 credit hours		
3 courses from the following:		
CM 105	Public Speaking	3
CM 221	Interpersonal Communication	3
CM 301	Group Communication	3
CM 350	Telecommunication Technology	3
CM 385	Comparative Broadcasting Systems	3
CM 400	Broadcast Station Operations	3
SH 201	Voice, Articulation & Resonance	3

B. Human Communication Specialization: 37 credit hours including core requirements)

Emphasizes the study of human interaction in both mediated and non-mediated communication. Students will study the communication process and its elements across a variety of communication contexts and situations. Courses will cover theories and skills regarding relational development, group decision making, public speaking, communication ethics, research and evaluation, and organizational communication. The goal of the specialization is to develop the student's ability to understand and apply theories and skills in communication performance, message construction, and communication analysis and evaluation across social and professional settings.

Requirements:		Hrs.
Communication Core <i>Plus</i>		13
<i>SPECIALIZATION: 24 credit hours</i>		
Group A - Specialization Core - 12 credit hours from:		
CM 105	Public Speaking	3
CM 221	Interpersonal Communication	3
CM 295	Communication Research & Survey Methods	3
CM 301	Group Communication	3
Group B - Specialization Electives - 12 credit hours - choose 4 from the following.		
NOTE: Group B courses must be taken after completing CM 101,201 and Group A.		
CM 205	Adv. Public Speaking	3
CM 310	Verbal Communication	3
CM 311	Nonverbal Commun	3
CM 379	Persuasion	3
CM 458	Special Topics	3
CM 460	Organizational Commun	3

CM	461	Commun. Training & Dev	3
CM	465	Intercultural Commun	3
CM	495	Communication Theory	3

C. Media Management Specialization: 37 credit hours including core requirements)

For students interested in nonproduction areas of electronic media. Includes sales, management, regulation, promotion, and research in broadcast and other elect, tonic media such as cable television and satellites.

Requirements:

			Hrs.
		Communication Core Plus	13
		<i>SPECIALIZATION: 24 credit hours</i>	
		Group A - Specialization Core - 15 credit hours - choose five from among the following:	
CM	295	Research & Survey Methods	3
CM	350	Telecommunication Technology	3
CM	353	Communication Law & Ethics	3
CM	375	Media Criticism	
		or	3
EN	281	Film and TV Analysis	3
CM	385	Comparative Broadcasting Systems	3
CM	400	Broadcast Station Operation	3
CM	460	Organizational Communication	3

Group B - Specialization Electives - 9 credit hours

choose three from among the following, at least one at 300-400 level:

CM	105	Public Speaking	3
CM	221	Interpersonal Communication	3
CM	252	History of Communication	3
CM	301	Group Communication	3
CM	379	Persuasion	3
CM	465	Intercultural Communication	3
CM	495	Communication Theory	3

D. Video Design and Production Specialization: 39-40 credit hours (including core requirements)

Allows students to learn background theory while developing conceptual and technological skills used in the production of programs both inside the studio and on location. Focus on information gathering, concept development, writing, production aesthetics, ethics, shooting methods, and editing decisions. Applications to documentary, art, drama, news, corporate sports, and other production types.

Requirements: Hrs.

		Communication Core Plus	13
		<i>SPECIALIZATION: 26-27 credit hours</i>	
		Group A - Specialization Core - 15 credit hours	
CM	251	Audio Production I	3
CM	255	Television Production I	3
CM	353	Communication Law & Ethics	3
CM	354	Video Field Production	3
		and <i>one</i> of the following:	3
CM	200	Electronic Media Writing	
CM	361	Script Writing for Video, Film and Radio	

Group B - Specialization Electives 3-4 credit hours *one* course from any of the following:

CM	315	Performance	3
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CM	356	Video Graphics	3
CM	357	Corporate Video	3
CM	358	Television News	4
CM	459	Special Topics - Video Production	3

Group C - 8 credit hours - one of the following two-course sequences

CM	452	Video Documentaries I	4
CM	462	Video Documentaries II	4
		or	
CM	454	Video Drama I	4
CM	464	Video Drama II	4

Minor Requirements: A minor in Communication requires a minimum of 18 hours of courses with 9 being at 300 level or above. Advising with the department is strongly recommended.

CM 101. Fundamentals of Communication **A**

An introduction to the study of human communication as it occurs within interpersonal, public, group, organizational, and mass communication settings. Provides a broad, general survey of literature relevant to human communication. 3 hours credit

CM 102. Mass Media and Society **B**

An introductory course dealing, humanistically, with the process and effects of mass communication. Topics include 1) a description of the industries of mass communication based on their mutual dependence, 2) a case study approach to the technology and regulation of mass communication, 3) related media industries -- advertising, public relations, news services; and 4) the influence and results of mass communication -- studying mass media research. An important consideration would be the ethical standards of the media. *Prerequisite* CM 101. 3 hours credit

CM 105. Public Speaking **A**

Basic principles involved in public communication. Emphasis on the techniques involved in audience analysis, critical thinking and argumentation, listening, ethics, and message structure and delivery for public presentations. 3 hours credit

CM 120. WCVF/WNYF/ACA/AERho Operations **A**

Extracurricular participation in the staffing of the college's radio station, WCVF, television station WNYF, or department societies. 0 hours credit

CM 155. Rhetoric of Vision and Sound **A**

A foundational course for communication students. Grounds students in close attention to sight and sound and in basics of perceptual processes. Explores the ways in which media code images and sound in order to communicate ideas and emotions. 3 hours credit

CM 199. Communication **B**

A course designed to introduce new majors to the department, and faculty, and to suggest areas of study and activity. 1 hour credit

CM 200. Electronic Media **A**

Writing for the ear and writing in relation to visual images. Weekly writing exercises and discussions relative to audio and video news, documentary, sports, advertising and other non-fiction formats. *Prerequisite* EN 100. 3 hours credit

CM 201. Rhetoric and Criticism **A**

Study of human discourse (oral and mediated) as a rhetorical communication process from a historical perspective. Developments in rhetorical and western intellectual thought will be examined for their influence and contributions to rhetorical theory. The main goal of the course is to develop

knowledge of and ability to apply rhetorical thought in the analysis of messages. *Prerequisite* CM 101. 3 hours credit

CM 205. Advanced Public**B**

Advanced topics and applications in public speaking. Knowledge of techniques for audience analysis, critical thinking, argumentation, and message structure and delivery is assumed. *prerequisite* CM 101,102, and HC core or permission of instructor. 3 hours credit

CM 221. Interpersonal Communication**A**

Focuses on the description and explanation of relationship development. Emphasis on the analysis of communicative behavior and its role in interpersonal relations. Examines the functions of verbal and nonverbal messages, the characteristics of communicative processes, and the link between communication and various social and psychological variables. The course also uses the laboratory method for learning communication skills. *Prerequisite* CM 101. 3 hours credit

CM 251. Audio Production I**A**

An introduction to audio production. equipment and its operation; listening skills; sound design; developing an ability to understand and use sound effectively and persuasive techniques ethically. Principles of writing for the ear examined and practiced; editing, announcing, and interviewing introduced. *Prerequisite/Corequisite* CM 155. 3 hours credit

CM 252. History of Communication**B**

See HY 252 for course description. 3 hours credit

CM 255. Television Production I. A

Basic skills in studio production techniques lighting, camera work, shading, film-chain operation, audio setup and monitoring, videotape recorder operation, floor management, and technical directing. For final projects students work in teams to produce and direct their own programs. *Prerequisite/Corequisite* CM 155. 3 hours credit

CM 295. Communication Research and Survey Methods**B**

Study of both qualitative and quantitative approaches to inquiry and their applications in theoretic and applied communication research. Emphasis will be devoted to basic statistical analysis and interview and survey methods as they apply to evaluating communication practices and assessing communication needs. *Prerequisite* CM 101. 3 hours credit

CM 361. Group Communication**A**

Communication and its relationship to small group decision-making re-analyzed. Includes discussions of group process, decision-making techniques, leadership, conflict resolution, meeting organization, and public presentation. Emphasizes the application and development of skills for building cohesive groups, organizing and carrying out group tasks effectively, and diagnosing and correcting problems in group member relations. *prerequisites* CM 221 or permission of instructor. 3 hours credit

CM 310. Verbal Communication**C**

This course is designed to provide an understanding of the relationship between language and communication, or of the role language plays in communication. Language will be viewed from the following three perspectives in the course (a) language is a system of symbols, (b) there is an interaction between language and thought, and (c) language embodies action. *Prerequisite* CM 101,102, and HC core or permission of instructor. 3 hours credit

CM 311. Nonverbal Communication**C**

An advanced course examining theoretical and functional perspectives on the various aspects of nonverbals in human communication. Stresses the contribution of nonverbals to meaning, and to the concurrent verbal transaction. *prerequisite* CM 101,201, and HC core or permission of instructor. 3 hours credit

CM 320. WCVF/WNYF/ACA/**A**

AERho Management

Extracurricular participation as a manager on the elected board of directors of the college's radio station, television station, or an elected officer of a department society. *Prerequisite* Election to management position. *0 hours credit*

CM 325. Performance for Electronic Media**C**

A course designed to aid people who plan to appear on television or radio as artistic performers or presenters of information or persuasion. Emphasis will be placed on appearance, vocal analysis, script reading and movement. Practical experience will be gained on the college's television and radio studios. *prerequisite* SH 201 recommended. *3 hours credit*

CM 350. Telecommunication Technology**C**

Examination of the historical, physical, economic and regulatory status of communications technologies such as cable television, satellites, telephone, and computer communications. Discussion of general communication systems theory of video, audio and data communication including analog and digital signal transmission. *Prerequisite* CM 102. *3 hours credit*

CM 351. Intermediate Radio Production**A**

Refining skills and techniques already learned in CM 251; heavier emphasis on announcing and interviewing; understanding the ethical and legal perspectives of broadcast material; introduction to the design, scripting, production and promotion of programs. *Prerequisite* CM 251. *3 hours credit*

CM 353. Communication Law and Ethics**A**

Assessment of the regulatory framework and major legal issues of the mass media. Examination of ethical issues in the media as well as principles and concepts of ethical theory. *Prerequisite* CM 102. *3 hours credit*

CM 354. Video Field Production**A**

Basic skills and techniques for shooting video outside the studio in ENG and EFP configurations, and for editing on control track video editing systems. Camera, lighting, sound and editing skills applicable to news, documentary, narrative, and art or music video. *Prerequisites* CM 255. *3 credit hours*

CM 356. Video Graphics**C**

A basic course in graphic design for the non-art major. Provides conceptual information about the foundations of graphic design, specifically applied to video's particular limitations and requirements such as aspect ratio, contrast ratio, color theory, and typography. Students complete projects using traditional, electronic, and computer techniques. Lab required. *Prerequisite* CM 255. *3 hours credit*

CM 357. Corporate Video**C**

Design and production of internal communications, promotional programs and training utilizing video in the corporate setting. Instructional Systems Design approach to training. *prerequisite* CM 354 or permission of instructor. *3 hours credit*

CM 358. Television News**B**

Electronic news gathering and studio news techniques in the context of a weekly news program. Legal and ethical issues in news gathering. *Prerequisite* CM 354. *4 hours credit*

CM 359. Special Topics in Media**D**

In-depth investigation of some area of media not fully covered in other courses. *Prerequisites* Permission of instructor. *1-3 hours credit*

CM 361. Script Writing for Video, Film and Radio**B**

Techniques of developing concepts, treatments, outlines and scripts for dramatic fictions in the media of video, film and radio. Emphasis on traditional, modern and post-modern dramatic structure with units on character, dialogue, setting, visual narration, etc. prerequisite CM 251 or CM 255 or creative writing or theatre production course. 3 hours credit

CM 375. Media Criticism**C**

Study of selected theories and methods of criticism relevant to the evaluation of mediated message genres from a communication perspective. Emphasis will be placed on applying critical perspectives to the criticism of print and electronic media especially in film, radio and TV. prerequisite CM 255, CM 201 or permission of instructor 3 hours credit

CM 379. Persuasion**B**

Examination of a wide body of humanistic, and social scientific literature concerning persuasion and persuasive techniques. Emphasizes evaluation and potential application of persuasion theory in communicative transactions. prerequisite CM 101, 201, and HC core. 3 hours credit

**CM 385. Comparative Broadcast-
ing Systems****B**

See HY 385 for course description. 3 hours credit

CM 395. Radio News**C**

Theory and practice of radio journalism including writing and reporting news and journalism law and ethics. Students will produce weekly radio newscasts during the second half of the semester. Prerequisite CM 351. 4 hours credit

**CM 400. Broadcast Station
Operation****C**

Analysis of the various techniques and problems involved in management of radio and television stations. Topics examined include general theories of management, audience research, programming, sales, business and station ethics Prerequisite CM 102. 3 hours credit

**CM 441. Multitrack Radio
Production****C**

Examination and practice of advanced sound design, production with ancillary equipment, and multitrack recording techniques for broadcast applications Prerequisite 6 hours of upper level radio production and permission of instructor. 3 hours credit

CM 451. Radio Documentaries ~**C**

Exploration and execution of steps involved in writing and producing a documentary preliminary research, program concept, aesthetic and ethical issues, target audience, outline, research, interviews, treatment, script, and production Prerequisite CM 352. 4 hours credit

CM 452. Video Documentaries I**B**

To be taken as first of two semester sequence continuing with CM 462 or as stand alone critical course. Analysis, research and planning of documentaries. Study of examples of key video and film documentary types with emphasis on makers point of view concept, structure, development, ethical issues. Research and planning for projected documentaries. Funding strategies. Demonstrations of shooting techniques. prerequisite CM 354 plus 9 hours from Video specialization core 4 hours credit

CM 453. Video Art I Criticism**D**

Consideration of video as an art medium from three perspectives 1) survey the development of the field from the mid-sixties through the present; 2) examine the range of concepts and aesthetic concerns expressed in media art; 3) examine and apply concepts and techniques of media art criticism and analysis as written and oral forms. Students will develop their understanding of the field through screenings, discussions, readings, and presentations by the instructor and guest artists. Students will develop their critical skills through written and oral critique. prerequisite CM 354 plus 9 hours from Video specialization core 4 hours credit

CM 454. Video Drama I**C**

A production oriented critical course. Script analysis. Analysis of films and videos representing several dramatic genres from both traditional critical and production analysis points of view. Unit on directing actors. Script research, visualization and planning for future productions. prerequisite CM 354 plus 9 hours from Video specialization core *4 hours credit*

CM 456. Radio Programming and Production

C

Theory and practice of programming and promoting a radio station formats, sources, techniques; and development and production of a weekly radio series. *Prerequisites* CM 351 or permission of instructor. 4 hours credit

CM 457. Television Apprenticeship

A

Provides a variety of experience in both studio and field production. Simulation of actual work situation with weekly assignments. Requires commitment to responsibilities and substantial production skills. prerequisite CM 255 and permission of instructor. *13 hours credit* Note May be repeated for a total of 3 hours credit applied towards graduation. No more than 15 credits total of CM 480 and CM 457 may be used towards graduation.

CM 458. Special Topics in Human Communication

D

An in-depth seminar on an advanced topic in human communication. Topic announced in *Course Offerings Bulletin* each semester. prerequisites As specified by instructor. *1-3 hours credit*

CM 459. Special Topics in Media Production

D

Individual and/or small group learning; experience in-depth of some area of radio television production not fully covered in other courses. Special attention to innovative and creative utilization of production techniques. prerequisites Permission of instructor. *1-3 hours credit*

CM 460. Organizational Communication

B

An advanced study of communication patterns in social organizations. In particular, communication environments within business and industry are analyzed. Students are given the opportunity to learn and apply procedures commonly used to evaluate and improve communication in organizations. prerequisites CM 101, 102, and HC core or permission of instructor *3 hours credit*

CM 461. Communication Training and Development

C

Will review the content and methods of communication training in organizations. Attention will be devoted to methods for assessing training needs, training design, utilization of media, and training evaluation. Students will be required to develop and deliver training session using the instructional systems design approach. prerequisite CM 101, 201, and Human Communication specialization core, or permission of instructor. 3 hours credit

CM 462. Video Documentaries II

B

Production, postproduction and distribution of video documentaries. Small teams produce the documentaries they planned in CM 452. Emphasis on perfecting either montage or observational shooting techniques, on structuring before and through editing, and in achieving a development with a spine, related segments, climax, visual coherence and multi-layered sound visual relationships. prerequisites CM 452 and Group B video elective. *4 hours credit*

CM 463. Video Art II Production

D

An advanced production workshop environment affording students the opportunity to explore personal vision and aesthetic concepts through video as an art medium. Emphasis on extending previous production and analysis experience into the realm of personal expression. Course work to include on-going screenings of works in progress, intensive critique, and advanced instruction in field, studio, and post-production techniques. prerequisite CM 453 and Group B video elective *4 hours credit*

CM 464. Video Drama II**C**

Production, editing and distribution of video dramas planned in CM 454. Emphasis on single camera, multiple take methods. Students all direct brief episodes and all work in one or more production roles for a longer video drama. prerequisite CM 454 and Group "B" video. elective 4 hours credit

CM 465. Intercultural Communication**B**

An advanced course dealing with the problems and processes of communication in various domestic and international settings. Emphasis on personal aspect of communication, that is, what happens when people from different cultures interact face-to-face. Attention given to the improvement of intercultural communication skills. prerequisite CM 101, 201, and Human Communication specialization core, or permission of instructor. 3 hours credit

CM 475. Communication/Studio Supervision**A**

Advanced students are given opportunities to demonstrate knowledge of and practice application of skills in educational setting or specific subjects. prerequisites Appropriate course work and permission of instructor. 2-3 hours credit

CM 480. Communication Internship**A**

Participation in off-campus professional, subject-related experience. Student submits learning contract proposal prepared in consultation with agency representative and with faculty sponsor describing experience, its relationship to course of study, and how it will be monitored and evaluated. Internships are graded satisfactory/unsatisfactory. Proposal must be approved in advance by internship coordinator in communication department. Appropriate courses in specialization are required. prerequisites Appropriate course work, minimum GPA of 2.5 overall, permission of internship coordinator and submission of Experiential Learning Contract. 3-15 hours credit

Note No more than 15 credits total of CM 480 and CM 457 may be used towards graduation.

CM 490. Independent Study**A**

Approved study of particular aspect of communication, or participation in approved project not otherwise available through course work. prerequisite Permission of communication faculty member. 3 hours credit

CM 495. Communication Theory**C**

Provides a comprehensive investigation into various theoretical and metatheoretical perspectives which currently direct theory building and research in communication. Emphasis on critical thinking as literature in the field is investigated and evaluated in light of accepted scientific criteria. prerequisite CM 101, 201, and HC core, or permission of instructor. 3 hours credit

COMPUTER SCIENCE

Office: 223 Fenton Hall

James E. McKenna, *Chairperson*

The computer science program, administered by the Department of Mathematics and Computer Science, offers two study options for majors: the Mathematical Sciences Track (Option I) and the Business-Management Track (Option II). Both options contain a common core of fundamental, courses in the science of computing, with equal emphasis on theory and practice. Further courses in Option I prepare graduates for careers in the scientific and technological sectors as well as for graduate study in the computing oriented branches of the mathematical sciences. Option II, on the other hand, is geared to commercial and administrative applications. Computing equipment available to students in the program includes minicomputers in a dedicated Computer Science Laboratory and the mainframe and microcomputers of the college Computing Center. Students are also offered ample opportunity to gain industry-related experience through a comprehensive internship program; companies that have participated in the program in recent years include Unisys Corp., Cunningham Information Systems of Connecticut and AL Tech Specialty Steel of New York. Maytum scholarships are available to students in this major.

Students who wish to declare a major in computer science must consult with the department chairperson. Admission to the program will be based on the student's grade point average and performance in mathematics and computer science courses.

Minor in Computer Science: 2324 hours distributed as follows:

	<i>Hrs.</i>
MA 120 or MA 122	3 or 4
CS 260, 261, 290, 360	14

Plus two additional 3-credit courses in computer science as advised, with at least one at the 330 level or higher. Neither CS 104 nor CS 105 may be used to satisfy this requirement.

Requirements for the B.S. Degree in Computer and Information Science

Option I: Mathematical Sciences Track

Course Requirements in Computer Science (32 hours)

CS 260-261	Programming I & II	8
CS 290	Programming Languages I	3
CS 360-361	Computer System Organization I & II	6
CS 370	Data Structures	3
CS 460	Programming Languages II	3
CS 380	Algorithms	3
	Plus two additional courses in computer science at the 330 level or higher as advised	6
		32

Course Requirements in Mathematics (22-23 hours):

MA 122-123	University Calculus I & II	8
MA 210	Foundations of Discrete Mathematics	4
MA 231	Linear Algebra with Applications	4

Plus two additional courses from:		6 or 7
MA 325	Intro. to Numerical Analysis	
MA 337	Intro. to Combinatorial	

	Mathematics	
MA 350	Applied Statistics I	
MA 351	Applied Statistics II	
MA 359	Probability Models in Operations Research	
MA 375	Deterministic Models in Operations Research	
MA 440	Graph Theory with Applications	
PH 326	Digital Electronics and PH 328 Lab)	
		22 or 23

Option II: Business-Management Track

*Course Requirements in Computer**Science (35 hours):*

CS 260-261	Programming I & II	8
CS 265	Business Programming I	3
CS 270	Business Programming II	3
CS 290	Programming Languages I	3
CS 360	Computer System Organization I	3
CS 370	Data Structures	3
CS 430	Software Design and Development	3
	Plus three additional courses in com- puter science at the 330 level or higher as advised.	9
		35

Course Requirements in Mathematics (10-12 hours):

MA 120-121	Survey of Calculus I & II or	6
MA 122-123	University Calculus I & II	8
MA 210	Foundations of Discrete Mathematics 10-12	4

Course Requirements in Business Administration and Economics (21 hours):

AC 201-202	Principles of Accounting I & II	6
EC 202	Principles of Micro-economics	3
BA 200	Fundamentals of Statistics for Business and Economics (also EC 200)	3
BA 321	Management & Organizational Behavior	3
	Plus two courses (6 hours) from:	6
EC 300	Statistics for Economics and Business	
EC 350	Managerial Economics	
BA 322	Operations and Production Management	
BA 324	Management Informa- tion Systems I	
BA 420*	Operations Research & Decision Analysis	
BA 424	Production Management	
		21

EC 420 or MA 375 may be substituted for this course.
In addition to the above, EC 201 is strongly recommended.

Computer science majors may not use a mathematics course to satisfy Part II.A of the General College Program.

CS 104. Introduction to Microcomputers

A

(Not open to students who have completed CS 260 or its equivalent.) Introduction to microcomputers; disk operating system (DOS); selected applications from spreadsheets and database management systems; analysis of a variety of problems, and design and implementation of their solutions using commercially available software.

prerequisite Three units of high school mathematics.3 hours credit

CS 105. Introduction to Computing

A

(Not open to students who have taken CS 125.) First course in computing. Basic understanding of computers, programming, and the associated vocabulary. Fundamental experience in problem solving and algorithm construction. Coding experience in a highlevel computer language such as BASIC. Survey of computer applications. prerequisiteThree units of high school mathematics3 hours credit

CS 125. FORTRAN Programming

A

(Not open to computer science majors with junior standing.) An introductory level course in computer science using the programming language FORTRAN. Topics will include arithmetic operations, declaration statements, control statements, looping, input and output, single and double subscripted arrays, functions, and subroutines. Applications to engineering, science, and mathematics. *Prerequisite* MA 122 or equivalent. 3 hours credit

CS 205-. APL with Applications

D

Comprehensive study of interactive APL programming language. Primitive scalar monadic and dyadic functions, operators, and primitive mixed functions with emphasis on vectors, matrices, and extension to higher order arrays. Function definition, editing, debugging. Workspace management. Applications to business, finance, engineering, science, and mathematics.

prerequisite Three units of high school mathematics.3 hours credit

CS 260. Programming I

A

A first course with emphasis on good programming techniques including stepwise refinement, modularization, documentation and debugging; standard elementary data types and control structures; arrays; user-defined types; procedures and functions; records; input/output.

prerequisite Three units of high school mathematics.4 hours credit

CS 261. Programming II

A

An introduction to data structures and their implementation. Topics include record, set, file and pointer data types; implementation and applications of stacks, queues, linked lists and binary trees; a thorough study of recursion and recursive programming techniques. *Prerequisite* CS 260. 4 hours credit

CS 265. Business Programming I

A

An introduction to the use of the computer in business applications. File processing and updating, sorting and merging, data management and reporting, use of external storage, input-output techniques. Elements of structured programming using the COBOL language. *Prerequisite* CS 260. 3 hours credit

CS 270. Business Programming II

B

This course will cover business applications using the COBOL and RPG III programming languages. Topics will include processing indexed and relative file organizations; external subroutines; multi-dimensional tables; advanced Report Writer concepts. *Prerequisite* CS 265. 3 hours credit

CS 290. Programming Languages I

A

Survey of languages for nonconventional programming paradigms such as logic programming and object-oriented programming, and of languages for special applications such as artificial

intelligence, list processing and string processing. Programming in selected languages such as Lisp, Prolog, Snobol, Small talk, FP. *Prerequisite* CS 261. 3 hours credit

CS 299. Computer Science Orientation**B**

This is a one-week course intended for computer science majors transferring from another college or university. It is meant to familiarize students with the department's instructional computing facilities. *0 hours credit*

CS 300. Internship in Computer Science**A**

Participation in an approved professional experience in the area of computer science. Students must submit a proposal describing the work experience, its relationship to subject matter in computer science, and how it will be monitored and evaluated. Grading will be on an S/U basis. *Prerequisites* Permission of chairperson. *3-12 hours credit*

CS 305. Computer Laboratory Assistantship**A**

This non-credit course is intended for those students interested in performing computer-related services for the Computer Center. Duties include proctoring in computing laboratories; resolving equipment malfunctions; assisting with functional operations. Assistants work Under the direction of the coordinator of Academic User Services. Grading is on an S/U basis. *Prerequisite* Permission of chairperson. *0 hours credit*

CS 330. Introduction to C and UNIX**B**

An introduction to the UNIX operating system. Topics include UNIX file system editors; shell programming; UNIX system programming; the C programming language. *prerequisites* CS 261 and 360. 3 hours credit

CS 350. Database Management**B**

Goals of DBMS. Hierarchical, network, and relational models and their implementation. Data normalization. Data description languages. Query facilities. File organization and security. Data integrity and reliability. *prerequisite* CS 261 and MA 210. 3 hours credit

CS 360. Computer System Organization I**A**

Computer architecture, internal representation of data, computer arithmetic, and addressing techniques. Machine language and assembly language programming. Subprograms, recursion, and stacks. Study of an actual minicomputer or microprocessor system. *prerequisite* CS 260. 3 hours credit

CS 361. Computer System Organization II**B**

Assembly language programming with macros. Input/output programming and interrupts. Data representation, encoding, and decoding. Computer architecture and microprogramming. Introduction to digital logic design. Study of actual minicomputer and microprocessor systems. *Prerequisite* CS 261 and 360. 3 hours credit

CS 370. Data Structures**A**

Concepts of data representation and manipulation, with an emphasis on the "abstract data type" concept, and the relation between data structures and algorithms. Specific topics include lists, trees, sets, graphs and storage management; particular attention given to searching methods and applications. *prerequisites* CS 261 and MA 210, CS 360 is strongly recommended. 3 hours credit

CS 380. Algorithms**B**

An introduction to the design and analysis of algorithms time and space complexity, verification of correctness, design strategies including divide and conquer, dynamic programming, branch and bound, greedy methods. Specific examples drawn from sorting, graph problems, matrix and polynomial arithmetic. *Prerequisites* CS 261 and MA 210. 3 hours credit

CS 390. Introduction to Artificial Intelligence**B**

A study of how to program computers to behave in ways normally attributed to intelligence when observed in humans. Topics will be chosen from the nature of AI; knowledge representation; logic, deduction and Prolog; AI and LISP; vision; natural language understanding; search; game playing;

inference; memory organization; expert systems and OPS5; planning; learning. Topics will be illustrated by programs from the literature and programming projects.

prerequisites CS 290 and MA 210. 3 hours credit

CS 400. Directed Study of Selected Topics

A

Independent study of a selected list of readings approved by a faculty advisor. *Prerequisite* Permission of department. 16 hours credit

CS 430. Software Design and Development

B

Top-down design and development. Code reading, testing, and correctness. Milestones and estimating. Programming teams and walk-throughs. Organization, management, and development of a large-scale software project. *Prerequisite* CS 370 and MA 210. 3 hours credit

CS 460. Programming Languages II

B

Syntax and semantics of programming languages. Data types and structures; control structures and data flow. Compilation versus interpretation and the run-time environment. Lexical analysis and parsing. *Prerequisites* MA 210, CS 290 and 360. 3 hours credit

CS 470. Compiler Construction

D

Design and construction of a compiler for a typical block-structured algebraic language. Topics include lexical scanning, parsing, symbol table management, error detection and recovery, run-time storage organization, code generation, code optimization. An actual implementation project will be an integral part of the course. *Prerequisites* CS 370 and 460. 3 hours credit

CS 480. Operating System

B

Examines concepts and designs of modern real time, general purpose operating systems. Process scheduling, memory, and disk resource allocation, multiprocessor systems and input/output control. A case study will be made of a large multiprogramming, multiprocessor operating system. *Prerequisites* CS 361 and 370. 3 hours credit

CS 485. Introduction to Data Communications

B

Introduction to the basic mechanisms used within modern data communication software systems. Topics include error detection and correction techniques, asynchronous communication systems, synchronous communication systems, network architectures (including local area networks), and data link control protocols. Students will be required to design and program several communication systems using a high level programming language. *Prerequisite* CS 480. 3 hours credit

CS 490. Theory of Computation

D

Finite automata and regular expressions; pushdown automata and context free grammars; pumping arguments; closure properties; decision algorithms; applications to parsing algorithms; Turing machines; computability and decidability; the halting problem; elementary complexity theory. *prerequisites* CS 261 and MA 210. 3 hours credit

(Earth Sciences, see Geosciences, pg. 95)

ECONOMICS

Office: E336 Thompson Hall,
John A. Hansen, *Chairperson*

Economics provides an understanding of how economic systems function and offers insight into the nature of real-world economic events and problems. The study of economics provides the basic knowledge necessary to analyze and understand the complex world in which we live and work. The department offers a broad range of courses in such fields as money, banking, and finance; business economics; international and comparative economics; quantitative economics; public, urban, and regional economics; organization and control of industry; economic history; and economic policy.

Career Opportunities

The study of economics teaches the student a way of thinking that is clear, concise and rigorous and encompasses a wide range of human experiences. Therefore, it has come to be widely recognized as a solid preparation for many professional careers in business, finance, and government. Those courses in economics that emphasize the relevance of economic principles to areas in business, finance, quantitative and computer applications, public administration or industrial relations, provide the student with an excellent background for a variety of jobs and professions. The study of economics also provides an excellent preparation for graduate study in such professional areas as law, industrial relations, and business and public administration.

Economics As Preparation For Master of Business Administration (M.B.A.). Most graduate schools of business prefer their students to have a broad, liberal arts background. Since economics is more closely related to business administration than many other liberal arts areas, it is an ideal preparation for study toward the Master of Business Administration degree. According to a study conducted by the American Assembly of Collegiate Schools of Business, graduate business school professors stress economics as the most important undergraduate preparation.

Economics Major As Pre-Law Study. There are no precisely prescribed pre-law programs or undergraduate courses. However, according to the *Chronicle of Higher Education*, many law schools believe that economics is one of the best preparations for the study of law. It is particularly helpful because it deals with human experience in a variety of fields of study; it develops the student's analytical skills in problem solving; and it provides the basis for analysis of many legal problems.

Major, Minor In Economics and Certificate In International Economic Studies, and Specialization in Economic Studies for Social Studies Students in Secondary Education. The department offers a major in Economics (B.A. degree) with fields in Business Economics; Money; Banking and Finance; Quantitative Analysis with Computer Applications; Economic Policy; and Political Economy. Alternatively, with consultation and approval of the faculty advisor, the student may develop his/her own field of specialization. Depending on the field of specialization, 39 to 45 credit hours of course work are required for a major. The department also offers a minor in economics which requires 21 hours in economics.

As an option to students majoring in economics, the department issues a letter certifying the completion of International Economic Studies to those who complete 15 hours of designated course work.

Additionally, the economics department offers a specialization in Economic Studies to social studies-secondary education students who wish to teach economics in high school.

The department strongly recommends that economics majors take additional courses in accounting, computer science and calculus.

Requirements for the B.A. Degree in Economics

1. Students majoring in economics must take 24 semester hours in basic economics courses. They are:

Hrs.

EC 200	Fundamentals of Statistics for Economics and Business	3
EC 201	Principles of Macroeconomics	3
EC 202	Principles of Microeconomics	3
EC 300	Statistics for Economics and Business	3
EC 305	Intermediate Microeconomic Theory	3
EC 310	Intermediate Macroeconomic Theory	3
EC 370	Evolution of Economic Thought	3
EC 450	Senior Seminar	3

2. Elective in Economics at 300/400 level
3. In addition to the courses described in 1 and 2, above, each student must select a field (specialization) in some area of economics. Students must complete courses in each field distributed as follows:

A. Designed Field

With consultation and approval of the faculty advisor, the student may design a field of study which includes six 300-400 level courses, of which, at least three must be economics courses.

Designed Fields include, but are not limited to, the following: General Economics, Health Economics, Managerial Economics, Human Resources, International Economics, Environmental and Natural Resource Economics.

B. Business Economics

		Hrs.
EC 315	Money, Banking, and Monetary Economics	3
EC 405	Industrial Organization	3
CS 104	Introduction to Microcom- puter (or comparable com- puter course)	3

and one of the following courses:

EC 320	International Economics	3
EC 325	Labor Economics	3
EC 340	Urban & Regional Economics	3
EC 355	Labor and Industrial Relations	3
EC 360	Health Care Economics	3
EC 380	Environmental and Natural Resource Economics	3
EC 400	Basic Econometrics and Business Applications	3
EC 425	Financial Markets and Institutions	3

and two of the following courses:

BA 310	Legal Environment of Business	3
BA 315*	Principles of Business Finance	3
BA 321	Management & Organiza- tional Behavior	3
EC/BA 420	Operations Research and Decision Analysis	3

C. Money, Banking, and Finance

EC 315	Money, Banking, and	3
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EC 320	Monetary Economics International Trade and Finance	3
EC 425	Financial Markets & Institutions	3
BA 315*	Principles of Business Finance	3
CS 104	Introduction to Microcom- puter (or comparable com- puter course)	

and one of the following courses:

BA 316	Investment Analysis	3
BA 417	Financial Management	3

D. Quantitative Analysis and Computer Applications

EC 350	Managerial Economics	3
EC 400	Econometrics	3
MA 120	Survey of Calculus I or	3
MA 122	University Calculus 1	4

and one course from:

EC/BA 420	Operations Research and Decision Analysis	3
BA 324	Management Information Systems I	3
BA 424	Production Management and at least 9 hours from computer science, of which 6 hours must be above the 100 level.	3

E. Economic Policy

Four of the following courses:

EC 315	Money, Banking, and Mone- etary Economics	3
EC 320	International Trade & Finance	3
EC 325	Labor Economics	3
EC 330	Public Finance	3
EC 335	Economic Development	3
EC 340	Urban and Regional Economics	3
EC 360	Health Care Economics	3
EC 380	Environmental and Natural Resource Economics	3
EC 405	Industrial Organization	3

two of the following courses:

PS 341	Political Economy of Development	3
PS 380	Policy Evaluation	3
PS 381	Social Welfare Systems	3
PS 388	U.S. Political Economy	3
PS 389	Topics in Public Policy	3

F. Political Economy

Three of the following courses:

EC 320	International Trade and Finance	3
EC 325	Labor Economics	3
EC 330	Public Finance	3

EC 335	Economic Development	3
EC 345	Comparative Economic Systems	3

and *three* of the following courses:

HY 320	Women and Work	3
FIY 321	Urban Society in the Western World	3
PL 338	Marxist Thought	3
PS 341	Political Economy of Development	3
PS 355	International Political Economy	3
PS 449	Directed Study: Political Economy	3
SO 322	Work and Society	3

*These courses have additional prerequisites.

The economics department participates in the Cooperative Agriculture and Cooperative Engineering programs. Refer to descriptions of these programs on pages 46 and 82, respectively.

Requirements for a Minor in Economics

Twenty-one hours in economics are required for a minor. They are:

		Hrs.
EC 201	Principles of Macroeconomics	3
EC 202	Principles of Microeconomics	3
EC 305	Intermediate Microeconomic Theory	
	or	3
EC 350	Managerial Economics	
EC 310	Intermediate Macroeconomic Theory	
	or	3

EC 315 Money, Banking and Monetary Economics and 9 additional hours of economics above the 200 level.

International Economic Studies

As an option to students majoring in economics, the department awards a certificate documenting the completion of International Economic Studies to economics majors who complete the following 15 hours of course work:

Two of the following courses:

EC 320	International Trade and Finance	3
EC 345	Comparative Economic Systems	3
EC 335	Economic Development	3

and 9 hours in foreign area study and/or international/comparative study. A maximum of 6 hours of a foreign language may be counted for the International Economic Studies option.

Requirements for a Specialization in Economic Studies - Secondary Education

This option is recommended for social studies-secondary education students who are interested in teaching economics in high school. The following is a description of the program requirements:

Social Studies Courses: Introductory

HY 105	U.S. History to 1877	3
HY 106	U.S. History Since 1877	3
HY 115	Early Western Civilization	3
HY 116	Modern Western Civilization	3

PS 120	Intro. to American Politics or	3
PS 150	U.S. and World Affairs	
SO 116	Introductory Sociology or	3
AN 115	Introductory Anthropology	
EC 201	Principles of Macroeconomics	3
EC 202	Principles of Microeconomics	3

Social Studies Courses: Advanced (300-400 level)

PS 324	President and Congress or	3
PS 370	American Constitutional Law or	3
PS 371	Civil Rights & Liberties Plus a political science course in international studies, and an elective course in minority studies: SO 36, AN 321, AN 322 or other courses as advised.	6
	And 9 hours in history	9

(at least one course in non-western areas: Asia, Africa, Latin America, Middle East, and another in international studies)

Plus an option in either General Social Studies or Economic Studies:

General Social Studies Option

9 hours in history, political science, sociology, or anthropology (all courses must be 300 level or above with at least one course in non-Western areas: Asia, Africa, Latin America, Middle East, and another in international studies)

51

Economic Studies Option

(Recommended for students who have an interest in teaching economics in high school in addition to other social studies subjects.)

EC 305	Intermediate Microeconomic Theory	3
EC 310	Intermediate Macroeconomic Theory	3
	And 9 hours of economics above the 200 level.	9
		57

Professional Education:

ED 101	Freshmen Field Experience	0
ED 224	Adolescent Development	3
ED 250	Intro. to the Exceptional Learner	3
ED 305	Multicultural Education	3
ED 349	Educational Psychology	3
ED 419	Secondary School Methods	3
ED 430	Student Teaching-Secondary School	15
		30
Total:		81 or 87 hours

EC 101. Introductory Economics**A**

An introductory study of the workings of economic society. Provides an overview of the conditions and problems of the American and other economic systems. Encompasses both microeconomics (e.g., supply and demand, cost and profit, competition and monopoly) and macroeconomics (e.g.,

unemployment and inflation, fiscal and monetary policies). Emphasis is on basic economic concepts, institutions, and broad historical sweep. Not open to students who have completed EC 201 or 202. 3 hours credit

EC/BA 200. Fundamentals of Statistics for Economics and Business

A

An introductory study of statistical methods as applied to economic and business problems. Topics covered include frequency distributions, measures of central tendency, measures of dispersion, probability, probability distributions, sampling distributions, estimation, statistical inference, and simple linear regression. Emphasis on the use and abuse of statistics. *Prerequisite* MA 108 or 120. 3 hours credit

EC 201. Principles of Macro-economics

A

Study of the organization and functioning of the contemporary American economic system with emphasis on the twin problems of unemployment and inflation. Topics covered include aggregate income and employment, money and banking, monetary and fiscal policies, and international trade and finance. *prerequisite* Sophomore standing, or permission of the department. A high school level algebra course is recommended. 3 hours credit

EC 202. Principles of

A

Study of the organization and functioning of the contemporary American economic system with emphasis on the problems of resource allocation. Topics covered include supply and demand, elasticity, price and output determination in various market situations, competition and public policy, income distribution, and alternative economic systems. *prerequisite* Sophomore standing or permission of the department. A high school level algebra course is recommended. 3 hours credit

EC 300. Statistics for Economics and Business

A

Continuation of EC 200. Study of the techniques and tools used in analyzing business and economic data with equal emphasis on interpretation of results. After a review of statistical inference and analysis of variance, concentrates on estimation techniques. Problems of simple and multiple regression, time series analysis forecasting, and index numbers discussed. Selected use of computer software package, e.g., SPSS, MINITAB, MYSTAT required. *Prerequisite* EC 200, For transfer students with little background in algebra, MA 108 is strongly recommended. 3 hours credit

EC 305. Intermediate Microeconomic Theory

B

Analysis of economic behavior of consumers, producers, and markets. Major topics include utility and production theories, market structures (pure competition, monopoly, monopolistic competition, and oligopoly) and theories of factors of production, income distribution, resource allocation, and economic efficiency. *Prerequisites* EC 201,202. One course in calculus is recommended. 3 hours credit

EC 310. Intermediate Macro-economics Theory

B

Study of the overall performance of an economy. A theoretical analysis of the determinants of employment, income, consumption, investment, the role of government, the general price level, wage rates and interest rates. An analysis of the impact of monetary and fiscal policies, within the framework of various contemporary aggregate models of the open economies, on economic activity. *Prerequisites* EC 201,202. 3 hours credit

EC 325. Money, Banking and Monetary Economics

B

Study of money and the financial system. In particular, the operation, functions, structure and regulations of the banking system, and organization and functions of central banking. Special emphasis given to the study of monetary theories, monetary management, and the effectiveness of monetary policy. *Prerequisites* EC 201,202. 3 hours credit

EC 320. International Trade and Finance

B

Study of international economic relations and international finance - determination of trade patterns and competitiveness, tariff and nontariff barriers, economic integration, multinational corporations, exchange rates, balance of payments problems and policies, and international monetary system.
Prerequisites EC 201,202. 3 hours credit

EC 325. Labor Economics**B**

Analysis of labor markets emphasizing the tools of supply and demand. Problems of unemployment, education, job search, job training, sexual and racial discrimination, trade unions, and income distributions are analyzed from theoretical, empirical, and public policy perspectives.
prerequisites EC 201,202. 3 hours credit

EC 330. Public Finance**C**

Analysis of governmental policies involving taxes and expenditures and how effectively these policies attain their objectives. Government investment decision criteria and public choice theory are discussed. *prerequisites* EC 201,202. 3 hours credit

EC 335. Economic Development**C**

Problems of economic growth and development of less developed countries with emphasis on economic and non-economic obstacles to growth and development, financing of development, strategy of development policy, development planning and project evaluation, industrial and agricultural development, and the role of international trade in growth and development.
Prerequisites EC 201,202. 3 hours credit

EC 340. Urban and Regional Economics**D**

Study of the economics of urban and regional development. Emphasis on principles of regional analysis, location theories, population movements, urban base, problems of urban renewal, economics of poverty, transportation, pollution, and housing. *Prerequisite* EC 202. 3 hours credit

EC 345. Comparative Economic Systems**C**

Comparative study of organization, operation and performance of some important economic systems. Emphasis on the sociocultural and political environment, and on the institutional factors explaining the differences in the performance of various systems.
prerequisite Sophomore standing. 3 hours credit

EC 350. Managerial Economics**B**

Microeconomic analysis applicable to the problems of businesses with emphasis on the determination of prices, outputs and inputs. Other topics include demand and cost measurements, forecasting, and cash flow analysis. The course utilizes different constrained optimization and quantitative techniques. *prerequisites* EC 202, MA 120 or 122. One course in calculus is recommended. 3 hours credit

EC 355. Labor and Industrial Relations (also BA 355)**B**

Emphasis on the theoretical bases and development of labor organizations and their interactions with managements in a social, economic, political, and legal context. Topical areas include the process of union organization, certification, bargaining structures, contract administration, and methods of impasse resolution. Current issues are discussed that have an impact upon employees, their organizations, and the public. *Prerequisite* EC 201,202. 3 hours credit

EC 360. Health Care Economics**B**

Application of economic analysis to the health care industry. Emphasis on the demand and supply of health care services, and private and group health insurance (HMO, PPO, Medical Care, Medicaid). Analysis of for-profit and non-profit production of health care services under different market structures. Other topics include problems of allocation of medical care resources and analysis of health care policies. *Prerequisite* EC 201,202. 3 hours credit

EC 370. Evolution of Economic Thought**B**

Study of the historical development of those ideas intended to provide a deeper understanding of present economic realities. Emphasis is placed on fundamental areas such as the economist's methodology, value and distribution theory, free trade, economic growth, and macroeconomics, and how these topics have been addressed by major thinkers in the field of economics.
Prerequisite EC 201,202. 3 hours credit

EC 380. Environmental and Natural Resource Economics **B**

Economic analysis of natural resource and environmental issues and policies. Social cost-benefit analysis, theories of externalities and intertemporal resource allocation and their application to renewable and exhaustible natural resources are emphasized. Topics include pollution control, efficient and equitable resource management, energy issues, ecological and environmental quality, and global sustainability. *Prerequisites* EC 201,202. 3 hours credit

EC 381. Special Topics in Economics **B**

Examination of topics in economic issues, problems, theory and policy not covered in any other course offered by the department. *prerequisite* EC 201,202 or permission of instructor. 3 hours credit

EC 400. Basic Econometrics and Business Applications **C**

Analysis and application of regression covering topics on econometric problems and techniques of estimation (both single and multi-equation models). The science and art of econometric model building and forecasting with its wide application in finance, marketing, banking, and other fields in business and economics are discussed. Use of the computer is an integral part of the course. *Prerequisites* EC 201,202, 300. 3 hours credit

EC 405. Industrial Organization **C** (Formerly Government Regulation of Business)

Study of the sources and consequences of monopoly power in the U.S. economy. Review of monopoly and oligopoly pricing theory and determination of market power. Deals with both the economic definitions and measures of market power and with the legal standard of monopoly; includes study of major court decisions that have shaped antitrust policy; also covers economic regulation as a response to monopoly power. Alternative methods of public utility regulation and their applications to specific industries are considered. *Prerequisite* EC 202. 3 hours credit

EC 420. Operations Research Decision Analysis (also BA 420) **D**

Concerned with 1.) decision criteria when faced with uncertain outcomes; 2.) problem of optimal allocation of resources; 3.) linear programming models, formulation of problems, graphical solution, interpretation of computer programmed solutions, the dual and its implications; and 4. decision models for competition (two person zero sum game), formulation of problems, algebraic and graphical solutions interpretation of results. *prerequisite* EC 200, CS 104 or 105. 3 hours credit

EC 425. Financial Markets and Institutions **B**

Study of the operation of the capital and money markets, determinants and structure of interest rates. Broad analysis of financial intermediaries, and regulation of the financial systems. *Prerequisite* EC 315. 3 hours credit

EC 430. Independent Study **A**

Individualized study under the supervision of a faculty member. *prerequisite* Approval of the instructor. 1-3 hours credit

EC 450-451. Senior Seminar **A**

Application of research and writing skills to the critical analysis of selected broad current economic problems and issues, integrating several areas of study in economics and other disciplines. *prerequisite* Either EC 305 or EC 310. Senior standing or permission of the instructor. 3 hours credit

EC 480-481. Internships

A

Provides students the opportunities to earn credits for professional experience gained through learning-by-doing techniques. prerequisite Permission of instructor. 1-3 *hours credit*

EDUCATION

Office: E268 Thompson Hall

Matthew J. Ludes, *Chairperson*

Gregory F. Harper, *Assistant Chairperson*

The education department offers opportunity for certification in six areas:

- Elementary Education
- Elementary Education/Early Childhood Education Annotation
- Elementary Education/Middle School Extension*
- Secondary Education
- Secondary Education/Middle School Extension*
- Special Education in a cooperative program with the State University College at Buffalo.

* Pending approval.

A noncertification program in Learning and Behavioral Disorders is also offered.

Elementary Education: Preparation to teach Kindergarten through Grade 6. (B.S. in Ed. degree-Certification K-6)

Early Childhood Education: A program with special emphasis on preparing to teach very young children. (B.S. in Ed. degree-Certification, Pre-K-6, pending State Education Department approval)

The New York State Education Department now requires a Child Abuse Seminar for all students being recommended for teaching certification; Early Childhood, Elementary Education, Secondary Education, and Speech Pathology / Audiology.

Secondary Education: Preparation to teach English, social studies, mathematics, French, Spanish, biology, chemistry, physics, or earth science. (B.A. or B.S. degree Certification 7-12)

Special Education: Preparation to teach exceptional children (B.A. in Special Studies from SUNY College at Fredonia. Certification in Special Education recommended by SUNY College at Buffalo). Program requirements described under Special Studies, page 162.

Learning and Behavioral Disorders -Noncertification: Preparation for a career in community agencies, clinics, or residential centers for the handicapped. (B.S. in Special Studies). Program requirements described under Special Studies, page 163.

Elementary Education

Elementary Education Course Requirements:

ED 105	Introduction to Contemporary Education	3
ED 225	Developmental Psychology	3
ED 227	Electronic Classroom	3
ED 250	Introduction to the Exceptional Learner	3
ED 305	Multicultural Education	3
ED 316	Teaching Mathematics in the Elementary School	3
ED 317	Teaching Science in the Elementary School	3
ED 318	Teaching Social Studies in the Elementary School	3
ED 319	Teaching Language Arts in the Elementary School	3
ED 320	Teaching Reading in the Elementary School	3
ED 349	Educational Psychology	3
ED 416	Senior Seminar	3
ED 420	Student Teaching in the Ele-	12

	Elementary School	48
HE 300	Education in Drugs, Alcohol, and Tobacco	1
MA 201	Structure of Number Systems <i>Plus an area of concentration</i>	3 30 82

Certification Requirements - In order to meet state-mandated certification requirements, the following courses must be completed. Some of the courses may also be used to meet General College Program requirements and certain concentration requirements. For information on the General College Program, see page 8.

Arts and Humanities

EN 100	Composition (GCP IA)	3
LS 116	Elementary Spanish H (GCPID)	
	or	
LF 116	Elementary French II(GCPID)	3
	or	
LG 116	Elementary German II (GCP II)	
HY 115	Western Civilization (GCP IIB)	
	or	3
HY 116	Western Civilization II (GCP IIB)	

Natural Sciences and Mathematics

BI 111	Introduction to Biology(GCP IIA) Plus Lab	4
GS 100	Introduction to Earth Science (GCP IIA) Plus Lab	4

Social Sciences

I-P/105	United States History (GCP IIC)	
	or	3
I-P/106	United States History (GCP IIC)	
PS 120	American Politics (GCP IIC)	3

Students in all education programs are required to demonstrate competence in a foreign language. This requirement may be satisfied in two ways: 1) completion of course work at the LF 116 level at Fredonia; 2) any two of the following: a) 85 percent on third-year Regents foreign language study; b)three years of high school course work in one foreign language; c) a passing score on an Advanced Placement test.

Areas of Concentration

Art (30 hours)

AR 100	Visual Concepts	3
AR 115	Masterpieces in Art to 1400	3
AR 116	Masterpieces in Art from 1400 to Present	3
AR 150	Drawing I	3
AR 151	Drawing II	3
AR 273	Ceramics I	3
AR 257	Sculpture I	3
AR 285	Painting I	3
	Art courses at the 200 level or above	6

English (30 hours)

EN 355	Literature for Adolescents	3
EN 357	Literacy, Language & Reading	3
EN 358	Composition for Elementary Education Teachers	3

An additional 21 credit hours from the following:

EN	110 Understanding Poetry
EN	115 Understanding Fiction
EN	205 Epic and Romance
EN	207 Drama and Film
EN	209 Novels and Tales
EN 211	Poetry
EN 214	American Fiction
EN 260	Intro. to Creative Writing
EN 293	Greek and Roman literature
EN 351	Language and Society

French (30 hrs)

LF 215	Intermediate French I	3
LF 216	Intermediate French II	3
LF 315	French Masterpieces I	3
LF 317	French Conversation	3
LF 318	French Composition	3
LF 421	Advanced French	3
	Pronunciation and Diction	
	Plus elective hours in French	12

Students with entry-level competence above LF 216 will meet a 24 hour requirement.

Spanish (30 hrs.)

LS 215	Intermediate Spanish I	3
LS 216	Intermediate Spanish II	3
LS 315	Introduction to Hispanic Literature	3
LS 317	Spanish Conversation	3
LS 318	Spanish Composition	3
	Plus elective hours	15

Students with entry-level competence above LS 216 will meet a 24-hour requirement.

Mathematica (28-29 hours)

CS 260	Programming I	4
MA 201	Structure of Number Systems	3
MA 110	Matters Mathematical or	3'
MA 202	Concepts of Modern Mathematics	
MA 120	Calculus I or	3
MA 122	Calculus II	4
MA 121	Calculus II or	3
MA 123	Calculus II	4
MA 210	Foundations of Discrete Mathematics	4

Two or three additional courses chosen from the following:

MA 107	Why Mathematics?
MA 200	Statistics
MA 231	Linear Algebra with

Applications MA 341 Introduction to Geometry MA 337 Combinatorial Mathematics MA 481 History of Mathematics

Student records will be reviewed for potential in mathematics and capable students encouraged to select this as their concentration. These students will be screened and placed in the appropriate entry level courses. They will be monitored, assisted and advised by advisors in the math

department. (MA 106 College Algebra will be accepted in the concentration if it is the appropriate entry level course).

Music (27-28 hours)

MU 104	Applied Music Class for Non-Music Majors	2
MU 121	Aural Theory I	2
MU 122	Aural Theory II	2
MU 123	Written Theory I	2
MU 124	Written Theory II	2
MU 131	Conducting I	1
MU 132	Conducting II	1
ME 215	Music, Play, and Self	3
	History of Western Music (any two courses)	4-5
MU 160	Middle Ages to 1800	
MU 252	1800-1875	
MU 255	1875-Present	
MU 117	Piano Class, Elementary	1
MU 118	Piano Class, Elementary	1
MU 217	Piano Class, Intermediate	1
MU 218	Piano Class, Intermediate	1
MU 210	Guitar Class	1
MU 211	Guitar Class	1
MU 270	Social Instruments	2

Science (40-48 hours)

Biology, Chemistry, Geosciences or Physics. Students will successfully complete introductory course work including labs in all four sciences and a minor in one science. GCP courses may in some cases be applied to the concentration.

Social Studies (30 hours) Introductory Courses:

PS 120	American Politics	3
HY 105	United States History	3
HY 106	United States History	3
HY 115	Western Civilization	
	or	3
HY 116	Western Civilization	
AN 115	Introductory Anthropology	
	or	
SO 116	Introductory Sociology	3
	or	
EC 201	Principles of Macroeconomics	

Upper Division (300 level or above):

PS 352	World Geography	3
	Non-Western Studies	6
	Social Studies Electives (one West- ern Civilization)	6

Elementary Education/ Early Childhood Education Emphasis

Course Requirements:

ED 105	Introductory to Contemporary Education	3
ED 220	Child Development	3
ED 221	Early Childhood Curriculum I	3
ED 250	Introduction to the Excep- tional Learner	3

ED 314	Developmental Learning	3
ED 315	Early Childhood Curriculum	3
ED 316	Teaching Mathematics in the Elementary School	3
ED 317	Teaching Science in the Ele- mentary School	3
ED 318	Teaching Social Studies in the Elementary School	3
ED 319	Teaching Language Arts in the Elementary School	3
ED 320	Teaching Reading in the Ele- mentary School	3
ED 421	Student Teaching in Early Childhood Education	12
ED 432	Parent Education	3
		48
HE 300	Education in Drugs, Alcohol, and Tobacco	1
MA 201	Structure of Number Systems	3
ME 215	Music, Play and Self	3
		55
	<i>Plus an area of concentration</i>	30
		85

Areas of Concentration: a 30 hour concentration in behavioral and social sciences including 3 hours each' in:

Sociology	21
Anthropology	
Psychology	
U.S. History	
U.S. Government	
Western Civilization	
Non-Western Studies	

9 hours in electives as advised from: 9

Sociology
Anthropology
Psychology

Certification Requirements: In order to meet state-mandated certification requirements, the following courses must be completed. Some of these courses may also be used to meet General College Program requirements and certain concentration requirements. For information on the General College Program, see page 8.

Arts and Humanities

EN 100	Composition (GCP IA)	3
LS 116	Elementary Spanish II (GCPID)	
	or	
LF 116	Elementary French II(GCPID)	3
	or	
LG 116	Elementary German II (GCPID)	
HY 115	Western Civilization I (GCPIB)	
	or	3
HY 116	Western Civilization II (GCPIIB)	

Natural Sciences and Mathematics

BI 111	Introduction to Biology (GCPIIA) Plus Lab	4
GS 100	Introduction to Earth Science (GCP IIA) Plus Lab	4

Social Sciences

HY 105	United States History (GCPIIC) or	3
HY 106	United States History (GCPIIC)	
PS 120	American Politics(GCPIIC)	3

Students in all education programs are required to demonstrate competence in a foreign language. This requirement may be satisfied in two ways: 1) completion of course work at the LF 116 level at Fredonia; 2) any two of the following: a) 85 percent on third-year Regents foreign language study; b) three years of high school course work in one foreign language; c) a passing score on an Advanced Placement test.

New certification requirements have been mandated by the New York State Education Department. In the college's desire to develop a premier teacher education program to respond to these mandates, the Department of Education and selected academic departments will continue to modify their programs in elementary education/early childhood education/secondary education. *The revised requirements affect students graduating on or after Sept. 1, 1993.*

Program Structure and Requirements: Elementary Education, Early Childhood Education

Entrance into the Professional Year: Students will be admitted to the Professional Year upon completion of the fifth or sixth semester based upon the following criteria:

1. Completion of declaration of major;
2. A minimum cumulative quality point average of 2.50;
3. A minimum grade point average of 2.50 in all required education courses;
4. A minimum grade of C in EN 100 and MA 201 or their equivalents;
5. Successful completion of the New York State examinations in General Knowledge and Communication Skills. Results of the examination must be forwarded to the Office of Field Experiences prior to the beginning of the Professional Methods Semester. (Exception: Students having a 3.0 GPA will be considered for entrance if they have been unable to take the tests.);
6. The recommendation of the education department faculty.

Students are responsible for contacting the Office of Field Experiences during the first week of classes in the spring semester of the year prior to the Professional Year to apply for a student teaching assignment.

Fredonia/Hamburg Teacher Education Center: The college and the Hamburg Central School District have cooperated in developing an innovative teacher education program for elementary education and early childhood education which combines the Professional Methods Semester course work and the student teaching experience during a full year internship at the Fredonia/Hamburg Teacher Education Center. This program received the Distinguished Program Award in 1985 from the National Association of Teacher Educators. Further information concerning this program can be obtained from the chairperson of the Department of Education and/or the Director of Field Experiences.

Learning and Behavioral Disorders Sequence: A sequence of elective courses in learning and behavioral disorders is offered by the departments of Education and Speech Pathology and Audiology. These courses, described in the appropriate departmental sections, are open to all students.

ED 200	Statistics	3
ED 250	Introduction to the Exceptional Learner	3
ED 351	Classroom Management and Learning Principles	3
ED 355	Learning and Behavior Disorders of Children	3
ED 360	Developmental Disabilities	3
SH 250	Speech and Language Devel- opment	3
PY 129	Introduction to Psychology	3
PY 317	Tests and Measurements	3

Middle School Extension

Elementary Education/Middle School Extension, Grades 7-9.

Secondary Education/Middle School Extension, Grades 5-6.

A proposal to offer middle school extensions to elementary and secondary education certificates has been submitted to the New York State Education Department and to the appropriate campus committees for approval. For information on requirements contact the Chairperson, Department of Education.

Secondary Education Course Requirements:

ED 101	Freshman Field Experience	0
ED 224	Adolescent Development	3
ED 250	Introduction to the Excellent Learner	3
ED 305	Multicultural Education	3
ED 349	Educational Psychology	3
ED 419	Secondary School Methods	3
ED 430	Student Teaching in the Secondary school	15
		30

Program Structure and Requirements: Secondary Education

A freshman field experience consisting of 25 contact hours is required of all majors. One year of college-level study of a language other than English or the equivalent.

Entrance into the Secondary Education Certification Program: Secondary education students are majors in the department of their certification area (with the exception of students enrolled in the B.A. in Social Studies). Students seeking certification in the areas of English, social studies, mathematics, French, Spanish, biology, chemistry, physics, or earth science are encouraged to declare their intent in a secondary education certification curriculum upon entering the college. However, this may be done later by requesting a certification curriculum code change from the chairperson of the major department. It is recommended that this curriculum code change be made no later than Nov. 1 of the year in which the student will have earned 60 credit hours. However, declaration of a secondary curriculum code does not guarantee admission to secondary methods and student teaching.

Entrance into Student Teaching: Students are admitted to student teaching at the completion of either the sixth or seventh semester provided the following requirements have been satisfied:

1. A minimum cumulative grade point average of 2.50;
2. A minimum grade average of 2.50 in all required education courses;
3. A minimum grade point average in all courses in the area of specialization determined by that department;
4. Recommendation of the Screening Committee in the major department based on departmental criteria, and approval of the chairperson of the education department based upon the recommendation of the Screening Committee in the major department;
5. Completion of application forms and assignment no later than March 15 of the year before student teaching. Students are responsible for contacting the Office of Field Experiences regarding these arrangements;
6. Successful completion of the New York State Examinations in General Knowledge and Communication Skills. Results of the examination must be forwarded to the Office of Field Experiences prior to beginning student teaching. (Exception: Students having a 3.0 GPA: will be considered for entrance if they have been unable to take the test.); and,
7. A minimum grade of C in EN 100 or its equivalent.

Students enroll in ED 419 Secondary Methods during the fall semester and student teaching during the spring semester.

Bachelor of Arts in Social Studies (B.A. Degree): Administrative responsibility for the program in Social Studies-Secondary Education is in the education department; assigned advisors are in the Department of History. Program requirements beyond the General College requirements include:

One year of college-level study of a language other than English or the equivalent.

Social Studies Courses: Introductory

HY 105	U.S. History to 1877	3
I-P/106	U.S. History Since 1877	3
HY 115	Early Western Civilization	3
HY 116	Modern Western Civilization	3
PS 120	Intro. to American Politics	
	or	3
PS 150	U.S and World Affairs	
SO 116	Introductory Sociology	
	or	3
AN 115	Introductory Anthropology	
EC 201	Principles of Macroeconomics	3
EC 202	Principles of Microeconomics	3

Social Studies Courses: Advanced (300-400 level)

PS 324	President and Congress	
	or	3
PS 370	American Constitutional Law	
	or	3
PS 371	Civil Rights & Liberties	
	Plus a political science course in international studies, and an elective course in minority studies: SO 316, AN 321, AN 322 or other courses as advised.	6
	And 9 hours in history (at least one course in non-western areas: Asia, Africa, Latin America, Middle East, and another in international studies)	9

Plus an option in either General Social Studies or Economic Studies:

General Social Studies Option

9 hours in history, economics, political science, sociology, or anthropology (all courses must be 300 level or above with at least one course in non-Western areas: Asia, Africa, Latin America, Middle East, and an other in international studies)

51

Economic Studies Option

(Recommended for students who have an interest in teaching economics in high school in addition to other social studies subjects.)

EC 305	Intermediate Microeconomic Theory	3
EC 310	Intermediate Macroeconomic Theory	3
	Plus 9 hours of economics above the 200 level.	9

57

Professional Education:

ED 101	Freshmen Field Experience	0
ED 224	Adolescent Development	3
ED 250	Intro. to the Exceptional Learner	3
ED 305	Multicultural Education	3
ED 349	Educational Psychology	3
ED 419	Secondary School Methods	3
ED 430	Student Teaching-Secondary School	15

Total: 81 or 87 hours

Minor in Educational Studies

The education department offers a non-certification 24 credit hour minor in educational studies. This minor is available to nonteacher education majors who wish to include an in-depth minor in educational studies in their college programs.

Core Courses (12 hours)

ED 225	Developmental Psychology	
	or	
ED 224	Adolescent Development	3
	or	
ED 220	Child Development	
ED 250	Intro. to the Exceptional Learner	3
ED 305	Multicultural Education	3
ED 349	Educational Psychology	
	or	3
ED 314	Developmental Learning	

Area Studies (12 hours): Designed according to the student's interests and career goals; developed by the student and approved by the Educational Studies advisor. Examples of area studies: learning disabilities, early childhood administration, outdoor education studies, educational measurement/statistics.

Implications of Public Law 94142, Education for all Handicapped Children, are incorporated in the teacher education courses and curriculum.

Courses Open to Non-Majors: ED 105, 200, 212, 214, 215, 216, 220, 224, 225, 250, 305, 306, 322, 326, 332, 349, 351, 355, 360, 415, 450.

ED 100. Tutoring Theory- Practice

A

This course is designed to lead practicing tutors into an examination, through readings and discussion, of what tutoring is, why and how it works and what tutoring can and cannot accomplish in a college setting. Because the course is designed to run concurrently with practical tutoring, candidates need to apply to and be accepted by College Tutoring Services. Acceptance is based on transcript, faculty evaluation and interviews and takes place during the semester prior to that during which the course is taken. *1hour credit*

ED 105. Introduction to Contemporary Education

A

Introduction to elementary education, its principles and practices. Organization of elementary schools, planning, teaching styles, classroom management, and instructional materials are among the topics considered. Direct experiences with children are an integral part of the course. *3 hours credit*

ED 200. Statistics

B

Elements of probability theory; fundamental concepts and techniques of statistics with application. May not be repeated for credit. *3 hours credit*

ED 212. Teaching Writing and Drama

B

Examines two areas crucial to a child's language development the ability to speak and the ability to translate thoughts into writing; composing skills of speaking and writing to help integrate, reinforce, and strengthen the comprehension skills of listening and reading for children. Class members will actively explore dramatic pantomime, improvisation, puppetry, storytelling, choral speaking, performing texts, poetry writing, and various other writing experiences appropriate for children. *3 hour. credit*

ED 214. Introduction to Children's Literature

A

Designed to assist students in becoming widely acquainted with the great wealth of trade (library) books and media available for today's children, preschool through middle school. Course content includes all literary types. 3 hours credit

ED 215. Education in American Society**A**

Foundations course in the study of education. Introduction to social, historical, and philosophical foundations of education and the relationship between school and society. 3 hours credit

ED 216. Introduction to Secondary Education**D**

This field-based course serves as an introduction to the principles and practices in secondary education. Special emphasis on teaching methods appropriate for all disciplines. Recommended for all students prior to the appropriate secondary methods course. Students spend approximately 20 hours in a secondary classroom performing a variety of activities, including planning and teaching lessons. Fall semester only. 3 hours credit

ED 220. Child Development**B**

Development of the child from beginning of life prenatal development through age 12. Study of physical, cognitive, social, emotional, and moral development of the child. *Credit will not be given for both ED 220 and ED 225. 3 hours credit*

ED 221. Early Childhood Curriculum I**B**

History and philosophy of early childhood education. Emphasis on ways and uses of observing children in preschool settings. Field based. *Co-requisite* ED 220 or permission of instructor. 3 hours credit

ED 224. Adolescent Development**A**

Physical, mental, and emotional influences on the human growth periods in terms of habits, interests, and social adjustment. Factors in home and school that influence adolescent behavior and personality. 3 hours credit

ED 225. Developmental Psychology**A**

Orderly sequence of human growth and development. Principles of physical, intellectual, and personality changes emphasized along with procedures for evaluating relevant research. *Credit will not be given for both ED 220 and ED 225. 3 hours credit*

ED 227. The Electronic Classroom**A**

An introduction to computer managed instruction, computer based instruction, and the design and use of multimedia resources in the classroom. No prior experience with personal computers is assumed. 3 hours credit

ED 250. Introduction to the Exceptional Learner**A**

Introductory survey of nature, needs, and education of children who are exceptional because of intelligence, behavioral disorders, and/or physical development. Field experience component required. 3 hours credit

ED 305. Multicultural Education A

An introduction to basic concepts, theories, and issues involving multicultural education, cultural diversity, and the educational system. Emphasis is on the development of a sound theoretical framework from which practical application to classroom situations will evolve. Students will teach, interact with, and/or observe children and youth from diverse cultural and linguistic backgrounds and employ a variety of teaching strategies. Field experience component required. 3 hours credit

ED 306. Cultural Geography**D**

Investigates the cultural explanations of human interaction with the environment, historically and presently; analysis of population distribution, structure, migration and the problems of cultural and spatial changes associated with population growth. Examination of cross-cultural issues which are of major importance to social institutions within a society. 3 hours credit

ED 310. Educational Psychology**A**

Areas of psychology utilized in the teaching and learning processes. Analyzing and interpreting scientific data related to individual differences, growth, learning, group processes, and evaluation. *Credit will not be given for ED 314 and ED 349. 3 hours credit*

ED 314. Developmental Learning**B**

This course is designed to familiarize the beginning teacher with various developmental and learning theories, instructional implications relating to each theory, and classroom application of relevant principles. *Credit will not be given for ED 314 and ED 349. 3 hours credit*

ED 315. Early Childhood Curriculum II**B**

The Why and How of curriculum planning to meet the needs of young children. Students will plan and implement teaching strategies and activities, in various pre school settings. Field-based. prerequisite ED 221 or permission of instructor. 3 hours credit

ED 316. Teaching Mathematics in the Elementary School**B**

Curriculum, materials, and procedures in teaching mathematics in the elementary school. 3 hours credit

ED 317. Teaching Science in the Elementary School**B**

Materials and procedures in a process centered science curriculum. Investigation of new curricula illustrating guided discovery approach to teaching science. 3 hours credit

ED 318. Teaching Social Studies in the Elementary School**B**

Curriculum, materials, and procedures in teaching social studies in the elementary school. 3 hours credit

ED 319. Teaching Language Arts B in the Elementary School**B**

Examination of principles, methods, and techniques necessary for teaching language arts in elementary school. Language development, composing, and comprehending skills emphasized. 3 hours credit

ED 320. Teaching Reading in the B Elementary School

Methods and materials for teaching reading in the elementary school. Attention given to a variety of instructional approaches, skills necessary for reading, ways of organizing for instruction, and evaluation techniques. 3 hours credit

ED 321. Teaching in the Middle School**B**

Principles, materials, curriculum, and methods for teaching in the middle school. Required for certificate extension to middle school grades. 3 hours credit

ED 322. Selection and Use of Instructional Media**D**

Designed to meet the demands which the impact of instructional media has created. Background in the selection and use of media. 3 hours credit

ED 326. Elements of Public School Law**D**

Basic study of school law as applied to the organization of education from the federal and state perspective. Special attention is focused on the teacher and the law with respect to tort liability, due process, rights and responsibilities of teachers, students and parents. Impact of court decisions on the school. 3 hours credit

ED 332. Teaching Creative Arts and Movement**D**

Theory, curriculum, materials, and activities in the visual arts, music, and creative movement. Focus on children ages 3 to 8. 3 hours credit

ED 349. Educational Psychology**A**

Areas of psychology utilized in the teaching and learning processes. Analyzing and interpreting scientific data related to individual differences, growth, learning, group processes, and evaluation. *Credit will not be given for ED 314 and ED 349. 3 hours credit*

ED 351. Classroom Management and Learning Principles**B**

Examination of significant research in areas of human learning and motivation as they relate to effective instructional strategies. An investigation into how teachers can translate theories and research from such areas as achievement motivation, learner cognitive style, emotional climate of the classroom, concept learning, creativity, and problem-solving into constructive classroom action. *Prerequisite* ED 349. 3 hours credit

ED 352. Introduction to Learn Disabilities in Elementary School Mathematics**D**

Introduction to problems children have in learning elementary school mathematics. Methods of evaluating a student's strengths and weaknesses in math to determine the child's level of learning and to establish an educational treatment program. *prerequisite* ED 316 or 6 hours math. 3 hours credit

ED 355. Learning and Behavior Disorders of Children**B**

Critical examination of the etiology of learning and behavioral disorders, and a review of effective treatments of management procedures. Etiological factors covered include the role of biology, the family and the school. Disorders reviewed include hyperactivity, attention deficit disorders, aggressiveness and depression. Emphasis is placed on implications for the potential classroom teacher. 3 hours credit

ED 360. Developmental Disabilities**D**

An examination of the etiology, characteristics, and psychological development associated with developmental disabilities. While focusing largely on mental retardation, the course is noncategorical in orientation. Particular attention is paid to techniques and strategies for integration of developmentally disabled children into the mainstream of education. *Prerequisite* ED 250 or equivalent. 3 hours credit

ED 390. Special Topics in Education**A**

Study of special areas in education not covered by existing courses. Content varies from semester to semester. Consult the appropriate *Course Offerings Bulletin* and department notices. 1-3 hours credit

ED 406. Classroom Problems in Teaching Reading in the Elementary School**D**

Meeting individual needs, adapting to special handicaps, correcting faulty reading habits, motivating the reluctant reader, evaluating progress. *prerequisite* ED 32a or permission. 3 hours credit

ED 408. Supervised Reading Practices in the Public School**D**

Pursuit of independent study options in reading instruction; field experiences, tutorial work. Emphasis on variety of direct instructional experiences. *Prerequisite* ED 320. 3 hours credit

ED 415. School and Society**B**

Foundations course in the study of education. Seminar on social, historical, and philosophical foundations of education and the relationship between school and society. *Credit will not be given for both ED 215 and ED 415. 3 hours credit*

ED 416. Seminar in Education**B**

A critical review and evaluation of current educational theories and practices integrating the student's work in professional education. *3 hours credit*

ED 419. Secondary School Methods**B**

Principles, materials, and methods for teaching English, foreign languages, mathematics, science, or social studies in the secondary school. Assignment to sections according to subject matter. Note Must be taken before senior student teaching. Required for Secondary certification students. *3 hours credit*

ED 420. Student Teaching in the Elementary School**A**

A field assignment to teach in Elementary Education. Assignments provided at two different grade levels; arrangements made by the Office of Field Experiences. Open only to students accepted in Elementary Education (curriculum code 100). *2 hours credit*

ED 421. Student Teaching in Early Childhood Education**A**

A field assignment to teach in Early Childhood Education. Assignments provided at two different grade levels; arrangements made by the Office of Field Experiences. Open only to students accepted in Early Childhood Education (curriculum code 101). *2 hours credit*

ED 430. Student Teaching in the**B****Secondary School (English, Foreign Languages, Mathematics, Science, Social Studies)**

A field assignment to teach in secondary education. Assignments provided by subject area in grades 7 through 12; arrangements made by Office of Field Experiences. Open only to students accepted in Secondary Education Certification *Prerequisite* ED 419. *15 hours credit*

ED 432. Parent Education**B**

Relationship of the teacher to families and supportive services in the community. Topics include parent-teacher conferences, parent education and involvement, child abuse and neglect, child advocacy, needs of parents of children with special needs, teacher as consultant/facilitator and coordinator. *Corequisite* ED 421. *3 hours credit*

ED 450. Fundamentals of**D****Diagnosis and Evaluation of Pupil behavior**

Instruction and practice in interpretation of clinical instruments used in assessment and diagnosis of students with learning disabilities. *prerequisite* ED 250 or a major in speech pathology and audiology, or permission. *3 hours credit*

ED 480. Internship**A**

Participation in a professional, subject related experience. The student must submit a proposal stating what the experience is, how it relates to the student's course of study, and how it will be monitored and evaluated. The instructor will be responsible for the supervision of the intern. The proposal must be approved one month in advance by the advisor, instructor, and chairperson prior to registration. *3-15 hours credit*

ED 490. Independent Study**A**

Study of a particular problem in education. Periodic meetings with instructor and the writing of a substantial paper. *prerequisite* Senior standing; permission of instructor, advisor, and chairperson; contact department office prior to registration *1-3 hours credit*

ENGINEERING (COOPERATIVE)

Office: 118 Houghton Hall

Michael N. Grasso, *Director*

Cooperative Engineering is an innovative program which maximizes employment opportunities following graduation by combining liberal arts and sciences with engineering. Based on agreements made with each school, the College at Fredonia is currently affiliated in a Cooperative Engineering program with the following institutions: Case Western Reserve University (1); Clarkson University (2); Columbia University (3); Cornell University (4); Louisiana Tech University (5); New York State College of Ceramics at Alfred (6); Ohio State University (7); Rensselaer Polytechnic Institute (8); Rochester Institute of Technology (9); State University of New York at Binghamton (10); State University of New York at Buffalo (11); Syracuse University (12); and Tri-State University (13).

The following is a list of the diverse program options available at the engineering colleges, under the Fredonia Cooperative Engineering Program, identified by the institution code number given above.

Aeronautical (8) (13)
 Aeronautical and Astronautical (7) Aerospace (11) (12)
 Agriculture (4) (5) (7)
 Applied and Engineering Physics (4)
 Applied Chemistry (3)
 Applied Geophysics (3)
 Applied Mathematics (3)
 Applied Physics (3)
 Bioengineering (3) (12)
 Bioengineering with Pre-Medical Emphasis (12)
 Biomedical (1) (5) (8)
 Ceramic (6) (7)
 Ceramic Science (6)
 Chemical (1) (2) (3) (4) (5) (7) (8) (11) (12) (13)
 Chemical Engineering with an Environmental Systems Option (12)
 Chemical Engineering with Materials Science Option (12)
 Civil (1) (3) (5) (7) (8) (11) (12) (13)
 Civil and Environmental (2) (4)
 Computer (1)(3)(9)(12)
 Computer and Information Science (7)
 Computer and Systems (8)
 Electrical (1) (3) (4) (5) (7) (8)(9) (10) (11) (12) (13)
 Electrical and Computer (2)
 Electrical Power (8)
 Engineering Administration(13)
 Engineering Mechanics (3)
 Engineering Physics (4) (7) (8)(11).
 Engineering Science (8)
 Environmental (3) (8) (12)
 Fluid and Thermal Sciences (1)
 Geological Sciences (4)
 Geoscience (5)
 Glass Science (6)
 Industrial (9) (11)
 Industrial and Computer (5)
 Industrial and Management (3)(8)
 Industrial and Systems (7)
 Materials (8)
 Materials Science (3)
 Materials Science and Engineering (4)
 Mechanical (1) (3) (5) (7) (8) (9) (10) (11) (12) (13)
 Mechanical/Aerospace (2) (4) (12)

Metallurgical (3) (7)
 Metallurgy and Materials Science (1)
 Microelectronics (9)
 Mineral and Chemical Metallurgy (3)
 Mining (3)
 Nuclear (3) (4) (8)
 Operations Research (3)
 Operations Research and Industrial (4)
 Petroleum (5)
 Polymer Science (1)
 Systems and Control (1)
 Theoretical and Applied Mechanics (4)
 Welding (7)

These cooperative arrangements include but are not limited to the popular Three-Two (3-2) option. Briefly, a student in the 3-2 option majors in a modified curriculum in biology, business administration, chemistry, computer science, economics, English, geology, history, mathematics, mathematics-physics, philosophy, physics, political science, psychology, or sociology; and takes a minimum of 90 credit hours of liberal arts and sciences at the College at Fredonia and 60 or more credit hours at one of the affiliated engineering colleges. When the student completes the five-year option, he/she obtains a baccalaureate from the engineering institution and one from the College at Fredonia, provided the student satisfies Fredonia's remaining requirements at the engineering school.

It is possible for students who do not wish to major in any one of the specified departments to enter the Special Studies program which allows the student to design his/her own Cooperative Engineering curriculum. This curriculum will include, but not be limited to, the engineering core and related courses for the engineering college of the student's choice. In summary, the biology, business administration, chemistry, economics, English, geology, history, mathematics, mathematics-physics, philosophy, physics, political science, psychology, sociology, and special studies departments all have curricula in Cooperative Engineering.

Although the popular 3-2 option is considered the basic option for cooperative engineering, 2-2, 2-3, 3-3, and 4-2 options are available. The 2-2 and 2-3 options do not lead to College at Fredonia degrees; the 3-3 and 4-2 programs do.

Suggested Minimum Engineering Core:

Core Program:	Hrs.
CH 115-116	8
CH 125-126	
MA 122-123	12
MA 224	3
PH 230-231	8
PH 321-322	8
EN 100	3
	3

Strongly recommended are courses in computer programming, Modern Physics (PH 234), and 3 to 6 hours of economics.

In addition, Circuit Analysis (PH 323-324) is required for students pursuing careers in Electrical Engineering and is strongly recommended for other engineering areas. This core, coupled with the departmental and general college requirements, forms the basic curriculum for the three-year program at the College at Fredonia.

For specialized curricula such as Aeronautical and Astronautical, and Welding Engineering, the 2-3 option is available. Students in the 2-3 option may or may not choose to take the engineering core.

An attractive feature of the 3-2 option is that the final decision regarding the area of engineering usually is not made until the third year, thus providing the student with sufficient experience to make a proper choice. However, it is to the student's advantage to choose the second institution and the area of engineering as soon as possible. To transfer, the student first consults with the cooperative engineering director and then applies to one of the affiliated engineering colleges or to any other engineering college of his/her choice. Usually, a favorable letter of recommendation from the director is forwarded for highly motivated students with satisfactory academic records. At the affiliated engineering institution a College at Fredonia student application is given special consideration. However, it should be noted that, for Case Western Reserve and Columbia, admission is guaranteed to students with an overall average of B+ (3.3).

Since there are more than 60 baccalaureate programs with numerous concentrations available at the affiliated institutions, and since these curricula are frequently updated, it is mandatory that all students registered in Cooperative Engineering meet the director or authorized designee for advisement each and every semester.

For students interested in transferring to the Cooperative engineering program, either from other Fredonia majors or from other colleges, the following applies:

- 1) The student should have completed sufficient background courses to insure timely completion of the three-year Fredonia component.
- 2) The student should have a cumulative GPA of approximately 2.8 or higher. Students should be aware that engineering schools will not accept students with less than outstanding academic records.

A student organization, the Fredonia Engineering Society, provides a lecture series given by engineers invited from industry as well as from the affiliated institutions, who speak about their work and about engineering as a career. The society also provides other extracurricular activities.

Student Honors And Awards

Students should contact the director of the Cooperative Engineering Program for additional details for the following award:

Cooperative Engineering Scholarship Award.

Engineering-related Courses

PH 200. Engineering Graphics

A

Introduction to tools, language, and procedures basic to training of an engineering draftsman. Emphasis on drafting techniques, and two-dimensional and isometric representation. 2 hours credit

PH 321. Engineering Mechanics I

B

A tensor calculus treatment of applied mechanics including fundamentals of mechanics, vector algebra, equivalent force systems, equilibrium, structural mechanics, friction, surfaces, kinematics, dynamics, energy, momentum, relative motion, dynamics of rigid bodies, and Euler's equations. *Prerequisite* PH 230. *Corequisite* MA 223 or higher. 4 hours credit

PH 322. Engineering Mechanics

B

II Continuation of PH 321 including stress, strain, mechanical properties of solids, multidimensional stress-strain relations, section forces in beams, stresses in beams, deflection of beams, torsion, stresses and strain relations at a point, Mohr's circle, energy methods, elastic stability, and vibrations. *Prerequisite* PH 321. *Corequisite* MA 224 or higher. 4 hours credit

PH 323. Circuit Analysis I

B

A development of network analysis including Ohm's and Kirchoff's laws, operational amplifiers, nodal analysis, network theorems, trees and links, energy-storage elements, RC and RL circuits, and second order circuits. *Corequisite* MA 223 or higher. 3 hours credit

PH 324. Circuit Analysis II

B

Continuation of PH 323 including sinusoidal excitation and phasors, AC steady state analysis, three-phase circuits, complex frequency and network functions, frequency response, transformers, Fourier and Laplace transforms. *Prerequisite* PH 323. *Corequisite* MA 224 or higher. 3 hours credit

ENGLISH

Office: 277 Fenton Hall

Ronald Ambrosetti, *Chairperson*

Karen Mills-Courts, *Associate Chairperson*

The Department of English offers a variety of areas of study. Traditional literary and historical analysis of fiction, poetry, and drama is basic to the discipline, but that study may be extended in many ways. Options include film, folklore, history of the language, journalism, media criticism, pedagogy, creative writing, public relations, and technical and professional writing.

For the English major, the department offers:

First, a broad exposure to literature and language through a selection of representative courses within the discipline.

Second, either a deeper investigation within a single concentration, or, with the assistance of a department faculty advisor, a broad sampling of subjects of study in the department.

For the English minor, the department offers courses that can easily be organized to complement any major or pre-professional study.

Requirements for the B.A. Degree in English

The major in English requires a minimum of 36 hours of courses selected according to the following plan. It also requires the completion of a reflective portfolio. In special circumstances a particular course requirement may be waived and another course substituted with written approval of the Department of English. Students seeking a waiver of a particular course requirement should consult their advisors; approval for such waivers is granted by the English department chairperson or his/her designee.

No more than 6 hours earned in any combination of internships and independent studies may be counted toward the major.

Majors in English must complete at least 75 hours outside the major in order to graduate (Composition does not count as part of the major). Other exemptions from this policy must be approved by the chair of the Department of English at the time of the mandatory 75 hour audit.

I 18 hours from the following core courses:

A. Required Core

EN 205	Epic and Romance	3
EN 207	Drama and Film	3
EN 209	Novel and Tale	3
EN 245	Critical Reading	3
EN 400	Advanced Writing	3

B Colloquia

Three hours chosen from one-credit colloquia numbered 311-411 offered by three different faculty members. 3

II Electives: *Any* 18 additional hours in English department courses on the 200-level or above.

III Satisfactory completion of a reflective portfolio.

English-Education: Students in English-Education must complete the same basic requirements as majors in English. Because English-Education is part of a State Certification Program designed to prepare students to teach English in grades 7 through 12, students in this program must take the following courses in lieu of 12 hours of electives in English:

EN 355	Literature for Adolescents
EN 356	Teaching Writing in the Secondary School

EN 357 Language, Literacy, and Reading
 EN 450 Seminar for Teachers of English

In addition, these students must also take the required education courses and one year of collegelevel study of a language other than English, or the equivalent. See pg. 79 of this catalog.

Acceptance into student teaching is contingent on a personal interview with English education faculty. Students pursuing certification as teachers of Secondary English must achieve a minimum grade point average of 2.5 in their major and at least a C+ in each of the courses that are required for the English education concentration (EN 355, 356, 357, 450).

Requirements for Transfer Credit:

The Department of English at Fredonia requires majors in English to complete at Fredonia a minimum of 24 hours of courses applied to the major. Thus, students transferring to Fredonia should normally expect no more than 12 hours earned elsewhere to apply to the major in English. Additional hours earned in English may be used as general electives or may be applied, under prescribed conditions, to Part I of the General College Program.

The department requires of its majors completion of 36 hours of English credits composed of core courses and electives chosen under the Careful process of advisement. As a rule, the department will not accept as equivalents for upper-level courses credits earned at two-year colleges.

The Minor in English requires a minimum of 18 hours of courses, 12 hours of which are in courses numbered 300 or above. EN 100 may not be counted as part of the minor. At least 9 hours counted toward the minor must be taken at Fredonia. No more than 3 hours earned in internships or independent studies may be counted toward the minor. Students considering a minor in English should request departmental advisors, who will aid in the preparation of their programs.

ADVISING: An assigned faculty advisor will aid each student in shaping his or her portfolio and reflecting on its contents. Advisors also help advisees in, preparing course schedules, meeting requirements, making broad educational decisions, and solving other academic problems. As a further aid, the department regularly publishes a pre-registration *Course Description Booklet* that contains details not found in this catalog required readings, papers, exams about courses scheduled each semester.

The Department of English participates in the Cooperative Agriculture and Cooperative Engineering programs. Refer to descriptions of these programs on page 46 and 82 respectively.

COURSE NUMBERING: All courses are open to majors and non-majors alike (except for specialized prerequisites as indicated); however, allowing for correction through advisement and the *Course Description Booklet*, the student may generally assume that most 100-level courses are introductory

200 level courses are survey introductory

300 level courses focus on literary periods, themes, genres, and writers

400 level courses are specialized studies of major figures and works

500 level courses are open to undergraduate majors with senior standing (89 hours of academic course work).

LOWER DIVISION

100-199

EN 100. Composition

A

Practice in expository, persuasive, and other modes of writing. Readings, emphasis, and approach determined by instructor in each section. 3 hours credit

EN 105. Composition and Literature

A

Study and practice of various modes of writing about literature, using representative literary works. 3 hours credit

EN 110. Understanding Poetry

A

Introduction to analysis of poetry, its forms, and genres. 3 hours credit

EN 115. Understanding Fiction**A**

Introduction to basic terms and concepts used in analysis and criticism of fiction. Reading of representative works. 3 hours credit

EN 116. Understanding Drama**D**

Introduction to basic terms and concepts used in analysis and criticism of drama. Reading of works representative of types and periods of drama. 3 hours credit

LOWER DIVISION 200-299**EN 201, 203. Survey of English Literature to 1800 and After 1800****A**

The study of major texts from Beowulf to the end of the 18th century is covered in EN 201, from the Romantic period to the present in EN 203. Study will include divergent approaches to texts, the historical development of English literature, and the relationship between literature and other disciplines. 3 hours credit *each semester*

EN 205. Epic and Romance**A**

Study of works of epic and romance from a variety of times and places, their function as literary works, their similarities, and their different concepts of the human. 3 hours credit

EN 207. Drama and Film**A**

Study of plays and some films from different times and places, their possible interrelations and ways they reflect their various cultures. 3 hours credit

EN 209. Novel and Tale**A**

Study of long and short fiction of several kinds, including myth, fable, and realistic narrative, from a variety of places and times, their commonalities, and their relation to their different cultures. 3 hours credit

EN 212. Modern Novels and Plays**D**

Study of outstanding works - American, English, and Continental - chosen for their philosophical significance and their distinction as works of art in presenting major themes of human experience. 3 hours credit

EN 214. American Fiction**A**

Readings from among various fiction genres, intended to reflect the growth of and influences in American fiction from its beginnings to the present; specific focus is chosen by the instructor. 3 hours credit

EN 216. Science Fiction**D**

Historical and generic survey of science fiction through representative works and major authors; examination of its relationships with other types of literature. 3 hours credit

EN 245. Critical Reading**A**

Focus on helping student develop an awareness of their own acts of interpretation in reading and an understanding of the strengths of different approaches to interpretation and criticism. 3 hours credit

EN 260. Introduction To Writing**A**

First in the sequence of creative writing courses, a prerequisite for all higher level creative writing. Conducted in an informal workshop format, the course provides practical experience in the writing and evaluation of poetry and short fiction. Basic forms, prosodies, techniques, theories, genres, and the problems they pose are considered, through study of historical and contemporary examples, and through writing assignments 3 hours credit

EN 270. Introduction to Print Media**A**

The basic course in journalism and other print media sequences, this course focuses on how the print media function in our society and provides practice in writing for such media. Major ethical and legal issues are introduced and discussed. 3 hours credit

EN 280. Introduction to Film**A**

Study of ways to approach and understand film as a medium of art and communication. Emphasis on building a working vocabulary of basic film terms through screenings, discussion, and analysis of feature and shorter films. 3 hours credit

EN 281. Film and TV Analysis**A**

Film and video examined as social and cultural products of a specific historical and cultural conjuncture. Focus on ways film and video are consumed, found meaningful and pleasurable, and perform ideological operations. 3 hours credit

EN 290. Library Resources and Reference Tools**C**

Introduction to use of library theory and practice of research materials and methods in all areas; techniques for preparing a reference paper. 3 hours credit

EN 291. The Bible as Literature**A**

Examination of sections of Old and New Testaments as works of literature, history and religious thought. Emphasis on major themes, motifs, and critical techniques. 3 hours credit

EN 292. Women in Literature**D**

An introductory course to works by and about women poems, stories, plays. Emphasis is upon the female achievement as seen in the context of the culture as a whole. 3 hours credit

EN 293. Greek and Roman Literature**B**

Introduction to major literary genres of classical Greece and Rome; emphasis on characteristic forms and themes. Readings in Modern English translations. 3 hours credit

EN 294. Introduction to Folklore**C**

Survey of terms necessary to collector and student of folklore; some attention to folkloristic backgrounds of literature. Survey of world folklore studies and classifications and of regional and ethnic folklore in U.S. student collection projects. 3 hours credit

EN 295. Ethnic Folklore**C**

Survey of folklore of American ethnic groups. Comparative study of Old World traditions transplanted and transformed into New World genres and themes. Groups most frequently treated are black, Italian, Jewish, Polish, and Puerto Rican Americans. 3 hours credit

EN 296. Sex, Violence, and Racism in American Literature and Culture**A**

The interconnection of these three elements in American life, particularly as reflected in 20th century American fiction. Interdisciplinary American studies course, involving history, psychology and sociology as well as literary study, and consideration of popular culture. 3 hours credit

EN 299. Special Topics**D**

Variable-content, sophomore-level course; topic announced in *Course Offerings Bulletin* each semester. 3 hours credit

UPPER DIVISION 300-399**EN 305. Writing Essays About Literature****C**

A writing course designed specifically for English majors. Practice in the preparation of essays on various literary topics and review of readings in professional journal literature. Essay assignments include a library research paper. 3 hours credit

EN 310. Medieval Literature**C**

Study of selected texts representative of the literature flourishing in Britain between 600 and 1500, excluding Chaucer. 3 hours credit

EN 311. Colloquium**A**

An unconventional discussion-meeting on varying topics in a small-group setting, developing and exposing principles and practices for the study of texts. *1 hour credit*

EN 3 12. The Age of Elizabeth**B**

Study of the literature of the 16th century, including works of such writers as More, Skelton, Wyatt, and Surrey, leading up to the great writers of Elizabeth's reign: Sidney, Shakespeare, Spenser, Marlowe, and Donne. 3 hours credit

EN 3 14. Major Women Novelists**D**

An in-depth study of novels by women ranging from Jane Austen and Emily Bronte to Doris Lessing and Joyce Carol Oates. Emphasis is upon the female writers as distinct from the male in subjects and themes. The course seeks to explore their differences but also to place them in the context of the culture as a whole. 3 hours credit

EN 3 16. The Early Seventeenth Century**C**

Study of the metaphysical and neo-classic traditions in the poetry of Donne and Jonson, Herrick, Crashaw, and Marvell; study of a variety of emerging prose styles in works by Raleigh, Bacon, Donne, Browne, Burton, and Bunyan. 3 hours credit

EN 318. Studies in Poetry**B**

Advanced level course in analysis of poetry: introduction to various critical approaches; background study of poetic techniques; independent work on one poet. 3 hours credit

EN 320. The Restoration and Eighteenth Century**B**

Critical study of major literary forms within historical context of period. Swift, Pope, and Johnson among the authors considered. 3 hours credit

EN 322. The Romantic Age**A**

Romantic movement in England, 1790 to 1835, as exemplified in writings of Blake, Wordsworth, Coleridge, Lamb, Byron, the Shelleys, Keats, Wollstonecraft, DeQuincey, Hazlitt, and others. 3 hours credit

EN 324. Myth and Symbol in Literature**A**

Examination of symbolic forms of literary expression and their interrelationships in selected works. 3 hours credit

EN 326. Victorian and Early Modern Literature**A**

Introduction to later 19th century English poetry and prose; emphasis on relationship between social-intellectual history and the literature. Topics include problems of rapid industrialization, impact of science and technology, pressures for increased democratization, impact of laissez-faire capitalism, and relationship of the literature to 19th century music, painting, and architecture. 3 hours credit

EN 328. Modern British Literature**A**

Study of major British fiction, poetry, and drama, 1900 to the present. Topics include the Irish national movement, romantic/realistic attitudes toward war, the roots of modernism, the dissolution of Empire. Authors range from Yeats, Synge, Joyce, and Lawrence to Amis and Fowles. Approach is varied but tends to emphasize social-historical backgrounds. 3 hours credit

EN 330. The Contemporary Novel**B**

Study of the novel in Britain and America, 1948 to the present. Emphasis on variety of forms, styles, and techniques in the genre and on contrasts in British/American novels of the period reflective of long-established, quite separate traditions. 3 hours credit

EN 331. American Literary Roots**C**

Study of American literary and cultural roots in the 17th and 18th centuries; special attention to the emergence of myths and realities concerning the American hero and the American dream, including specific issues such as the rise of slavery, the role of women, the treatment of the Indian, the power of the Puritans, and the rhetoric of the Revolution. 3 hours credit

EN 332. American Romanticism in Literature**B**

Study of Romanticism in terms of influence, development, and characteristics within the context of American culture, including textual examples ranging from indigenous native sources to those of Europe and the East. 3 hours credit

EN 334. Realism and Naturalism in American Literature**B**

Study of Realism and Naturalism in terms of influence, development, and characteristics within the context of American culture, including influences from Europe and from the emerging voices of American women and Afro-American slaves. 3 hours credit

EN 336. Modernism in American Literature**B**

Study of modernism in terms of influence, development, and characteristics within the context of American culture; might include such figures as Faulkner and Hemingway, and such movements as the Harlem Renaissance. 3 hours credit

EN 337.- Native American Writers**B**

Study of a variety of works, including traditional tales and lyrics, tale cycles, novels, poems, and memoirs, produced by native Americans from historical beginnings to the present. 3 hours credit

EN 338. Contemporary American Literature**B**

Study of contemporary directions, including those suggested by the works of Hispanic, native American, Afro-American, and other ethnic groups that contribute to the meaning of the American identity today. 3 hours credit

EN 339. Contemporary American Poetry**C**

Study of American poetry being written now and during the past 20 years in relationship to the American and lyric traditions. Focuses on the place of poets in our society, the cultural and historical context of American poetics, and the development of a uniquely American voice in contemporary poetry. 3 hours credit

EN 340. Black Women Writers**B**

Study of the literature written by and often about black women, including poetry, short and long fictions, novels, drama, biography, and autobiography from the 18th century to the present. 3 hours credit

EN 346. History of Literary Criticism**C**

Survey of representative texts in literary criticism from Plato and the Greeks through the Enlightenment and Burke. 3 hours credit

EN 348. History of Modern Literary Criticism**C**

Study of major documents, theoretical concerns, and dominant trends in literary criticism from the mid-19th century through the mid-20th century. Students are encouraged to complete EN 346 before enrolling in this courses. 3 hours credit

EN 351. Language and Society**B**

Survey of ways language interacts with social features such as sex, race, age, class, and nationality. Includes such areas as slang, obscenity, and folk speech, as well as aspects of language acquisition and change. 3 hours credit

EN 352. History of the English Language**B**

Development of the language from its beginnings to the present; major factors which have shaped growth of English; specific processes of change within the language. 3 hours credit

EN 355. Literature for Adolescents**A**

Study of and written responses to a broad variety of texts written for, by, and about adolescents. Examination of the adolescent experience as it is depicted in this literature. 3 hours credit

EN 356. Teaching Writing in Secondary School**B**

Study of, and practice in, strategies for teaching the process of writing prewriting, drafting, revision, editing, and publication. Approaches to whole-language instruction in writing, and to evaluating writing in the secondary school. 3 hours credit

EN 357. Literacy, Language, and Reading**B**

Study of philosophical, sociological, and psychological theories of language, linguistics, and learning theory used to explore the nature of the reading process, how people learn to read, how people make meaning from print and other media, and how teachers might help students become more capable readers. *3 credit hours*

EN 358. Composition for Elementary Education Teachers**B**

Analysis of the writing process as it applies to elementary and junior high students. Practical approaches to persuasive writing, descriptive writing, report writing, letter writing, and grammar. 3 hours credit

EN 360. Intermediate Creative Writing**A**

Continued study of forms, techniques, genres, and theories of poetry and fiction. Emphasis on further development of students' skills in writing and self-criticism through intensive workshop experience. Students may write poetry, fiction, or both. Readings in contemporary poetry and fiction. prerequisite EN 260 or its equivalent, or permission of the instructor *3 hours credit*

EN 366. Opinion Writing**B**

Introduction to techniques appropriate to presentation of opinion and critical commentary in print and electronic media editorials, political columns, magazines, critical reviews of books, films, theatre, art, etc. *Prerequisite* EN 270. 3 hours credit

EN 368. Introduction to Public Relations**D**

The course is designed to provide a general orientation to the professional responsibilities of a public relations practitioner. Special attention is paid to relations with the news media, forming and changing opinion, communications vehicles, acceptable and unacceptable PR practices, a theory of managing PR, some important legislation, and the Public Relations Society of America. 3 hours credit

EN 370. Reporting and Newspaper Writing I**A**

Emphasizes reporting skills and gathering of information for breaking/hard/spot news stories through interviews and public record research. Small group editing and discussion of legal and ethical issues which bear on print media. prerequisite EN 270 Intro. to Print Media or permission of instructor. 3 hours credit

EN 371. Reporting and Newspaper Writing II**B**

Reviews and expands reporting/writing skills; in-depth interviews and more extensive research. Peer editing groups, rewriting, and a continued examination of ethical and legal questions and the role of print media in society. prerequisite EN 370 or permission of the instructor. *3 hours credit*

EN 375. Writing for the Professions**A**

Focus on the development of students' ability to communicate in the business and professional world through the letter, memorandum, and in-house report. Emphasis on the importance of written communication as a tool for problem-solving in administrative and management settings. *3 hours credit*

EN 380. Film Silence to Sound**C**

An historical survey of feature narrative and dramatic films from the beginnings through the late 1930s, through screenings, lectures, discussions, and analysis of selected works. Filmmakers studied include Porter, Griffith, Von Stroheim, Eisenstein, Pudovkin, Lubitsch, Hitchcock, Lang, and Renoir. 4 hours credit

EN 381. Narrative Film After 1940**C**

An historical survey of feature narrative and dramatic films from 1940 through the present, through screenings, lectures, discussions, and analysis of selected works. Filmmakers studied include

Welles, Huston, Capra, Hitchcock, Kurosawa, Godard, Truffaut, Bunuel, Fellini, Antonioni, and Altman. 4 hours credit

EN 382. Nonfiction Film (Plus Lab)**C**

Screenings and discussions related to an examination of the central nonfiction or documentary films from 1895 to 1979, including *cinema verite* films, the ethnographic film, and the television report. The significance of these films will be analyzed in terms of approach, aesthetics, technique, and the cultural and sociopolitical contexts which affect their intentions and forms. 4 hours credit

EN 383. Film Theory**D**

Examination of philosophical theories of the nature of film, its relation to the other arts, and to the world. Different philosophical approaches to an adequate theory of film will be considered. Problems to be discussed include Is film necessarily more "realist" than other art forms? In what respects is film similar to other arts, and in what respects is it different? What characteristics make a film a good film? 3 hours credit

EN 384. Television Criticism**B**

Development of abilities to write about the media and to develop (through practice) the relevant skills and conceptual strategies for writing reviews, critical notes and essays, research studies and treatments, and other forms of critical writing about the media. Examination of aesthetic, ethical, ideological, and cultural principles of media criticism and application of these principles to major forms of the media general television programming, television news and news-magazines, documentaries. 3 hours credit

EN 388. Film and Literature**D**

Study of intersections of three forms of narrative, dramatic, and poetic expression. Students read and discuss basic theoretical essays, fictional works, plays, and poetry; view and analyze selected feature-length and short films. 3 hours credit

EN 390. Renaissance Literature**D**

A study of the most important writers of the European Renaissance in their cultural and historical contexts. The course is essentially comparatist, involving a number of approaches to the Renaissance, its major texts, and their implication. 3 hours credit

EN 391. Romanticism in World Literature**D**

An exploration of basic themes commonly associated with the concept of Romanticism as identified in literature from eastern and western cultures. 3 hours credit

EN 392. Asian Literature**D**

A study of selected works from the Chinese, Japanese, Indian, and Middle Eastern cultures, emphasizing those that make up their canon and which are recognized as having had a significant influence on Western culture. 3 hours credit

EN 393. Asian-United States Confrontations**D**

Comparative study of texts and cultural events involved in moments of confrontation; variable emphasis from offering to offering; includes Islamic, Indian, Chinese, and Japanese works. 3 hours credit

EN 395. Third World Literature**D**

Examination of works by women and men from countries that, by various definitions, are considered to be part of the Third World. Focus on cultural relativism and competing ideologies. 3 hours credit

EN 399. Special Topics**D**

Variable-content, junior-level course; topic announced in *Course Offerings Bulletin* each semester. 3 hours credit

UPPER DIVISION 400-499**EN 400. Advanced Writing****C**

Student writing based on study of traditional and modern rhetorical devices. Reading in various literary modes. Assignments in expository and narrative writing. 3 hours credit

EN 408. Arthurian Literature**C**

Study of the many works about King Arthur and his knights of the Round Table, extending from the 8th century to the present. 3 hours credit

EN 410. Chaucer**B**

Study of the *Canterbury Tales* and *Troilus and Criseyde*. Introduction to Middle English language and period and to significant Chaucerian scholarship. 3 hours credit

EN 411. Colloquium**A**

An unconventional discussion-meeting on varying topics in a small-group setting, developing and exposing principles for the study of texts. 1 hour credit

EN 412, 414. Shakespeare**A**

Study of Shakespeare's works 412, to 1600, emphasis on his growth as a dramatist; 414, from 1600 to end of his career. 3 hours credit each semester

EN 416. Elizabethan Drama**D**

The development of the English drama in the late 16th and early 17th centuries. The growth of drama from the medieval mystery, miracle, and morality plays through the works of Shakespeare's contemporaries. The plays in their cultural, historical, and artistic climates. 3 hours credit

EN 418. Restoration and Eighteenth Century Drama**D**

Study of the drama and theatre of Jonson, Dryden, Wycherley, Congreve, and Sheridan, with extension of their influence through the works of Wilde; focus on the major changes which the tenets of classicism brought to the English stage after Shakespeare. 3 hours credit

EN 420. Milton**C**

Milton's thought and art as expressed in *Paradise Lost*, *Paradise Regained*, *Samson Agonistes*, and selections from the minor poems and the prose. 3 hours credit

EN 422. English Novel I**C**

Study of representative novels of 18th and early 19th centuries. Particular attention to human and literary concerns which contribute to development of the novel. Writers include Richardson, Fielding, Sterne, and Austen. 3 hours credit

EN 424. English Novel II**C**

Study of such 19th and 20th century novelists as Dickens, Eliot, Hardy, Conrad, Lawrence, and Woolf. Special attention to form of the novel used to portray each writer's vision. 3 hours credit

EN 426. Major American Writers**A**

Close study of one or more writers and themes significant in American culture. 3 hours credit

EN 428. Major English Writers**B**

Study of the works of one English author or a few authors whose works, are related thematically, historically, generically, or on another literary basis. 3 hours credit

EN 440. Psychological Approaches to Fiction**D**

Applying psychological theories to fiction; usually Freud, Horney, Jung, Erikson, and transactional analysis. Rational and dangers of psychological criticism. 3 hours credit

EN 441. Literature and Philosophy**D**

Study of primary literary, philosophical, socio-economic, and political texts of France, England, and America. Focus on what these texts show about the relation between Western culture and power. 3 hours credit

EN 446. Contemporary Literary Theory**C**

A study of the most recent American and international literary critical thinking, emphasizing both theory and practice. Students are strongly advised to take EN 346 or EN 348 before enrolling for this course. 3 hours credit

EN 450. Seminar for Teachers of English**B**

Workshop designed to immerse students in the processes of preparing high school students to read drama, fiction, and poetry. Emphasis on pre-reading activities, construction of discussion questions and classroom activities, development of a two to three week unit for teaching literature, and participation in a micro teaching activity. prerequisite Permission of instructor. 3 hours credit

EN 455. Writing Tutors**A**

An eight-week training program preparing students to tutor writing in the college Learning Center for a minimum of four hours per week. prerequisite Permission of instructor. 3 hours credit

EN 460. Advanced Creative Writing Poetry**C**

Intensive critical discussion of student work. Readings in contemporary poetry. The orientation of the course is professional, and the students are expected to submit their work to periodicals for publication. Oral presentation of student work Prerequisite EN 260, 360 (or equivalent courses from another college), or permission of instructor. 3 hours credit

EN 461. Advanced Creative Writing Fiction**C**

Intensive critical discussion of student fiction. Readings in contemporary fiction. The orientation of the course is professional, and students are expected to submit their work to periodicals for publication. prerequisite EN 260, 360 (or equivalent courses from another college), or permission of instructor. 3 hours credit

EN 465. Variable Credit Internships**A**

Journalism and public relations internships. Interns work four hours per week for 1 hour credit, eight hours per week for 2 hours credit. prerequisite Permission of instructor. 1-2 hours credit

EN 466. Seminar in Journalism Topics**C**

A seminar on the function of print media from the perspective of writers and readers. Topics include access to print, the problem of objective reporting/writing, and the ethical problems and legal status of the print media. Topical readings as well as analytical papers and in-depth articles. prerequisite EN 371 or permission of instructor. 3 hours credit

EN 468. Public Relations Internships**A**

Open to students on a competitive basis. Students work in professional settings on or off campus, 12 hours per week. 3 hours credit

EN 470, 471. Journalism Seminar**A**

For editors and assistant editors on *The Leader*. Students enrolled must be approved as assistant editors by an appropriate section editor; editors must apply for and be elected to the position by the editorial board. Students not only fulfill all duties of their positions but also complete a project of lasting value to them and the newspaper (decided on in consultation with advisor and editorial board). Prerequisite EN 371. 3 hours credit each semester

EN 475. Technical Writing Internships**A**

Open to students who have completed EN 375 and 376. Students will work in professional settings on or off campus 12 hours per week. 3 hours credit

EN 490. Independent Study**A**

Study of a particular author or work. Periodic meetings with instructor and writing a substantial paper. Prerequisite Permission of instructor. 3 hours credit

EN 495. Satire

D

Study of what satire is and how it works. Close examinations of satirical writings from numerous cultures and historical periods. 3 hours credit

EN 499. Special Topics

A

A variable-content, senior-level course on topic announced in *Course Offerings Bulletin* each semester. 3 hours credit

(Environmental Sciences, see Special Studies, pg. 160)

FOREIGN LANGUAGES AND LITERATURES

Office: 2111 Fenton Hall

Howard B. Wescott, *Chairperson*

Students preparing for work in the foreign language field should strive toward language competence and, in addition, should build a background in a variety of subjects, particularly those relating to the cultural heritage of the foreign country whose language they are studying. Language instruction is offered in French, German, or Spanish. A major may be earned in French or Spanish, or a double major in any combination of these languages the student may choose. The requirements for the majors are as follows:

Major in French (B.A. Degree): 36 hours in French

	Hrs.
LF 315 French Masterpieces I	3
LF 317 French Conversation	3
LF 318 French Composition	3
LF 319 Survey of French Literature I	3
LF 320 Survey of French Literature II	3
LF 421 Diction	3
LF 423 Senior Seminar	3
LF 424 Stylistics	3
Plus 12 additional hours of 300 or 400 level French courses.	12
	36

Major in Spanish (B.A. Degree): 36 hours in Spanish

LS 315 Introduction to Hispanic Literature	3
LS 317 Spanish Conversation	3
LS 318 Spanish Composition	3
LS 319 Survey Spanish Literature I	3
LS 320 Survey Spanish Literature II	3
LS 324 Survey Span. - Amer. Literature I	3
LS 325 Survey Span. - Amer. Literature II	3
LS 423 Senior Seminar	3
LS 424 Stylistics	3
Plus 9 additional hours of 300 or 400 level Spanish courses.	9
	36

Minor in French or Spanish: A student may qualify for a minor in any one of the two major languages offered by the department. The minor requires 18 hours beyond the 116-level chosen under advisement and with departmental approval.

Majors are encouraged to travel, if at all possible, to a foreign country (France, Spain, or a country in Latin America) for a semester or even two semesters of study abroad in their junior year. This foreign travel and study at such schools as the University of Salamanca in Spain, or the University of Grenoble in France has proven enormously enriching for students who have participated in these overseas programs. Equally enriching have been the international study programs in Mexico and in the French speaking province of Quebec. International Education programs are not restricted to language majors and are available to College at Fredonia students in virtually every department to those who wish to avail themselves of the opportunity to pursue their studies at foreign institutions of distinction.

The student who wishes to work in international trade and business, in the diplomatic service, in government or international agencies, or social services should consider completing the appropriate concentration in International Service, Latin American Studies, or Social Work. For details on these concentrations consult the Special Studies section of the catalog.

Elementary and Early Childhood Education majors may earn a concentration in foreign languages. Consult the education department's catalog description for the course requirements of these programs.

Students who desire to teach French or Spanish in the secondary schools may obtain provisional certification by completing the program described above and the required courses in Professional Education. The procedure to be followed for admission to the professional sequence of courses is described on page 79.

All elementary and secondary education students seeking provisional certification in foreign languages must be interviewed by the department Screening Committee. Application should be made no later than Nov. 1 of the year in which the student will have earned 60 credit hours. See the department chairperson for details.

Cooperative Agriculture Program in Foreign Languages

Under this program a student majors either in French or Spanish at the College at Fredonia for three years and then completes the remaining two years at the New York State College of Agriculture and Life Sciences at Cornell University in one of six specializations in the program area of Applied Economics and Business Management. Refer to descriptions of this program on page 46.

Requirements for Transfer Credit

For a major, a limit of 12 transfer credits may be counted towards those required, i.e., a minimum of 22 hours must be taken in the department at the College at Fredonia.

For a minor, a limit of 9 transfer credits may be counted toward the 18 required, i.e., a minimum of 9 hours must be taken in the department at the College at Fredonia.

Notes:

1. Ordinarily one year of high school preparation in a foreign language serves as the equivalent of one semester of college language. At the discretion of the language instructor, students may be placed in a more or less advanced section of a language course than their high school credits would indicate, dependent upon the intensity of their preparation.
2. Unless otherwise specified all courses are conducted principally in the appropriate foreign language.
3. The department encourages students to participate in overseas programs in France, Germany, Spain, and other countries. Plans therefore should be initiated before the junior year, when students normally take advantage of this opportunity.

Foreign Language Scholarship

The Robert Rie Foreign Language Scholarships are awarded each year to a number of upper level undergraduate foreign language majors who demonstrate outstanding academic ability and are recommended by the foreign language staff to the chairperson of the Department of Foreign Languages and Literatures. Application information may be obtained from the department.

FL 100. The Nature of Language

D

An introduction to the manner in which language functions. Comparison of structure of English with other languages. Particular attention given to developing comprehension of how different languages express reality. Provides theoretical basis for study of foreign languages. In English.
3 hours credit

FL 205. European Short Fiction

D

Study of representative works of short fiction in Western literature from the Renaissance to the 20th century. Focuses on themes and on forms and techniques of narration. Works selected from Italian, Spanish, French, German, and Russian literature and read in English translation. May not be used to satisfy foreign language major requirements. prerequisite One college-level English or foreign literature course.
3 hours credit

FL 305. European Short Fiction

D

Same as FL 205, but open only to foreign language majors or others with consent of instructor. Works treated in the course from the student's major literature must be read in the original; a paper and an oral exam on these works will also be required in addition to the general requirements for FL 205. prerequisite One 300-level or above literature course in the student's major *3 hours credit*

FL 400. Special Topics in Foreign Languages

D

Special areas in foreign languages and literature not covered by regular courses. *Prerequisite* Permission of department. *1-3 hours credit*

FL 410. Directed Study

D

Individual supervised study of a particular area or topic in any of the department's language or literature offerings. Periodic meetings with instructor; writing a substantial paper. *prerequisite* Permission of department. *1-3 hours credit*

FRENCH

LF 115-116. Elementary French I, II

A

For students with no previous preparation. Study of fundamental speech patterns. Initial stress on listening comprehension and oral ability. Progressively greater emphasis on reading and writing skills. *3 hours credit each semester*

LF 215-216. Intermediate French I, II

B

LF 215 Continues the work required for increasing performance levels in the four skills of reading, writing, speaking, and understanding of the language. Regular language laboratory work for further reinforcement and drill. *Prerequisite* LF 116 or equivalent.

LF 216 Brings students to a level of competence in the language allowing them entry into upper level courses. Regular integrated language laboratory drills and tests. Adult reading materials, adult speaking levels. *prerequisite* LF 215 or equivalent. *3 hours credit each semester*

LF 305-306. French for Business I, II

D

LF 305 Designed to reinforce student's language skills so as to permit him/her to use French meaningfully *in* the business world. Introduction to basic geography of France and French social institutions as they affect economic life of the nation. Study of commercial vocabulary, introduction to business correspondence and business practices.

LF 306 Continues the work of LF 305 *in* reinforcing the student's language skills *in* the context of the business world, as well as exploring the impact of various areas of French culture on the economic life of the country. *3 hours credit each semester*

LF 310. The Literature and Culture of Quebec

D

An exploration of Quebec's cultural uniqueness through the literature that has played a central role in defining it. The historical and political events that have influenced the development of Quebec literature and culture will also be examined. Review of Separatist movement included. *3 hours credit*

LF 315-316. French Masterpieces I, II

B

Readings from 17th century through present. Representative works in novel, drama, and poetry. Oral and written reports. *prerequisite* LF 216 or equivalent. *3 hours credit each semester*

LF 317. French Conversation

B

Oral-aural drills, conversational exercises; practice in understanding and speaking French. *prerequisite* LF 216 or equivalent. *3 hours credit*

LF 318. French Composition

B

Syntactical patterns of French, vocabulary building, translation, and free composition. Useful techniques of composition, problems of translation and questions of style discussed. *prerequisite* LF 216 or equivalent. *3 hours credit*

LF 3 19-320. Survey of French Literature I, II**B**

History of principal movements and writers studied in light of historical and social backgrounds. Lectures in French. Student reports. prerequisite LF 316 or equivalent. 3 hours credit *each semester*

LF 322. French Civilization and Culture**C**

A comprehensive introduction to the physical and human aspects of French geography. Course follows chronological sequence of the centuries. Topics include Romanesque and Gothic architecture, the chateaux of the Loire, Versailles, Le Louvre, the history of French art, the age of reason, the establishment of the Republic. In English. 3 hours credit

LF 323. France Today**D**

France today is a country struggling with the tensions of social and economic modernization. The subject matter, therefore, will be actual and current in an effort to understand the broad sweep of social, economic, political, and cultural changes in post-war France. In English. 3 hours credit

LF 341. Le Grand Siecle**D**

Detailed study of 17th century French classicism, its formation, flowering. Student reports, discussions. *Prerequisite* LF 316 or equivalent. 3 hours credit

LF 351. The Enlightenment**D**

Major works of 18th century French literature; -emphasis on Montesquieu, Voltaire, Diderot, Rousseau, Marivaux, and Beaumarchais. prerequisite LF 316 or equivalent. 3 hours credit

LF 361. Contemporary French Literature**D**

Novel and theater since Proust. Emphasis on post-1940 trends existentialism, the New Novel and Theatre of the Absurd. *Prerequisite* LF 316 or equivalent. 3 hours credit

LF 378. Canada Today**D**

A look at the history, politics, culture, and geography of Canada and an analysis of contemporary issues affecting Canada and its neighbors. 3 hours credit

LF 417. Romanticism and Realism**D**

Detailed study of literary movements and major writers of 19th century. *Prerequisite* LF 316 or equivalent. 3 hours credit

LF 421. Advanced French Pronunciation and Diction**B**

Study of phonetics. Intensive drill in intonation and articulation. *Prerequisite* Any LF 200-level course. 3 hours credit

LF 422. Advanced French Conversation**D**

Intensive practice in spoken French. prerequisite LF 317 and 421 or permission of instructor. 3 hours credit

LF 423. Senior Seminar**B**

Allows qualified upper-level students to supplement course offerings or probe more deeply into areas of their own interest. 3 hours credit

LF 424. Stylistics I**B**

To give feeling for French style, shades of meaning, and mastery of stylistic difficulties not taken up in more elementary courses. Study of classic French prose; translations and free composition. *Prerequisite* LF 318 or equivalent. 3 hours credit

GERMAN**LG 1 15-116. Elementary German I, II****A**

For students with no previous preparation. Study of fundamental speech patterns. Initial stress on listening comprehension and oral ability. Progressively greater emphasis on reading and writing skills. 3 hours credit *each semester*

LG 215-216. Intermediate German I, II**B**

LG 215 Continuation of oral and aural training; broadens reading and listening experience. prerequisite LG 116 or equivalent.

LG. 216 Increases student's ability to read, write, understand, and speak German through written analysis and discussion of German literary and expository works.

prerequisite LG 215 3 hours credit *each semester*

LG 317. German Conversation**B**

Conversational exercises reports, discussions. Readings from newspapers and cultural texts stressing contemporary colloquial *German* Emphasis on idioms. *Prerequisite* LG 215 or equivalent. 3 hours credit

LG 318. German Composition**B**

Practice in writing colloquial and formal German. Emphasis on idioms; style and structure in dialogue, descriptive and critical writing. prerequisite LG 215 or equivalent. 3 hours credit

LG 323. Germany Since 1918**D**

Cultural aspects of the Weimar Republic, the Third Reich, and contemporary Germany. Guest lecturers, readings, and films. In English. 3 hours credit

LG 387. German Songs**B**

Literary background and analysis of selected *Lieder*. In English *Corequisite* MU 387. 1 hour credit

SPANISH**LS 115-116. Elementary Spanish I, II****A**

LS 115 For students with no previous preparation. Study of fundamental speech patterns. Initial stress on listening comprehension and oral ability. Progressively greater emphasis on reading and writing skills.

LS 116 Continuation of LS 115. Further introduction to fundamental speech patterns. For students with one semester of college-level Spanish or equivalent. Stress on listening comprehension, oral ability, reading, and writing skills. 3 hours credit *each semester*

LS 215-216. Intermediate Spanish I, II**A**

Development of skills to understand written and spoken Spanish. Readings and grammar review. prerequisite LS 116 or equivalent

LS 216 A continuation of LS 215 with gradually added emphasis on reading *Prerequisite* LS 215 or equivalent. 3 hours credit *each semester*

LS 304. Latin American Literature of Protest**D**

Survey of various forms of protest in 20th century Latin America. Notable works of fiction, poetry, and nonfiction prose on economic, political, and social problems affecting region. May be used to satisfy major requirements with departmental approval. In English. 3 hours credit

LS 305. Spanish for Business**D**

Grammar review, readings, translation, free composition, oral practice. Spanish for the business world letters, reports, advertising, commercial documents, cultural differences. prerequisite LS 215 or equivalent. 3 hours credit

LS 315. Introduction to Hispanic Literature**B**

Readings from modern Spanish and Spanish American novels, drama, poetry, and essay.. Oral and written reports. *Prerequisite* LS 216 or equivalent. 3 hours credit

LS 316. Hispanic Masterpieces**D**

Study and analysis of selected unabridged modern works from Spain and Spanish-America. prerequisite LS 216 or equivalent. 3 hours credit

LS 317. Spanish Conversation**A**

Oral-aural drills, conversational exercises to provide practice in understanding and speaking Spanish. Emphasis on improving pronunciation and fluency. *Prerequisite* LS 216 or equivalent. 3 hours credit

LS 318. Spanish Composition**B**

Writing colloquial and formal Spanish. Translations and free compositions. *Prerequisite* LS 216 or equivalent. 3 hours credit

LS 319-320. Survey of Spanish Literature**B**

Principal literary movements and writers studied against historical, social, and cultural backgrounds. Selected masterpieces. Outside readings. *Prerequisite* LS 315 or equivalent. 3 hours credit *each semester*

LS 322. Modern Spain**D**

Main cultural developments of 19th and 20th century history, social customs, political movements, art. May be used to satisfy major requirements only with departmental approval. 3 hours credit

LS 323. Civilization and Culture of Latin America**D**

Main cultural developments history, social customs, political movements, economic geography, art. *Prerequisite* LS 216 or equivalent. 3 hours credit

LS 324-325. Survey of Spanish-American Literature**B**

Principal literary movements in Spanish America Colonial period to Independence; 19th century to present. *Prerequisite* LS 315 or equivalent. 3 hours credit *each semester*

LS 326. Modern Hispanic**D**

Course is designed to help the student understand the different cultural values and attitudes of our Spanish speaking neighbors in this hemisphere. An appraisal of different cultural manifestations, primarily in literature and the arts, depicting various aspects of Hispanic American society family life, education, economic problems, national and local politics, religion, militarism, social problems, demographic changes. 3 hours credit

LS 401. Imperial Spain**D**

Analysis of main currents of Spanish culture in Siglo de Oro through readings in history, sociology, and literature. *Prerequisite* LS 319 or equivalent. 3 hours credit

LS 417. Contrastive Analysis of English and Spanish**D**

Comparison of grammatical structures and phonological systems' of English and Spanish. Special attention to areas which create particular difficulty for speakers of one language who attempt to learn the other. 3 hours credit

LS 420. Twentieth Century Spanish Literature**D**

Spanish literature from Generation of 1898 to present. *prerequisite* LS 320 or equivalent. 3 hours credit

LS 421. Advanced Spanish Phonetics and Diction**D**

Systematic study of Spanish phonetics and diction. Pronunciation drills, exercises in sound discrimination and transcription. Strongly recommended for secondary education majors. 3 hours credit

LS 423. Senior Seminar**B**

Open only to seniors majoring in Spanish. Allows majors to supplement course offerings or probe more deeply into areas of their own interest. 3 hours credit

LS 424. Stylistics**B**

Study of literary techniques. Direct composition in Spanish to encourage incorporation of these devices into student's own writing. Prerequisites LS 315, and 318 or equivalents. 3 hours credit

LS 425. Spanish-American Fiction**D**

Prose fiction in Spanish America with special emphasis on 20th century authors. Prerequisite LS 324-325 or equivalent'- 3 hours credit

(French, see Foreign Languages and Literatures, pg. 91)

GEOSCIENCES

Office: 106 Houghton Hall

Walther M. Barnard, *Chairperson*

The Department of Geosciences offers five degree programs.

The B.S. degree program in Geology is intended primarily for students planning to undertake employment or graduate study in geology or who desire a liberal arts education with emphasis in geology.

Most geologists are employed by private industry - in petroleum, mining, cement, ceramic, sand and gravel, and in environmental and engineering firms. Many work for various federal agencies and the 50 state geological surveys, or are self-employed, often working as consultants. Colleges and universities offer teaching and/or research positions.

The B.S. degree program in Geochemistry, an interdisciplinary program with the Department of Chemistry, prepares the student to undertake employment or graduate study in this field. Geochemists are employed in the mineral resource industries, Earth and space sciences, environmental sciences, and several branches of chemical science and technology. In addition to careers in industry, geochemists are employed by consulting firms, academic institutions, and the federal government.

The B.S. degree program in Geophysics, a joint program with the Department of Physics, is intended primarily for students interested in pursuing a graduate program or employment in geophysics (or geology).

Career opportunities exist within industries, engineering consulting firms, and the federal government dealing with subjects as diverse as energy, waste management, the environment, natural resources availability, weather forecasting, the prediction of climate change, earthquakes, volcanic eruptions, and planetology. Academic institutions provide teaching and research opportunities.

The B.A. degree program in Earth Sciences is intended primarily for students who want a liberal arts education with a broad emphasis in the several subdisciplines that constitute the earth sciences. It is useful to those who have career goals in production, technical services, information systems/processing, marketing/sales, administration and/or finance, rather than goals of becoming professional scientists.

The B.S. degree program in Earth Sciences is intended for those students who plan to teach earth science in secondary schools. It includes the fundamental courses in geology, meteorology, astronomy, and oceanography which constitute the "content" of earth science, and the necessary professional education courses.

Students planning to pursue a career in the earth sciences as professional scientists should earn one of the B.S. degrees in Geology, Geochemistry, and Geophysics rather than the B.A. or B.S. degrees in Earth Sciences, because the former require a more rigorous background in physics and mathematics which is needed to pursue graduate studies in the geosciences or employment as professional scientists.

Teacher Certification: Students who desire to teach earth science in secondary schools may obtain provisional certification by completing the B.S. degree program in Earth Sciences with its required professional courses in education (ED 101, 224, 250, 305, 349, 419, 430). Also required is one year of college-level study of a language other than English, or the equivalent.

Minor in Geological Sciences: 24 hours in geosciences, including GS 120, 130, 165, 210, and four 4-hour courses, as advised, from the 200300-400 levels.

Minor in Earth Sciences: 25 hours in geosciences, including GS 120, 130, 150, 160, 165, 180, 210, 215, and 330.

Cooperative Engineering and Agriculture: The Department of Geosciences participates in the Cooperative Agriculture and the Cooperative Engineering Programs described on pages 46 and 82, respectively.

Students are encouraged to participate in the activities of the Geology Club.

The department awards textbook scholarships for academic achievement each semester and annually presents the MacDiarmid Award to the outstanding graduating senior, and the Mark D. and April Hoerner Orgren Scholarship.

Explanation of geosciences (GS) course numbers: 100-level courses are introductory courses without prerequisites; 200-level courses are general service courses with prerequisites; 300-level courses are required for one or more of the major programs in the geosciences; 400-level courses are elective courses intended for majors in the geosciences.

Laboratory credit: One credit of laboratory work includes three clock hours in the laboratory per week. Four-credit hour courses in geosciences include one credit hour of laboratory work.

**Requirements for the
B.S. Degree in Geology:**

Core Program (41 hours in geosciences; 24 hours in related disciplines):

GS 120	Map Reading and Interpretation (Lab)	1
GS 130	Mineral, Rock, and Fossil Identification (Lab)	1
GS 165	Physical Geology	3
GS 210	Historical Geology	3
GS 300	Crystallography	4
GS 310	Field Geology	3
GS 330	Geomorphology	4
GS 340	Mineralogy	4
GS 345	Paleontology	4
GS 350	Petrology	4
GS 355	Project in Geosciences	2
GS 365	Stratigraphy	4
GS 370	Structural Geology	4
MA 122-123	University Calculus I & II	8
CH 115-116	General Chemistry I & II and	8
CH 125-126	(Labs)	
PH 230-231	General Physics I & II and	8
PH 232-233	(Labs)	
	A course in computer science, as part of GCP	
	A course in scientific writing, as part of GCP	

GS 475 Sedimentology and Sedimentary Petrography, is strongly recommended for students with interests in sedimentary rocks and processes.

Requirements for the B.S. Degree in Geochemistry:

Core Program (26 hours in geosciences; 29 hours in chemistry; 16 hours in related disciplines):

GS 120	Map Reading and Interpretation (Lab)	1
GS 130	Mineral, Rock and Fossil Identification (Lab)	1
GS 165	Physical Geology	3
GS 300	Crystallography	4
GS 320	Geochemistry	3
GS 340	Mineralogy	4
CIS 350	Petrology	4
GS 355	Project in Geosciences	2

GS XXX	Geology elective	4
CH 115-116	General Chemistry I & II and CH 125-126 (Labs)	8
CH 215-216	Organic Chemistry I & II and CH 225-226 (Labs)	8
CH 290	Introduction to Research (recommended)	1
CH 315-325	Physical Chemistry (Lecture and Lab)	4
CH 317-318	Analytical Chemistry I & II and CH 327-328 (Labs)	9
PH 230-231	General Physics I and II and PH 232-233 (Labs)	8
MA 122-123	University Calculus I & II	8

A course in scientific writing, as part of GCP (Completion of CH 225, 226, and 290 Introduction to Research fulfills requirement).

A course in computer science, as part of GCP

Requirements for the B.S. Degree in Geophysics:

Core Program (26 hours in geosciences; 17 hours in Physics; 26 hours in related disciplines):

GS 120	Map Reading and Interpretation (Lab)	1
GS 130	Mineral, Rock, and Fossil Identification (Lab)	1
GS 165	Physical Geology	3
GS 215	Minerals and Rocks	4
GS 310	Field Geology	3
GS 335	Geophysics	4
GS 355	Project in Geosciences	2
GS 370	Structural Geology	4
GS XXX	Geology elective	4
PH 230-231	General Physics I & II and PH 232-233 (Labs)	8
PH 321	Engineering Mechanics I	
	or	
PH 330	Themodynamics	
	or	3 or 4
PH 331	Theoretical Mechanics	
	or	
PH 333	Electricity and Magnetism	
PH XXX	Electives from PH 321 through PH 479	6
MA 122-223	University Calculus I, II, III	12
MA 224	Differential Equations	3
CS XXX	Any course in computer science (pref. CS 104)	3
CH 115-116	General Chemistry I & II and CH 125-126 (Labs)	8

A course in scientific writing, as part of GCP.

GS 330 Geomorphology, is strongly recommended.

Requirements for the B.A. Degree in Earth Sciences:

Core Program (35 or 36 hours in geosciences; 22 to 24 hours in related disciplines):

GS 120	Map Reading and Interpretation (Lab)	1
GS 130	Mineral, Rock, and Fossil Identification (Lab)	1
	<i>Any two of the following:</i>	6
GS 150	Moons and Planets	
GS 160	Oceanography	
GS 170	Stars and Galaxies	

GS 180	Weather and Climate	
Plus:		
GS 165	Physical Geology	3
GS 210	Historical Geology	3
GS 215	Minerals and Rocks	4
GS 330	Geomorphology	4
GS 355	Project in Geosciences	2
GS 365	Stratigraphy	4
GS 370	Structural Geology	4
GS XXX	Any Geology elective 3 or 4	
CH 115-116	General Chemistry I & II and CH 125-126 (Labs)	8
PH 230-231	General Physics I & II and PH 232-233 (Labs)	
	or	8
PH 121-122	College Physics I & II and PH 123-124 (Labs)	
	MA elective	3 or 4
	MA any course in calculus	3 or 4

A course in scientific writing, as part of GCP

A course in computer science, as part of GCP

Requirements for the B.S. Degree in Earth Sciences:

Core Program (29 hours in geosciences; 30 hours in education; 22 to 24 hours in related disciplines).

GS 120	Map Reading and Interpretation (Lab)	1
GS 130	Mineral, Rock, and Fossil Identification (Lab)	1
GS 150	Moons and Planets	3
GS 160	Oceanography	3
GS/65	Physical Geology	3
GS 180	Weather and Climate	3
GS 210	Historical Geology	3
GS 215	Minerals and Rocks	4
	Any two GS 300/400 level courses as advised	8
ED 101	Freshmen Field Experience	0
ED 224	Adolescent Development	3
ED 250	Introduction to the Exceptional Learner	3
ED 305	Multicultural Education	3
ED 349	Educational Psychology	3
ED 419	Secondary School Methods	3
ED 430	Student Teaching in Secondary School	15
CH 115-116	General Chemistry I & II and CH 125-126 (Labs)	8
PH 230-231	General Physics I & II and PH 232-233 (Labs)	
	or	8
PH 121-122	College Physics I & II and PH 123-124 (Labs)	
	MA elective	3 or 4
	MA any course in calculus	3 or 4

A course in scientific writing, as part of GCP

A course in computer science, as part of GCP

Also required is one year of college-level study of a language other than English, or the equivalent.

GS 100. Earth Sciences : **A**

An introduction to meteorology, astronomy, physical geology, and historical geology. Not open to students who have passed GS 165. Lectures. 3 hours credit

GS 105. Encounter with the Earth : **A**

Introduction to limits placed on humans by distribution and character of geological materials and effects of geological processes. The human's role as a geological agent. 3 hours credit

GS 120. Map Reading and Interpretation : **A**

Use of topographic maps, air photos, and geologic maps to interpret earth processes, history, and structure. Supplements GS 165, but may be taken independently. No earth science background required. 1 hour credit

GS 130. Mineral, Rock and Fossil Identification : **A**

Laboratory introduction to earth materials; the development of skills in identifying minerals, rocks and fossils using simple diagnostic tests. Some discussion of the origin of specimens. Supplements GS 165, but may be taken independently. No prerequisites. 1 hour credit

GS 140-149. Mini Courses in Geosciences : **A**

A series of five-week introductory courses exploring topics in the geological sciences. Any three fulfill a GCP Part IIA science requirement.

- 141 Age of Dinosaurs
 - 142 Drifting Continents
 - 143 Evolution of Life
 - 144 Geology of National Parks
 - 145 Geology of New York State
 - 146 Great Ice Age
 - 147 Shooting Stars
 - 148 Trembling Earth
 - 149 Volcanoes
- 1 hour credit each

GS 150. Moons and Planets : **B**

Introduction to the evolution and properties of the planets, asteroids, comets, and other members of the solar system; includes an historical review of models of the solar system. 3 hours credit

GS 160. Oceanography : **B**

Origin of the oceans, chemical and physical properties of sea water, circulation of the oceans, waves, tides, shoreline processes, marine biology, and the productivity of the ocean. 3 hours credit

GS 165. Physical Geology : **A**

An introduction to earth materials (minerals, rocks, soils), Earth's structure, geological processes in operation on and beneath the surface of the earth, and techniques of dating geologic events. Lectures supplemented with field work. High school background in earth sciences not required. Labs (GS 120 and GS 130) required of majors in geosciences only. 3 hours credit

GS 170. Stars and Galaxies : **B**

Properties and evolution of stars; description and origin of galaxies and the known universe. 3 hours credit

GS 180. Weather and Climate : **B**

Introduction to the transitory and long-term physical, chemical, and dynamic states of the atmosphere, measurement of weather factors, weather forecasting, regional climates, climatic change, weather and climate modification, and practical aspects and applications of weather and climate. 3 hours credit

GS 205. Global Future**B**

(Now offered as SS 205; see page 168)

GS 210. Historical Geology**B**Physical history of the earth in relationship to orderly development of life throughout geological time. Lectures. *Prerequisite* GS 165. 3 hours credit**GS 215. Minerals and Rocks****C**Theory, geological occurrence, and identification of the common minerals and rocks. Laboratory work also includes a brief introduction to methods using the petrographic microscope. *prerequisites* GS 100 or GS 165; GS 130. 4 hours credit**GS 220. National Parks Field Geology****C**A three-week field trip to selected western National Parks. Topics studied include volcanism, structural geology, glaciation, geomorphology, and earth history as demonstrated in the rocks of Rocky Mountain, Tetons, Yellowstone, and Glacier National Parks. *prerequisite* GS 140 (National Parks). Offered in alternate summers. 3 hours credit**GS 230. Vanishing Earth Resources****D****Resources**Geologic and geographic distribution of mineral resources on a global scale. Metals, non-metals, fossil fuels and water resources and their exploitation are emphasized. Historical, political and economic aspects of mineral resource development are considered. *prerequisite* 3 hours credit of college geology. 3 hours credit**GS 240. Writing in the Geosciences****B****Geosciences**Introduction to scientific writing and research methods. Effective use of library resources, field and laboratory notes, and computer methods, including word processing, spreadsheets, and database programs. Class work consists of writing research papers on geological topics, criticizing and evaluating scientific writing, and participating in local field trips. *prerequisite* 3 hours credit of college geology. 3 hours credit**GS 300. Crystallography****B**

An introduction to descriptive crystallography and to optical and x-ray methods of analysis of crystalline materials. Elements of external and internal symmetry; crystal classification, morphology, and projections. Principles and practical use of the petrographic (polarizing) microscope, oil immersion techniques, and x-ray diffractometer in determination of crystalline properties and mineral identification. Lectures and laboratory. No prerequisites. 4 hours credit

GS 310. Field Geology**C**Two-week mapping course immediately following end of spring semester. Held at Catskill, N.Y. *Prerequisite* GS 370. 3 hours credit**GS 320. Geochemistry****C**Scope, literature, and history of geochemistry Principles and applications for inorganic geochemistry, including cosmochemistry; atoms; ionic substitution in crystals; radioactivity and dating; chemical differentiation of solar system and Earth; acids, bases, and salts; mineral solubility; thermodynamics; mineral stability diagrams; oxidation-reduction reactions; isotope fractionation; mixing and dilution; chemical kinetics Applications to global problems. *prerequisite* GS 340 and one year of chemistry or permission of department. 3 hours credit**GS 325. Geology of North America****D****America**Overview of geological development of North American continent that led to present topographic and geologic features. Examines evidence from stratigraphy, paleontology, crystalline basement geology, and geomorphology characteristic of major physiographic provinces. Team-taught. *prerequisites* One semester each of GS 350, 365, and 370, or permission of department. 3 hours credit

GS 330. Geomorphology**B**

Geomorphic processes; relating topographic features to underlying rocks and structures and to processes of erosion, deposition, and earth movements. Lectures and laboratory supplemented by field work. Four or more Saturdays required for field problem. Use of computer for statistical analysis. *Prerequisite* GS 165; 120. *4 hours credit*

GS 335. Geophysics**C**

Emphasis on how problems dealing with the shape, mass, structure, composition, and tectonic history of the Earth can be resolved using such methods of geophysics as gravity, magnetics, and seismology. Lectures, laboratory, and field work. *Prerequisite* GS 165. *4 hours credit*

GS 340. Mineralogy**B**

An introduction to chemical, physical, determinative and descriptive mineralogy. Crystal chemistry, physical properties, geologic occurrence, significance and characteristic properties of minerals. Lectures and laboratory supplemented with one field trip. *Prerequisites* GS 300; *Pre- or corequisite* CH 115. *4 hours credit*

GS 345. Paleontology**B**

Principles of paleontology; biologic relationships of fossil organisms, particularly ancient invertebrates. Emphasizes evolutionary principles and trends. Field work supplements lecture and laboratory. *Prerequisite* GS 210. *4 hours credit*

GS 350. Petrology**B**

Lecture emphasis on problems and theories involved with origin of rocks. Laboratory stresses use of petrographic microscope for identification, description, and analysis of rock materials. Lectures and laboratory supplemented by field work. *Prerequisite* GS 340. *4 hours credit*

GS 355. Project in Geosciences**A**

Student-preparation of a written paper and oral presentation based on directed study or current research and methods of investigation of geoscientific problems. Two credits are required of majors in geosciences, except those pursuing the B.S. degree in Earth Science, for graduation. *prerequisite* Senior standing in geosciences. *1-2 hours credit*

GS 365. Stratigraphy**B**

Principles of stratigraphy with examples of stratigraphic successions from various sedimentary basins around the world. Course emphasizes techniques of basin analysis and mechanisms of basin formation. Laboratory involves a stratigraphic field project. *prerequisite* GS 165; 120, 130, 210. *4 hours credit*

GS 370. Structural Geology**B**

Theoretical aspects of stress and strain as applied to natural rock systems; description and origin of rock structures in Earth's crust. Laboratory work stresses structural interpretation of geologic maps. Field work supplements lectures and laboratory. *Prerequisite* GS 165; 120. *4 hours credit*

GS 410. Directed Study**A**

Independent study and research in areas beyond formal courses. *prerequisite* At least 18 hours in geosciences or permission of department. *-3 hours credit each semester*

GS 440. Environmental Geology**D**

Application of geology to environmental problems such as the energy crisis, urban development, land use, waste disposal, construction practice, and the human role as a geologic agent. Two lectures and laboratory. *prerequisite* GS 165. *3 hours credit*

GS 445. Geosciences Internship**A**

Approved work-training experience with state or federal agency, museum, or industrial firm. *prerequisites* Senior standing and permission of department. *115 hours credit*

GS 450. Hydrogeology**C**

Hydrologic problems are analyzed by organizing information into a water budget and then quantifying the variables in the water budget equation. Common hydrologic variables include precipitation, evaporation, transpiration, stream flow, infiltration and ground water. Ground water is emphasized. Lectures supplemented by field work, lab measurements, and computer modeling.
Prerequisite GS 165. 4 hours credit

**GS 455. Laboratory Supervision
in Geosciences**

A

Students serve as laboratory assistants under supervision of faculty member. Students selected by department after completing application form (available from chairperson). Four hours of work per week expected for each hour of credit elected; may be taken more than once. Does not count toward major requirements. prerequisite Permission of chairperson. *1-3 hours credit each semester*

GS 460. Ore Deposits

D

Introduction to the types, world-wide distribution, and origin of metallic and nonmetallic economic ore deposits. Additional topics include field exploration methods, evaluation of ore bodies, and environmental factors in ore extraction. Laboratory work includes identification and description of common ore minerals and assemblages using hand specimens and petrographic microscopy.
Prerequisite GS 350. 4 hours credit

GS 465. Paleoenvironments

D

Interpretation of ancient environments using fossils and sedimentary structures. Study of depositional events, paleoecology, and fossilization processes emphasized. Combined lecture and seminar format. *Prerequisites* GS 210, 365 3 hours credit

GS 470. Planetary Geology

D

Origin and description of the solar system using data from Earth-based telescopes and satellites, interplanetary space probes, meteorites, and lunar samples. Emphasis on nature and origin of planetary interiors, surfaces, and atmospheres *Prerequisite* GS 350. 3 hours credit

**GS 475. Sedimentology and
Sedimentary Petrography**

D

Physical and compositional properties of sedimentary rocks; in particular, the processes of sedimentation and the various controls on the composition of sedimentary rocks. Laboratory emphasizes techniques employed in the petrographic analysis of sedimentary rocks. Lectures and lab. *Prerequisite* GS 350. 4 hours credit

**GS 480-489. Special Topics in
Geosciences**

A

Special areas of geosciences not covered by regular courses. prerequisite Permission of department. *1 to 4 hours credit each semester*

HEALTH, PHYSICAL EDUCATION, ATHLETICS, AND DANCE

Office: 116 Dods Hall

Everett J. Phillips, *Chairperson*

Thomas E. Prevet, *Director of Athletics*

The Department of Health, Physical Education, Athletics, and Dance offers both required and elective courses.

A student may elect to enroll in physical education 100-level courses with a maximum of 4 credit hours to be used as elective credit toward a degree. Any additional credits earned in physical education 100-level courses will be in excess of the normal 120 hours required for most degrees.

Physical Education 100 level courses:

Individual and Dual Activities:

		Hrs.
PE 109	Badminton-Basic	1
PE 111	Badminton-Intermediate	1
PE 120	Ice Skating-Basic	1
PE 116	Golf-Basic	1
PE 121	Ice Skating-Intermediate	1
PE 124	Basic Aerobics	1
PE 125	Advanced Aerobics	1
PE 126	Jogging	1
PE 128	Racquetball-Basic	1
PE 129	Racquetball-Intermediate	1
PE 131	Self-Defense	1
PE 132	Skiing	1
PE 133	Slimnastics	2
PE 134	Tennis-Basic	1
PE 125	Tennis-Intermediate	1
PE 138	Volleyball	1
PE 139	Weight Training	1

Aquatics:

		Hrs.
PE 102	Learn To Swim	1
PE 103	Intermediate Swimming	1
PE 104	Advanced Swimming	1
PE 105	Swimming & Fitness	1
PE 106	Lifeguard Training	2
PE 107	WSI	2
PE 108	Basic Scuba	2

Basic: For individuals having little or no knowledge or skill in the activity. Emphasis is on the development of basic skills and knowledge of the sport.

Intermediate or Advanced: For students who have developed the basic skills and knowledge of the sport. Emphasis in advanced classes is placed on more advanced skills and strategy.

New York State Secondary School Coaching Certification: Students wishing to coach in New York State secondary schools are advised to enroll in the following courses:

PE 210. Philosophy, Principles

B

and Organization of Interscholastic Athletics in Education

A review of basic philosophy and principles of athletics and their general relationship to the secondary educational programs of New York State. Understanding of local, state, and national regulations related to athletics, legal considerations, personal standards for the coach. One of several courses designed to meet state certification for interscholastic coaching. 2 hours credit

PE 211. The Psychology of Coaching**B**

A course for understanding the application of basic psychological principles to the coaching of the individual athlete, or teams, in the competitive environment. One of several courses designed to meet state certification for interscholastic coaching. *Prerequisite* PY 129. 2 hours credit

PE 215. Principles of Athletic Injury Care**B**

Study of prevention and recognition of injuries commonly associated with athletic competition. Includes the study of anatomy and physiology involved in injuries. One of several courses designed to meet state certification for interscholastic coaching. *Prerequisite* HE 115 or First Aid Card. 2 hours credit

PE 216. Athletic Movement and Conditioning**B**

Basic course in application of fundamental principles of mechanics and physics, including motion, equilibrium, and leverage, to body movement and human performance in athletic competition. One of several courses designed to meet state certification for interscholastic coaching. 2 hours credit

PE 221. Coaching Techniques**B**

A course designed to introduce the prospective coach to the basic skills, strategies and coaching techniques required in organizing a particular sport. While this course is one of several courses designed to meet state certification for interscholastic coaching, the student is expected to have completed all other parts of the requirement before enrolling in PE 221. 2 hours credit

DANCE**Concentration**

A concentration, designed in consultation with a dance faculty member, to supplement a student's major or fulfill an interest in the art of dance.

A. (11 hours) DA 105, 211, 311, 363, 364

B. (3 hours) MU 101.

C. (8 hours) To be selected from DA 106, 121, 221, 222, 231, 241, 321, 341-01, 341-02, 341-03, 461 or 561. A course in theatre history or music history is strongly recommended.

DA 105. Folk Dance**B**

Designed to cover the basics of folk dancing in many countries of the world. 1 hour credit

DA 106. Square Dance**B**

An introductory course for the beginning square dancer. Emphasis is on modern square dancing, although other forms are covered. 1 hour credit

DA 111. Dance Fundamentals**B**

Introductory course in modern dance for the novice, covering the Humphrey-Weidman, and Graham techniques. Attendance at all dance concerts on campus required. 2 hours credit

DA 121. Beginning Tap Dance**B**

A introductory course in tap dance. Tap shoes required. 2 hours credit

DA 211. Dance II**B**

Modern dance technique class for the student who has had DA 111 or permission of instructor. Martha Graham and Paul Sanasardo techniques covered. Outside practice strongly recommended. Attendance at all dance concerts on campus required. prerequisite DA 111 or permission of instructor. 2 hours credit

DA 221. Beginning Ballet**B**

A beginning class in classical ballet technique. Strongly recommended for Musical Theatre majors. Attendance at all dance concerts required. 2 hours credit

DA 222. Intermediate Ballet**C**

A continuation of the classical ballet technique offered in DA 221 with special attention to alignment, execution and mastery of the classical movement repertoire. Strongly recommended for Musical Theatre majors. Attendance at all dance concerts on campus required. *Prerequisite* DA 221. 2 hours credit

DA 231. Afro-Caribbean Dance I**C**

An introductory course in the structure and design of African and Caribbean dance techniques. This course will illustrate the linkage between African and Afro-American dance, music, and rhythmic styles. 2 hours credit

DA 241. Improvisation**C**

This course involves creative movement problem-solving through the study of basic elements in dance and choreography. The class will perform studies ranging from human emotion to abstract shape and design. Attendance at some campus productions is required. *Prerequisite* DA 111 2 hours credit

DA 311. Dance III**B**

Continuation of DA 211 for intermediate dancer. Humphrey-Weidman and Luigi jazz techniques covered. Outside practice strongly recommended. Attendance at all dance concerts on campus required. *Prerequisite* DA 211. 2 hours credit

DA 321. Dance for the Musical Theater**C**

Designed to familiarize the intermediate dancer with the techniques of musical theatre ballet, jazz, and tap dance. Films and video tapes will be utilized. Dances for musicals will be taught. *Prerequisite* DA 121,211. 3 hours credit

DA 341. Selected Topics in Dance**A**

Independent Study in dance-related topics.

01 1 hour credit

02 2 hours credit

03 3 hours credit

DA 353. Dance History**D**

The history and philosophy of dance from ancient times until the present. Also some examination into the criticism and evaluation of dance. Attendance at all dance concerts on campus required. 3 hours credit

DA 363. Choreography I**B**

Introductory course in dance composition covering such topics as space, design, rhythm, dynamics, sensation, and form. Attendance at all dance concerts on campus required. *Prerequisite* DA 211. 3 hours credit

DA 364. Choreography II**C**

Continuation of Choreography I. Covers pre-classic dance forms, as well as primitive, archaic, medieval, introspective, jazz, Americana, cerebralistic, and impressionistic dance forms. Attendance at all dance concerts on campus required. *Prerequisite* DA 363. 3 hours credit

DA 461 or 462. Practicum in Dance**A**

Internship in dance teaching for senior or graduate dance students. By audition only.

6 hours credit

HEALTH COURSES

(Health Education 300 is required for Elementary Education majors desiring New York State certification.)

HE 115. First Aid**A**

Prepares student, through knowledge and skills, to meet the needs of most emergency situations when first-aid care is required and medical attention is not readily available. Personal-safety and accident prevention information incorporated to acquaint individuals with causes of many accidents, so that action may be taken to eliminate or minimize such causes. 2 hours credit

HE 151. Cardiovascular Health Education**D**

The development of knowledge and skills necessary to become personally responsible for cardiovascular health. Content will be used as a basis for assessment of personal cardiovascular risk factors. Investigations will be of basic behaviors dealing with smoking, diet quality, obesity, physical activity, blood pressure, and cardiovascular endurance as related to coronary heart disease. 2 hours credit

HE 152. Nutrition and Weight Control**D**

The development of knowledge and skills necessary to become personally responsible for nutrition and weight control. Contents will be used as a basis for assessment of personal nutritional status and necessary personal behavior modification. Investigation of basic nutritional facts, energy balance, obesity, dieting, nutrition as related to disease, and contemporary issues in the field. 2 hours credit

HE 215. Personal and Health**D**

To develop positive attitudes toward health and optimum living and to influence formation of good habits affecting one's physical, mental, and social well being. Emphasis will be on proper health behavior as it relates to the disease process. Brief consideration is given to the role of health agencies in assessing community health needs and coordinating activities to meet these needs. 3 hours credit

HE 300. Education in Drugs, Alcohol and Tobacco**A**

Knowledge and methods in dealing with the problems of use of drugs, alcohol, and tobacco in elementary and secondary schools. Meets requirement for Education Law, Section 804, 804a, and 805. Limited to Education majors only. 1hour credit

HEALTH SERVICES ADMINISTRATION

Office: W393 Thompson Hall

John A. Krout, *Director*

The major objectives of the Health Services Administration program are to provide a comprehensive, coherent, and integrated educational experience that prepares students to be effective and productive administrators in a wide variety of health care facilities. Majors are prepared for and encouraged to pursue graduate study in health administration, public health or other areas; recent graduates have, in fact, gone on to some of the country's best graduate programs. Graduates may, however, pursue immediate employment in a variety of entry or mid-level management positions, in hospitals, health maintenance organizations, or health insurance plans, or in skilled nursing facilities, hospices, home health agencies, rehabilitation programs, and other private and public programs.

As the health care sector has expanded and changed over the last ten years, the opportunities and challenges for health care administrators have also increased. Successful administrators must cope with new programs-for special populations new technologies, personnel, organizational forms, and financing methods, new regulations from state and federal agencies, and continuing pressures for cost containment. The Health Services Administration program strives to develop successful administrators by providing both a comprehensive and critical understanding of the changing health environment, and the specific administrative knowledge and skills that are needed to effectively cope with and manage change.

The program curriculum integrates the perspective and the expertise of a number of academic disciplines. Required and elective courses are drawn primarily from business administration, economics, psychology, and sociology, as well as from philosophy and political science. Advisement of student majors and administration of the program are provided by the Health Services Administration Council, which includes faculty from these disciplines who are currently involved in research, consulting, and public service in the health services sector.

Internships

The program also includes a required internship for all majors of at least six weeks of administrative experience in an affiliated health institution. Internships are currently available in more than 30 facilities in Western New York, including hospitals, hospices, developmental centers, mental health programs, skilled and health related facilities, health maintenance organizations and other agencies. In some cases, new internships are established to meet the geographic preferences or needs of students. Academic supervision is provided by a member of the faculty, and by an on-site supervisor designated by the college. Students are required to develop a learning contract approved by both the college and the health institution which specifies educational objectives, job requirements, and work schedules. Academic credit is awarded based on formal evaluation by the on-site supervisor, and the faculty evaluation of daily logs, written products associated with the students major projects, and a final paper. Internships are usually completed during the summer following the student's junior year.

The Health Administration Advisory Panel

The curriculum and internships are reviewed several times each year by an external advisory panel to insure that the program continues to provide the knowledge, skills, and experience necessary for graduates to function effectively in professional roles. The administrators who serve on the panel represent a variety of practice settings and career backgrounds, and are also actively involved in serving as internship supervisors. Members of the panel also provide advice to faculty and students on current issues and career opportunities.

The Health Administration Club

Many majors are also involved in a student-directed organization that supports and supplements the academic program. The Health Administration Club is actively engaged in a program of field trips, and forums on careers, internships, and current issues, as well as fund-raising and informal social activities. Majors and interested students are invited to join.

Integration with other academic programs. With careful planning, majors in Health Services Administration can also complete a minor, and in some cases, even a major in another academic discipline. Other majors, especially those in the social sciences, may also choose to supplement their majors with a 22-hour concentration in Health Services Administration. Requirements for the concentration are listed in the catalog in the Special Studies section.

Requirements for the B.S. in Health Services Administration

Major Requirements: Degree candidates in Health Services Administration will need to complete a minimum of 45 hours of course work, including 30 hours of required core courses. The remaining 15 hours should include 6 hours from courses in Health Services Policy, and 9 hours from one of the five remaining areas of concentration. Students may substitute a self-designed concentration for those listed with approval of their advisor.

In order to take the required upper level courses for the major, students must first complete 12 hours of course prerequisites including: Macroeconomics, Microeconomics, Introduction to Computing or Introduction to Microcomputers, and Introduction to Sociology. A 2.5 GPA in these courses or approval of the director is required for admittance into the Health Services Administration program.

Required Courses: 29 hours

Statistics: BA 200, ED 200, PS 200, PY 200, or SO 200		3
AC 201-202	Accounting	6
BA 350	Health Care Finance	3
EC 360	Health Care Economies	3
HA 300	Health Service Management	3
HA 377	Health Administration Internship	6
SO 325	Complex Organizations	3
SO 343	Health Systems and Policy	3

Health Policy Electives: 6 hours

HA 310	Health Law	3
AN 301	Plagues and Peoples	3
SO 312		
BI 360	Aids and STDs	3
PL 335	Medical Ethics	3
PS 384	Politics of Health	3
PY 247	Health Psychology	3
PY 257	Women and Health	3
SO 340	Medical Sociology	3

Area of Concentration: 9 hours from one of five areas

Resource Management

AC 301	Intermediate Accounting	3
*AC 303	Cost Accounting	3
AC 402	Governmental Accounting	3
BA 324	Management Information Systems I	3
BA 420	Operation Research and Decision Analysis	3
PS 380	Policy Evaluation	3

Human Resources Management

*BA 330	Human Resource Management	3
BA 440	Advanced Human Resource Management	3
EC 355	Labor and Industrial Relations	3
PL 310	Administrative Ethics	3
PY 317	Tests and Measurements	3
PY 347	Industrial/Organizational Psychology	3
PS 385	Business and Labor Policy	3
SO 329	Industrial Sociology	3

Marketing

*BA 325	Principles of Marketing	3
BA 340	Marketing Research	3
BA 411	Marketing Management	3
BA 442	Consumer Behavior	3
BA 444	Advertising & Sales Promotion	3
SO 303	Social Stratification	3
SO 323	Community	3

Long-Term Care

ED 355	Learning and Behavior Disorders of Children	3
ED 360	Developmental Disabilities	3
*PY 289	Life Span Development	3
PY 356	Abnormal Psychology	3
PY 366	Psychology of Adulthood and Aging	3
PY 379	Child Psychopathology	3
SO 210	Introduction to Gerontology	3
SO 337	Sociology of Aging	3
SO 338	Death and Dying	3
SO 346	Mental Health and Society	3
SO 389	Policy for Aging	3

Alcoholism and Drug Abuse

PY 247	Health Psychology	3
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(May be used to meet concentration requirements if not used as a health policy elective.)

PY 356	Abnormal Psychology	3
SO 310	Sociology of Deviant Behavior	3
*SO 311	Sociology of Addiction	3
SO 346	Mental Health and Society	3

General Electives: 40 hours chosen from the General College Program

*Required for students who elect this concentration.

HA 300. Health Services Management**B**

The course is designed to introduce students to the application of organizational theory and research, and principles of administration in the management of a variety of health services organizations. Various aspects of management, including institutional planning and policy development, financial management and personnel administration are examined for hospitals, health maintenance organizations, skilled nursing and health facilities, and various community-based programs. 3 hours credit

HA 310. Health Law**B**

This course provides an introduction to the major legal issues and principles in the health care field and in administration of health care services, including federal and state legislation and regulations on private and public insurance programs, and on operation of hospitals, and other health care facilities. Other issues examined include medical malpractice, patients rights, confidentiality, living wills, and patient designation of a representative or proxy to act on their behalf. 3 hours credit

HA 377. Health Administration Internship**B**

Internships are designed to allow students to gain practical work experience and knowledge in health administration in an affiliated health facility. Six hours of academic credit are awarded for 240 hours of supervised work experience, including a rotation through major departments, and successful completion of one or more major projects. Students develop a learning contract approved by both the college and institution which specifies educational objectives, job - requirements, and work schedules. Evaluation of student performance is based in reports from the on-site supervisor, daily logs, written material from the student's project(s) and a final paper. 6 hours credit

HISTORY

Office: E332 Thompson Hall

George Browder, *Chairperson*

Understanding the complexities of the human experience is the historian's goal. The history major broadens the student's knowledge about his or her own society and its past, and introduces the student to other cultures. It also prepares the student for a variety of career opportunities. Obviously, it prepares students for graduate studies to become professional historians and professors. Law school courses presume a knowledge of the past. Government activity at local, state, and federal levels depends on historical knowledge and the skills acquired in the study of history. Editing, both for book publishing and the communications media, requires similar skills and historical knowledge. Museums and libraries employ persons with academic backgrounds in history. Most jobs in business and industry are open to liberal arts graduates with an historical background. And, of course, teaching remains an important career opportunity for Fredonia history majors.

Requirements for the B.A. Degree in History

42 hours in history; no more than 21 hours may be from 100200 level courses. The program must include the following:

	Hrs.
a. HY 105-106; 3 additional hours from U.S. history	9
b. HY 115-116; 3 additional hours from European history	9
c. 3 courses from the history of Asia, Mid. East., American Indians, and/or Latin America	9
d. 3 additional history courses as advised	9
e. HY 201 Doing History	3
f. HY 499 Research Seminar	3
Total	42

To complete the degree requirements, all majors must fulfill all testing and assessment requirements set by the department. Students whose objectives require a different program may, upon petition to the department chairperson, seek approval for a program of their own design.

Requirements for the B.A. Degree in Social Studies

Responsibility for the B.A. in Social Studies is in the Department of Education; however, advisement is done by the Department of History. Requirements beyond those of the General College Program include:

Professional Education Courses:

ED 101	Freshman Field Experience	0
ED 224	Adolescent Development	3
ED 250	Intro. to the Exceptional Learner	3
ED 305	Multicultural Education	3
ED 310	Educational Psychology	3
ED 419	Secondary School Methods	3
ED 430	Student Teaching Secondary School	15
		30

Social Studies Courses:

Introductory

HY 105	U.S. History to 1877	3
HY 106	U.S. History Since 1877	3
HY 115	Early Western Civilization	3
HY 116	Modern Western Civilization	3
PS 120	American Politics	
	or	3
PS 150	U.S. and World Affairs	
SO 116	Intro. to Sociology	
	or	3
AN 115	Intro. to Anthropology	

EC 201	Principles of Macroeconomics	3
EC 202	Principles of Microeconomics	3

*Social Studies Courses:
Advanced (300-400 level)*

One Political Science course in American politics 3

PS 323	Electoral Behavior or	
PS 324	The Presidency or	
PS 370	American Constitutional Law or	
PS 371	Civil Rights & Liberties	

One Political Science course in international studies 3

One elective course in minority studies: 3

SO 316	Minority Groups or	
AN 321	Anthropology of Indian America or	
AN 322	Anthropology of Africa or	
HY 356	History of American Indians or	
HY 358	Modern American Indian Issues or other courses as advised. 9 hours in history as advised	9

(at least one course in non-Western areas: Asia, Africa, Latin America, Middle East, and another in international studies)

Plus either a General Social Studies or Economic Studies Option.

General Social Studies Option: 9

9 hours in history, economics, political science, sociology, or anthropology (all courses must be 300 level or above with at least one course in non-Western areas: Asia, Africa, Latin America, Middle East and another in international studies.)

51

Economic Studies Option:

Recommended for students who have an interest in teaching economics in high school in addition to other social studies subjects.

EC 305	Intermediate Microeconomic Theory	3
EC 310	Intermediate Macroeconomic Theory	3
	and 9 hours of economics above the 200 level.	9

57

A letter grade of C or better is required in all courses in this program; the student is also encouraged to complete one course in statistics as part of the General College Program. Also required is one year of college-level study of a language other than English, or the equivalent.

Enrolled students and transfer students wishing to declare the Social Studies major must have an overall GPA of 2.50. Transferred courses to be applied to the requirements of the Social Studies program must have been completed with a grade of C or better. No ungraded courses (pass-fail, etc.) may be applied as credit toward program requirements.

The grade point requirements for entering the student teaching semester are: overall GPA of 2.50, Professional Education courses 2.50, and in the Social Studies component 2.50. Acceptance into

student teaching is also contingent upon a personal interview with a faculty screening committee, and approval by the chairperson of the education department.

Students desiring to take a second major in one of the four social science departments (economics, history, political science, or sociology/anthropology) may count courses taken for the Social Studies major and the General College Program requirements towards such a second major with the permission of the second department. A student wishing social studies certification with the history major should explore this option with his or her academic advisor.

For requirements for the Professional Education courses and entrance to student teaching, consult the education department, listings starting on page 79.

Requirements for Minor in History: 18 hours of course work in history including 9 hours of upper-level courses, as advised. The minor in history is designed to supplement a student's major or to fulfill his or her particular interests and, therefore, is to be flexible enough to accomplish this objective. The program must be prepared in consultation with a department faculty member and receive department approval. No more than 9 hours of history credit earned prior to the declaration of the minor and assignment of a department faculty advisor may be credited toward the program.

The history department also participates in the Cooperative Agriculture and the Cooperative Engineering programs. Refer to descriptions of these programs on page 46 and page 82, respectively.

History courses are components of concentrations in American Studies, Latin American Studies, and Law and Justice. Refer to descriptions of these programs on page 160.

Introductory Studies In History and Social Studies

HY 105-106. United States History

A

Survey from colonial times of political, economic, and cultural development of America. Second semester begins with 1877. 3 hours credit *each semester*

HY 107-114. Themes from American History

D

Exploration in depth of single themes from the history of America. Specific themes vary from semester to semester. 1-3 hours credit *each semester*

HY 115-116. Western Civilization

A

Survey of the civilizations of the West from ancient times to the present. Second semester begins with the 17th century. 3 hours credit *each semester*

HY 117-130. Themes from Western Civilization

D

Exploration in depth of single themes from history of the Western world and its antecedent civilizations. Specific themes, which vary from semester to semester. For many courses, students should have completed or be registered concurrently in HY 115 or 116. 1-3 hours credit *each semester*

HY 201. Doing History

A

An introduction to history as a process. Focuses on the development of those skills and levels of intellectual maturity essential to doing history. prerequisite sophomore standing 3 hours credit

HY 202. Applied History

D

Introduces students to applied historical research. Focus varies with semesters, e.g., creation of historical documentaries; local history archives and research. 3 hours credit

HY 203. History Through Films

D

Examination of life, values, and beliefs of various cultures, countries, and epochs as exhibited in films. Film images compared with historical writing. 3 hours credit *each semester*

Intermediate Courses

The prerequisite for all 300 and 400 level courses is 6 hours of history or junior standing or permission of the instructor, unless otherwise indicated.

EUROPE**HY 301. The Greek World****C****Classical Greece**

Evolution of Greek society from Minoan and Mycenaean culture to empire of Alexander the Great and his successors. Includes world of Homer, dark ages, the tyrants, colonial period, age of Pericles, rise of Macedonia, and the hellenistic age. The legacy of Greece.

prerequisites completion of GCP, parts I and II, or HY 115 3 hours credit

HY 302. The World of Rome**C****Republican and Imperial Rome**

Legends and stories of Rome's foundation, early republic, absorption of Italy, Punic wars, conquest of Mediterranean world, conflicts of late republic. Augustus and the empire, the Pax Romana, time of troubles, decline and fall of the empire. The legacy of Rome.

prerequisites completion of GCP, parts I and II, or HY 115 3 hours credit

HY 303-304. Medieval History**C**

First semester from legalization of Christianity by Constantine to Renaissance of 12th century. Includes Germanic invasions, Charlemagne, feudalism, the Crusades, birth of Europe, and first clashes of church and state. Second semester from high Middle Ages to c.1500. Includes decline of feudalism and serfdom, great disputes on religion and society, world of new cities and trade, the new national spirit, and end of medieval unity. prerequisites completion of GCP, parts I and II, or HY 115 3 hours credit each semester

HY 305. The Renaissance**B**

General study of European development during Renaissance. Major emphasis on social and cultural development. Slides, tapes, and films utilized. prerequisites completion of GCP, parts I and II, or HY 115 3 hours credit

HY 306. The Age of Reformation**B**

Analysis of origins of Protestant and Catholic "reformations" will contribute to an understanding of the persistence of conflict. Intellectual issues of the age presented in light of social, cultural, economic, and political conditions. prerequisites completion of GCP, parts I and II, or HY 115 3 hours credit

HY 307. Golden Age of Spain**C**

The sudden rise of Spain to the greatest power on earth, and its equally surprising decline. Spain's 16th and 17th century empire, spread from the entire Western Hemisphere to Southeast Asia.

Some topics the Inquisition, the Armada, the Habsburg Monarchy, poverty vs. opportunity, social life, dress, architecture, urban development, war technology, and agriculture. prerequisites

completion of GCP, parts I and II, or HY 115 3 hours credit

HY 308. Age of Columbus**D**

Overview of the Mediterranean political, technical and economic background, with focus on Italy, Portugal and Spain. Analysis of motivations for the first voyage and activities during the other three trips. Looks at the life and activities of the native peoples contacted. Presents the results of the encounter of the hemispheres regarding diseases, foods, religions, daily life, etc.

prerequisites completion of GCP, parts I and II, or HY 115 3 hours credit

HY 309. Nineteenth Century**C****'Europe**

A survey of the major social, political, economic and cultural trends that have laid the Foundations For our contemporary world nationalism; scientific, technological and industrial revolutions; modern ideologies, especially Marxism; modern militarism; imperialism; revolutions of 1789, 1830, 1848, 1905; modernization of society, life styles and values.

prerequisites completion of GCP, parts I and II, or HY 116. 3 hours credit

HY 311. Twentieth Century**C****Europe**

The major transition of European society from World War I, when Europe ruled the world, to its present status, newly liberated from the super powers of the Cold War. Special attention to international tensions, fascism, and the Nazi and Soviet experiences.

prerequisites completion of GCP, parts I and II, or HY 116 3 hours credit

HY 312. Modern Germany**C**

Germany from its modern unification in 1870 to its recent reunification. Emphasis will vary nationalism and the impact of industrialization, imperialism; World War I and the revolution; problems of Weimar Republic; the Nazi experience, World War II, Holocaust; Cold War divisions, role in European unification and end of Cold War

Prerequisites completion of GCP, parts I and II, or HY 116 3 hours credit

HY 313. England, 1688 to the**D****Present**

Transition of England, from small, badly divided nation to self-confident and great imperial power to dissolution of that supremacy by 20th century economic and social forces.

prerequisites completion of GCP, parts I and II, or HY 116 3 hours credit

HY 315. The Formation of**D****France**

The social, political, economic and cultural history of France from 1200 to 1789. Emphasis on the rise of the monarchy, religious dissension, popular culture, the age of Louis XIV, the growth of Enlightenment thought and the origins of the French Revolution.

prerequisites completion of GCP, parts I and II, or HY 115 3 hours credit

HY 317. Modern France**D**

Social, political, economic and cultural development from the French Revolution of 1789 to the present. Focus on 19th century political conflict; the growth of bourgeois and working class cultures; the impact of World Wars I and II; the Great Depression and the rise of fascism; cultural trends in the 20th century.

prerequisites completion of GCP, parts I and II, or HY 116 3 hours credit

HY 319. Spain and the Spaniards**C**

Analysis of dominant themes in Spanish history, antiquity to present. Emphasis on medieval heritage of toleration and tension; Golden Age of world rule; Spanish Civil War as prelude to World War II; and contemporary issues. All readings in translation. 3 hours credit

HY 322. French Revolution and Napoleon**D**

Both a descriptive review and an interpretive critique of a major turning point in the ideological, social, and constitutional evolution of the modern West. A study of far-reaching change during a decade of revolutionary turmoil is followed by an examination of the dazzling career of Napoleon, who introduced the ideas and institutions of the Revolution to Europe and at the same time provided the substance of modern tyranny. prerequisites completion of GCP, parts I and II, or HY 116 3 hours credit

HY 323. The Victorian Epoch**B**

A social and ideological account of the transformation of Great Britain from an agrarian country governed by landed patricians to a nation directed by a commercial middle-class, The rise of democracy, an industrial economy, an urban society, public opinion, and a populist monarchy are major themes. prerequisites completion of GCP, parts I and II, or HY 116 3 hours credit

For further offerings in European history/ see advanced courses.

UNITED STATES HISTORY**HY 245. History of Rock Music****B**

Survey of the history of rock music from 1945 to the present, emphasizing links between the music and aspects of American political, economic and social history. 3 hours credit

HY 325. Colonial America**C**

An examination of American History from European settlement through the American Revolution. The focus is on the lives and perceptions of ordinary men and women. 3 hours credit

**HY 327. Antebellum U.S.,
1820-1861****C**

Surveys territorial expansion and resistance, the rise of the factory system and labor unions, political and cultural democratization, social reform, immigration and nativism, religious revivalism, slavery, and the causes of the Civil War. 3 hours credit

**HY 329. The Gilded Age,
1865-1895****C**

Focus on the transformation of the U.S. wrought by industrial capitalism. Topics include the process of industrialization, class conflict, social and political reform, immigration and ethnicity, Western development, the New South. 3 hours credit

**HY 330. The Age of Reform,
1890-1920****C**

Focuses on the transformation of the U.S. from a rural/agrarian to an urban/industrial society and the attendant social upheavals, the move from isolation to intervention in world affairs, the changing nature of government, and the challenge of ethnic/cultural diversification. 3 hours credit

**HY 331. The Inter-War Years,
1919-1945****C**

Examination of domestic scene in America from end of World War I to end of World War II, including discussion of business dominated 1920s, economic crisis and the New Deal of the 1930s, second World War, and other major trends, events, and figures. 3 hours credit

**HY 332. U.S. History, 1945 to
the Present****B**

Examination and analysis of major cultural, economic, and political developments since World War II, including the Cold War, McCarthyism, Civil Rights movement, Great Society, etc. *prerequisite* HY 106 3 hours credit

**HY 336. African-American
History****D**

A survey from colonial times to the present of the political, economic and social role of African-Americans in American life. 3 hours credit

HY 338-339. U.S. Thought and Cultures**C**

Survey of the ideas, beliefs, and values that have shaped U.S. development, with a particular emphasis on multiculturalism. Topics will include religion and philosophy, education, popular culture, the arts, science, and social, political and economic history. Semester coverage divides at 1865. *prerequisites* completion of GCP, parts I and II, *or* I-P 105 for I-P/338, *or* HY 106 for HY 339. 3 hours credit *each semester*

**HY 340. The Westward
Movement****C**

The importance of the frontier and the expanding West to the development of the U.S., its history, institutions, beliefs, values, and national character. The West as myth and reality, from colonial times to issues confronting the 20th century transMississippi West. 3 hours credit

**HY 342. 20th Century U.S.
Foreign Relations****B**

Analysis of the major issues in American foreign policy from 1896 to the present. The focus is on America's rise to globalism and the effect of this prominence on 20th century world order. 3 hours credit

HY 346. Modern Urban History**D**

Two centuries of city living, concentrating on Europe and North America. Contemporary city development, examining history of today's urban-based civilization, including Barcelona, Paris, London, Boston, New York, Los Angeles, and Toronto. 3 hours credit

HY 347. U.S. Immigration**C**

Survey of immigration to the U.S., with an emphasis on comparing the experiences of European, African, Latin American, and Asian immigrants. Topics will include immigrants' lives, work, and communities; assimilation and cultural persistence; and the development of U.S. immigration policy. prerequisites completion of GCP, parts I and II, or HY 105, or HY 106 3 hours credit

HY 348. U.S. Labor History**D**

Survey of American labor since colonial times, emphasizing late 19th and 20th centuries. Focus is on the impact of industrialization on work, management efforts at labor force control, rise of trade and industrial unions, and labor-management confrontations. 3 hours credit

HY 349. U.S. Military History**D**

A study of the development of American military strategy and tactics. Focus will be on Civil War, World War I, and World War II. 3 hours credit

HY 350. Vietnam and the Growth of the National Security State**C**

An analysis of American foreign policy from FDR to Nixon and its effects on Vietnam, American domestic policy and the growth of the National Security State. 3 hours credit

HY 351. Defining America**C**

An examination of what it has meant to be an American, from the Revolution to the present. Emphasis on how definitions of America have evolved over time, and on the impact of race, ethnicity, gender, and class on these definitions. prerequisites completion of GCP, parts I and II, or HY 105, or HY 106 3 hours credit

AMERICAN INDIANS

See HY 285 under Latin America

HY 356. The American Indian**B**

History of the American Indian, with special focus on the American Indian nations' reactions to European invasion and to changing government policies toward them. 3 hours credit

HY 358. 20th Century American Indian Issues**C**

History of American Indian peoples in the twentieth century. Emphasis on federal policy development, the growth of political pan-Indian movements, the Indian image in popular culture, and current issues raised in the writings of contemporary authors representing a diversity of Indian nations. prerequisites completion of GCP, parts I and II, or HY 356

ASIA/MIDDLE EAST**HY 261. Islamic Civilization****C**

A survey from pre-Islamic to Napoleonic era of the political, religious and social development of the Islamic Empire. 3 hours credit

HY 361. Modern Middle East**C**

A survey of 19th and 20th century political, social and economic developments in the Middle East. Prerequisites completion of GCP, parts I and II, or HY 261 3 hours credit

HY 365. Early History of China**C**

Covers the emergence, full development, periodical decline and resurgence of Chinese civilization. Whatever strengths and shortcomings of the traditional Chinese society will be explored. 3 hours credit

HY 366. Modern East Asia**C**

A study of modern history of China, Japan, Korea, and Vietnam their domestic development, mutual relations, Western involvement's, and their standing in the contemporary global geopolitics. 3 hours credit

HY 367. Twentieth Century China **B**

Survey of the manifold social-political transformations at home as well as the repercussions of its foreign relations in this century. 3 hours credit

HY 368. History of Japan **C**

A review of Japanese history from antiquity to the present with emphasis on both cultural and economic political developments. 3 hours credit

HY 369. Women in China and Japan **D**

Chinese and Japanese history through an emphasis on the social and cultural roles of women and their change over time. Topics women in Confucian ideology, in traditional family, and literature, and war, and Western influence, in social reform, and education, and revolution, at the work place. prerequisites completion of GCP, parts I and II, or 3 hours Asian history 3 hours credit

THEMATIC

HY 252. History of Communications **B**

Advance of communication forms from the printing press to telecommunication, including newspaper development, the pictorial magazine and photography. Cross listed as-CM 252; credit cannot be earned for both courses. 3 hours credit

HY 275. History of Sexual Mores **D**

A study of the development of sexual mores in Western society from prehistoric to modern times, relating sexual mores to major economic and social changes in history and to the basic assumptions which underlie the broader culture. 3 hours credit

HY 375. History of Authority **C**

Interdisciplinary analysis of the methods of domination and control employed in major Western cultures since the 17th century. Focus on 19th and 20th century United States. Topics include prison, schooling, the market system, hegemony, the welfare state, narrative and the media. Prerequisite completion of GCP, parts I and II. 3 hours credit

HY 378. Canada Today **C**

An analytical review of contemporary Canada from a broad perspective. Topics discussed include geography and demography, ethnic and racial minorities, free trade, parliamentary government, environment, and, above all, the French and English heritage, past and present. Prerequisite completion of GCP, parts I and II. 3 hours credit

LATIN AMERICA

HY 285. Aztecs, Incas and Mayas **B**

Survey of pre-Columbian civilizations from early hunting bands, through neolithic villages, to the great urban civilizations of the Mayas, Aztecs and Incas. Concludes with a study of conquest culture, i.e., the history of European-Indian relations since 1492. 3 hours credit

HY 380-381. History of Mexico **B**

First semester, survey of geography and political, economic, and social development from pre-Columbian times to beginnings of independence in 1800. Emphasis in second semester on social and economic history of Mexico's Revolution, 1910-1940. Mexican-U.S. relations stressed along with theme of revolutionary nationalism in contemporary Mexico. 3 hours credit each semester

HY 382-383. History of Latin America **C**

Survey of political, economic, and social development of Latin America; pre-Columbian era to present. First semester colonial period. Second semester national period. 3 hours credit each semester

COMPARATIVE HISTORY**HY 385. Comparative****B****Broadcasting Systems**

Comparison and analysis of United States and foreign broadcasting systems, including historical development, ownership, structure, programming, and goals. *Prerequisites* completion of GCP, parts I and II. 3 hours credit

HY 386. Global Studies**C**

A study of development and under-development in the history of the modern world since the beginnings of capitalism in the 12th century to the 20th century. Focus is on the role of "third world" countries on the periphery of world capitalism. 3 hours credit

HY 387. Comparative Slave**C****Societies**

Discussion and analysis of development, effects, and elimination of slavery in different societies and in various eras. Will also include historians' debates on slavery and its impact. *prerequisite* completion of GCP, parts I and II. 3 hours credit

HY 388. Origins of Civil Liberty**D**

Medieval origins of modern constitutional rights; the historical origins and development of modern social rights and institutions, e.g., jury trial, habeas corpus, due process, voting, etc. *prerequisites* completion of GCP, parts I and II or HY 115. 3 hours credit

HY 389. Religion in the Western Tradition**C**

Overview of historical development of three great monotheistic faiths: Judaism, Christianity, Islam. Compares these creeds with earlier religions. Follows development of monotheistic faiths and their divergent branches and heresies in to modern times. Comparative analysis of changing religious ideals, values and practices over time. *Prerequisites* completion of GCP, parts I and II, or HY 115, or HY 116. 3 hours credit

EXPERIMENTAL SUBJECTS**HY 399. Experimental Courses In History****D**

Experimental courses vary in content from semester to semester. Consult college@course Offerings Bulletin and department notices for specific subject covered each semester. Students may earn up to 6 hours credit under these course numbers, provided the subject differs. 1-3 hours credit

ADVANCED COURSES

The "Topics" courses offered at the 400-level vary in content from semester to semester. Consult college Course Offerings Bulletin and departmental notices for specific subject covered each semester. Students may earn up to 6 hours of credit under any one course number, provided subject differs.

HY 400. Directed Study**A**

In-depth exploration of an historical topic under the direction of a department member. Student must have instructor's approval before registering for course. 3 hours credit each semester

HY 401-424. Topics in European History**D**

Topics offered vary from semester to semester. 3 hours credit per semester

HY 401-402. Topics in Ancient History**D**

Topics offered vary from semester to semester. 3 hours credit hours per semester

HY 403-404. Topics in Medieval History**D**

Topics offered vary from semester to semester. 3 hours credit each semester

HY 405-408. Topics in Early**D**

Modern History

Topics offered vary from semester to semester. 43 hours credit each semester

HY 409-424. Topics in Modern and Contemporary Europe

D

Topics offered vary from semester to semester. 43 hours credit each semester

HY 4 13. Topics in Modern Britain

D

Topics offered vary from semester to semester. 43 hours credit each semester

HY 425-459. Topics in American History

D

Topics offered vary from semester to semester. 43 hours credit each semester

HY 427-430. Topics in Nineteenth Century U.S. History

D

Topics offered vary from semester to semester. 43 hours credit each semester

HY 430432. Topics in Twentieth Century U.S. History

D

Topics offered vary from semester to semester. 43 hours credit each semester

HY 460-469. Topics in Eastern History

D

Topics offered vary from semester to semester. 43 hours credit each semester

HY 480-484. Topics in Latin American History

D

Topics offered vary from semester to semester. 43 hours credit each semester

HY 499. Research Seminar

B

Historiography, methodology of research through preparation of research paper requiring use of primary sources. *Prerequisites* HY 201 and senior standing 3 hours credit

INDUSTRIAL MANAGEMENT

Office: 118 Houghton Hall

Michael N. Grasso, *Director*

There is a well recognized need for scientifically and technologically educated graduates in the industrial community. The Industrial Management program at Fredonia is designed to serve this need by providing the necessary foundation in applied physics, business, and mathematics.

This curriculum is structured to prepare students for careers either in industry, governmental facilities or other organizations that address the present and future needs of our industrialized society. As an alternative, graduates could pursue advanced studies at graduate institutions.

The Industrial Management program (130/132 hours) is an integrated multidisciplinary curriculum combining courses from applied physics (25/27 hours), business/economics (24 hours), mathematics/computer science (24 hours), social sciences/humanities (24 hours), and a sufficient number of supporting elective courses to enhance career objectives. Additionally, the foundation of oral and written communication is developed early in the program and consistently used throughout. The college approved industrial experience is required following the completion of either the sophomore or junior year. In the process, the student is provided with a broadbased liberal education.

Required Core Program (85-87 hours):

Physics (25-27 hours)

PH 230-231	General Physics I & II and PH 232-233 (Labs)	8
PH 321-322	Engineering Mechanics I & II	8
PH 323	Circuit Analysis I	3
	or	
PH 325	Electronics and PH 327 (Lab)	4
PH 324	Circuit Analysis II	3
	or	
PH 326	Digital Electronics and PH 328 (Lab)	4
PH 330	Thermodynamics	3
		<u>25-27</u>

Mathematics/Computer Science (24 hours)

MA 122-123, 223	University Calculus I, II & III	12
MA 224	Differential Equations	3
MA 325	Introduction to Numerical Analysis	3
CS 125	FORTTRAN Programming 3	
CS 265	Business Programming	3

24

Business/Economics (24 hours)

AC 201-202	Principles of Accounting I and II	6
EC 201-202	Principles of Microeconomics and Principles of Macroeconomics	6
BA 310	Legal Environment of Business	3
BA 315	Principles of Business Finance	3
BA 321	Management and Organizational Behavior	3
BA 325	Principles of Marketing	3
		<u>24</u>

Operations Research and Statistics (6 hours)

BA 420	Operations Research and Decision Analysis	
	or	3
MA 375	Deterministic Models in Operations Research	
BA 200	Fundamentals of Statistics for Business & Economics	
	or	3

EC 200	Fundamentals of Statistics for Economics & Business	
	or	3
MA 350	Applied Statistics I	
	or	3
PY 200	Statistics	
	or	3
SO 200	Statistics for Sociologists	
Communications (6 hours)		
CM 105	Public Speaking	3
EN 375	Writing for the Professions	3
		6

In addition, completion of an appropriate summer industrial work experience is required prior to entering the senior year.

(Law, Justice and Society see Special Studies, pg. 167)

MATHEMATICS

Office: 223 Fenton Hall

James E. McKenna, *Chairperson*

The aim of the programs in mathematics, is to prepare students for the lifelong study and use of mathematics. Mathematics and those who can apply it have made possible many of the technological advances now taken for granted. On the other hand, problems in business, science and engineering, when formulated mathematically, often spur advances in mathematics. This interrelation between mathematics and other disciplines has been growing and now includes many more areas than was thought possible.

The Department of Mathematics and Computer Science offers two majors in mathematics. The Liberal Arts degree is recommended for those who plan to enter graduate study in mathematics or who plan a mathematics-related career in business, industry or science. The Mathematics-Secondary Education degree is designed for those who plan careers as high school mathematics teachers. The department also offers a minor in Mathematics and, in collaboration with the physics department, a degree program in Mathematics Physics. It also participates in the Cooperative Engineering and the Cooperative Agriculture programs on page 46 and 82.

Mathematics students may participate in the activities of the Mathematics Club (Chi Tau Omega) and the Computer Science Club, and honor students may be elected for membership in Pi Mu Epsilon, a national society devoted to the promotion of scholarly activity among mathematics students. The Frank R. Olson Scholarship is also available to students. For further details about the programs in mathematics see James E. McKenna, chairperson of the Department of Mathematics and Computer Science. See also page 69 for the programs offered in computer science.

The Department of Mathematics and Computer Science offers the following major and minor programs in mathematics:

Liberal Arts (B.S. Degree) Mathematics-Secondary Education (B.S. Degree)

Minor in Mathematics: 24-26 hours distributed as follows:

	Hrs.
MA 122, 123, 210	12
MA 231 or MA 224	3 or 4

Three courses in mathematics at the 223 level or higher, with at least two of these at the 300-400 level.

Requirements for the B.S. Degree in Mathematics

Liberal Arts major (45 or 46 hours):

CS 125	FORTTRAN Programming	
	or	3
CS 205	APL with Applications	
	or	4
CS 260	Programming I	
MA 122-123-223	University Calculus I, II & III	12
MA 210	Foundations of Discrete Mathematics	4
MA 224	Differential Equations	3
MA 231	Linear Algebra with Applications	4
MA 331	Intro. to Abstract Algebra	3
MA 323	Intermediate Real Analysis	3
MA 420	Advanced Calculus	3
MA 405	Senior Seminar	1
Plus three additional courses in		9
mathematics at the 300 level or higher.		45 or 46

Cooperative Engineering student may substitute PH 425 for MA 420.

The three additional courses will be recommended by the student's departmental advisor. This recommendation will reflect the student's desire to emphasize an area of specialization, such as operations research, applied statistics, applied graph theory, computer science applications, or other appropriate emphases. It is strongly recommended that students take additional courses in computer science consistent with their area of specialization.

Mathematics-Secondary Education (43 hours)

Students who wish to teach mathematics at the secondary school level may obtain provisional certification by taking the required courses in professional education (see page 79 for procedure for admission to those courses) and completing the following courses: 43 hours in mathematics and computer science including:

CS 260	Programming I	4
MA 122-123	University Calculus I, II	8
MA 210	Foundations of Discrete Mathematics	4
MA 223	University Calculus III	4
MA 231	Linear Algebra	4
MA 323	Intermediate Real Analysis	3
MA 331	Intro. to Abstract Algebra	3
MA 350	Probability and Statistics	3
Three of the following six courses:		9
MA 315	Theory of Equations	
MA 332	Abstract Algebra	
MA 335	Theory of Numbers	
MA 337	Intro. to Combinatorial Mathematics	
MA 341	Intro. to Geometry	
MA 381	History of Mathematics	
MA 405	Senior Seminar	1
		43

Also required is one year of college-level study of a language other than English, or the equivalent.

All mathematics majors must take two different sciences. If approved, these courses may be used to satisfy Part II.A of the General College Program. Majors must select from the following courses:

Biology	BI 131
Chemistry	CH 115
Geology	GS 165
Physics	PH 230

Majors may also select more advanced courses than those listed above.

Requirements for the B.S. Degree in Mathematics-Physics

Students interested in this interdisciplinary major should contact the chairperson of physics or mathematics.

Core Program (32 or 33 hours in mathematics/computer science; 27 hours in physics; 9 hours in supporting courses):

CS 125	FORTTRAN Programming	3
	or	
CS 260	Programming I	4

Plus 29 hours in mathematics including:

MA 122-123-223	University Calculus I, II & III	12
MA 210	Foundations of Discrete Mathematics	4
MA 224	Differential Equations	3
MA 231	Linear Algebra with Applications	4
	Plus at least two mathematics courses at the 300 level or higher as advised.	6

32 or 33

PH 230-231	General Physics I and II and PH 232-233 (Labs)	8
PH 234	Modern Physics	4
Two courses (6 hours) from:		6
PH 330	Thermodynamics	
PH 331	Theoretical Mechanics	
PH 333	Electricity and Magnetism	
PH 431	Intro. to Quantum Mechanics	
Plus 9 hours from PH 321-479, 490		9
		27

Plus 9 hours of supporting courses as advised 9

In satisfying the listed requirements, students must take
MA 323 and MA 420
or
MA 323 and PH 425
or
PH 425 and PH 426

Cooperative Engineering and Cooperative Agriculture

The Department of Mathematics and Computer Science participates in the Cooperative Engineering and the Cooperative Agriculture programs. Refer to descriptions of these programs on page 46 and page 82, respectively.

MA 103. Mathematics of Finance

D

Simple and compound interest, annuities, extinction of debts, bonds, depreciation, life insurance, computing techniques. Applications of these topics included
Prerequisite N.Y.S. Regents Course II or equivalent. 3 hours credit

MA 104. Introduction to Data Analysis

A

Survey of a variety of topics used in the analysis of data computer use; statistics; probability; elementary functions. May not be taken for credit by students who have previously completed one or more of the following CS 105, any mathematics course beyond MA 104, or any 200 level statistics course. *prerequisite* N.Y.S. Regents Course I or equivalent. *3 hours credit*

MA 105. College Algebra

A

(This course is intended for students who did not complete N.Y.S. Regents Course 111 or who did not perform well in this course.) Development of skills in handling polynomials and algebraic expressions; applications to equations and inequalities; emphasis on problem solving techniques. *prerequisite* N.Y.S. Regents Course II or equivalent. *3 hours credit*

MA 106. Precalculus Mathematics

A

(This course is intended exclusively for students who intend to take calculus and need additional preparation.) This course studies functions and graphing with polynomials, rational functions, exponential and logarithmic functions, and trigonometric functions, *prerequisite* N.Y.S. Regents Course/II or MA 105 or equivalent. *3 hours credit*

MA 108. Mathematics for the Management, Life and Social Sciences

A

An introduction to concepts in mathematics considered essential in business, biology, and the social and behavioral sciences. Topics are selected from linear models, matrices, linear programming, nonlinear models, probabilistic models. Included are applications to biology, business, economics and the mathematics of finance
Prerequisite N.Y.S. Regents Course 111 or MA 105 or equivalent. 3 hours credit

MA 109. Problem Solving

D

A study of strategies for solving problems. An introduction to the use of probability, statistics, and algorithm construction in the solution of a variety of problems
Prerequisite Permission of instructor. 3 hours credit

MA 110. Matters Mathematical**A**

A course for non-mathematics majors intended to communicate the real-world significance of mathematics. Emphasis on applications from several areas of mathematics. Some topics design of street networks, planning and scheduling, weighted voting systems, fair division and apportionment, measuring populations and the universe, and statistics.
prerequisite N.Y.S. Regents Course 111 or equivalent *3 hours credit*

MA 117. Why Mathematics?**A**

The aim of this course is to acquaint the liberal arts student with the nature of mathematics and what mathematicians do. The emphasis will be on presenting ideas and mathematical concepts rather than attaining certain computational skills. Ideas from algebra, geometry, number theory, set theory and topology will be presented with emphasis on their history and relevance to other disciplines. prerequisite Three years of high school mathematics *3 hours credit*

MA 120. Survey of Calculus I*A**

An introduction to differential calculus for functions of a single variable, with applications to the behavioral, management and social sciences. Not open to students majoring in mathematics, physics or chemistry. prerequisite N.Y.S.-Regents Course 111 or MA 105 *3 hours credit*

MA 121. Survey of Calculus II*A**

Introduction to integral calculus for functions of a single variable and to the calculus of functions of several variables. Included are techniques of integration and differentiation, and applications of these techniques to the behavioral, management and social sciences. Not open to students majoring in mathematics, physics or chemistry. prerequisite MA 120. *3 hours credit*

**Credit will not be given for both MA 120 and 122 nor for both MA 121 and 123.*

MA 122. University Calculus I*A**

Differential and integral calculus for functions of a single variable along with applications to the physical sciences and geometry. prerequisite Four years of college preparatory mathematics or MA 106. *4 hours credit*

MA 123. University Calculus II*A**

Calculus of transcendental functions; techniques of integration; applications to the physical sciences and geometry. *Prerequisite* MA 122. *4 hours credit*

**Credit will not be given for both MA 120 and 122 nor both MA 121 and 123.*

MA 125. Software for Mathematics**A**

Appropriate software for mathematics students such as the programming language True BASIC, computer algebra systems, such as DERIVE, and scientific word processors, such as EXP.
Prerequisite MA 122. *2 hours credit*

MA 200. Statistics**D**

Elements of probability theory; fundamental concepts and techniques of statistics with applications. prerequisite Three years of high school mathematics or MA 105. *3 hours credit*

Note *Only one statistics "200" course can be taken for credit.*

MA 201. Structure of Number Systems**A**

(A basic course open only to majors in elementary education.) For students planning to teach in elementary school, the meaning, development, and communication of number ideas, and the logical structure of number systems to base 10 and other bases; the how and why of the basic algorithms of arithmetic; problem solving. Not open to freshmen. *3 hours credit*

MA 202. Concepts of Modern Mathematics**D**

(A basic course open only to majors in elementary education.) For students planning to teach in elementary school, some fundamental concepts, structure, and operations of elementary modern algebra; also fundamental concepts of informal geometry. Not open to freshmen. *3 hours credit*

MA 210. Foundations of Discrete Mathematics**A**

A careful study of the foundations of discrete mathematics, with applications to computer science. Topics from logic and set theory, elementary number theory, relations, functions, mathematical induction, basic combinatorics. prerequisite One year of college-level mathematics including MA 120 or MA 122, and one semester of computer science. 4 hours credit

MA 223. University Calculus III**A**

Vector algebra; calculus of functions of several variables including multiple integration; applications to the physical sciences and geometry. *Prerequisite* MA 123. 4 hours credit

MA 224. Differential Equations**A**

An introductory course with emphasis on methods of solution of differential equations and applications in physical settings. Topics include first order equations, homogeneous equations with constant coefficients, undetermined coefficients, variation of parameters, power series solutions, Laplace transforms. *Prerequisite* MA 223. 3 hours credit

MA 231. Linear Algebra with Applications**A**

A thorough treatment of linear algebraic systems. Matrix algebra; determinants; vector spaces; linear independence; basis and dimension; inner product spaces; least squares approximation; eigenvalues and eigenvectors; diagonalization. Selected applications to physics, economics, geometry, statistics, and differential equations. *Prerequisites* MA 123 and 210. 4 hours credit

MA 315. Theory of Equations**C**

Study of the theory of polynomial equations. Rational, real and complex roots of algebraic equations, the Remainder and Factor Theorems, Fundamental Theorem of Algebra, solutions of cubic and bi-quadratic equations and approximation of roots. *Prerequisites* MA 210. 3 hours credit

MA 322. Partial Differential Equations**D**

A first course with emphasis on boundary value problems encountered in mathematical physics. Fourier series; separation of variables; D'Alembert's solution; the heat, wave and potential equations. Additional topics such as Sturm-Liouville problems or Laplace transforms as time permits. *Prerequisite* MA 224. 3 hours credit

MA 323. Intermediate Real Analysis**B**

A careful presentation of the ideas of calculus that are developed intuitively in the usual freshman-sophomore calculus courses. Techniques of proof in analysis; countable sets and cardinality; the real line as a complete ordered field; some topology of the real line; sequences and their limits; continuous functions and their properties; other topics as time permits. *Prerequisite* MA 210 and 223. 3 hours credit

MA 325. Introduction to Numerical Analysis**B**

An introductory course in numerical methods for digital computers. Floating point arithmetic, errors, error analysis. Roots of equations, systems of equations. Numerical differentiation and integration. Interpolation and least squares approximations. *prerequisites* MA 123 and knowledge of FORTRAN, APL, or Pascal. 3 hours credit

MA 331. Introduction to Abstract Algebra**B**

A study of algebraic structures, such as groups, rings, integral domains, and fields. Basic homomorphism theorems for groups and rings are presented. *Prerequisite*., MA 210 and 231. 3 hours credit

MA 332. Abstract Algebra with Applications**B**

A, continuation of the study of groups, rings, and fields, with applications to geometric symmetry, crystallography, switching networks, and error-correcting codes. *Prerequisite* MA 331. 3 hours credit

MA 335. Theory of Numbers**C**

Study of integers and their properties; divisibility; primes; congruences; multiplicative functions; quadratic residues; quadratic reciprocity; Diophantine equations. *Prerequisite* MA 210 and 231. 3 hours credit

MA 337. Introduction to Combinatorial Mathematics**B**

The addition, multiplication and pigeon-hole principles. Permutations and combinations, partitions and distributions; the binomial and multinomial theorems. Generating functions; recurrence relations; principle of inclusion-exclusion; combinatorial algorithms or designs as time permits. *Prerequisite* MA 210 and 231. 3 hours credit

MA 341. Introduction to Geometry**C**

An intensive study of Euclidean plane geometry from a synthetic standpoint. Congruence; distance and area; parallelism; basic figures such as angles and triangles. Brief consideration given to non-Euclidean geometries such as hyperbolic geometry. *Prerequisite* MA 210 and 231. 3 hours credit

MA 342. Geometry**D**

A presentation of projective geometry and the geometries which can be derived from it, using both synthetic and analytic approaches. *Prerequisite* MA 341. 3 hours credit

MA 350. Probability and Statistics**B**

Basics of probability; descriptive statistics; discrete and continuous distributions; confidence intervals and tests of hypotheses concerning means, variances, and proportions; simple linear regression; statistical packages on the computer. *Prerequisite* MA 123 and 210. 3 hours credit

MA 351. Applied Statistics**C**

Topics chosen from multiple regression; analysis of variance; sampling techniques; time series; nonparametric methods; applications to quality control. *Prerequisite* MA 231 and 350. 3 hours credit

MA 359. Probability Models in Operations Research**C**

Topics chosen from stochastic processes; birth-death processes; queueing theory; inventory theory; reliability; decision analysis; simulation. *Prerequisite* MA 231, 350 and CS 125 or CS 260. 3 hours credit

MA 375. Deterministic Models in Operations Research**C**

Topics chosen from linear programming and applications; network analysis; game theory; dynamic, integer and nonlinear programming. *Prerequisite* MA 210. 3 hours credit

MA 381. History of Mathematics**C**

A chronological study of the development of mathematics. Emphasis on the solution of selected mathematical problems associated with historical periods. *Prerequisite* MA 210. 3 hours credit

MA 400. Directed Study of Selected Topics**A**

Independent study of a selected list of readings approved by a faculty advisor. *Prerequisite* Permission of department. 1-6 hours credit

MA 405. Senior Seminar**A**

Studies from selected areas of mathematics. Written reports and formal presentations will be required. *Prerequisite* Senior standing or consent of the instructor. 1 hour credit

**MA 408. Mathematics Seminar
in Special Topics****D**

Selected readings, discussions, and reports on topics in mathematics. *Prerequisite* Permission of department. 3-6 hours credit

MA 420. Advanced Calculus**B**

Derivatives; infinite series including series of functions; geometry and topology of Euclidean n-space; limits and continuity for functions of several variables; properties of the integral for functions of two variables with specialization to the simpler one variable case, as time permits. *Prerequisite* MA 231 and MA 323. 3 hours credit

MA 421. Advanced Calculus**D**

Topics may vary, depending on instructor. Possibilities are partial differential equations, vector calculus or complex analysis. *Prerequisite* MA 420. 3 hours credit

MA 423-424. Real Analysis**D**

Topics may include theory of integration; sequences and series of functions; functions on Euclidean spaces and metric spaces; introduction to modern analysis. *Prerequisites* MA 231 and 323 for MA 423; MA 423 for MA 424. 3 hours credit *each semester*

MA 440. Graph Theory with Applications**C**

An introduction to graph theory. Topics chosen from connectivity, trees, eulerian and hamiltonian graphs, matchings, factorizations, and colorings. Applications chosen from the shortest path problem, communication networks, the travelling salesman problem, the optimal assignment problem, and scheduling algorithms. *Prerequisites* MA 210, 231 and CS 260. 3 hours credit

MA 475. Numerical Analysis**D**

Continuation of MA 325. Numerical solutions of differential equations, boundary value problems. Non-linear systems of equations, partial differential equations. Minimax approximations. Monte Carlo methods. *Prerequisites* MA 224 and 325. 3 hours credit

MEDICAL TECHNOLOGY/ BIOMEDICAL RESEARCH TECHNOLOGY

Office: 112 Jewett Hall

Patricia Smith Astry, *Director*

The multi-faceted educational approach of this program prepares students for careers in several high demand areas of science. (There are currently six clinical positions in hospitals alone available for each medical technologist in the United States.) Recent program graduates are employed as clinical scientists in hospital laboratories, industrial and biotechnology laboratories, and biomedical research facilities; and as sales representatives for pharmaceutical, medical instrumentation and computer corporations.

The innovative combination of a traditional program track in Medical Technology with a unique track in Biomedical Research Technology gives the graduate of the Fredonia program unique advantages in gaining employment in the aforementioned areas.

The first two years of the program include core courses in biology, chemistry, physics and mathematics that are required of all MT/BMRT majors. During the latter part of the sophomore year, students are encouraged to select one of the following program tracks:

Track 1: This program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences and the American Medical Association Council on Health Education. It is recommended for students wishing to prepare for careers in hospital laboratories, the biomedical industry, and pharmaceutical, instrumental and computer sales. The curriculum requires the student to study three years at the college, and one year in an accredited clinical hospital program. Contracted agreements with five hospitals ensure internship placement for qualified students who have successfully completed college requirements.

The clinical year consists of study in a hospital laboratory, where students are supervised and instructed by medical technologists and physicians. After successful completion of the internship, students receive clinical certification from the hospital, 30 college credits, and the Bachelor of Science degree in Medical Technology from the College at Fredonia. Students are then eligible to take national certification examinations for medical technology, such as the National Registry Examination given by the American Society of Clinical Pathologists.

The percentage of Fredonia Medical Technology students passing this Registry Examination on the first attempt has been 93 percent over the past 10 years.

Under affiliation agreements entered into by the college, the training of students takes place under the direction of the persons named at the following hospitals:

Pramod Carpenter, M.D., medical director,
Medical Technology Program,
St. Mary's Hospital, Rochester, N.Y.

Barbara Davis, M.S., MT (ASCP), program director,
WCA Hospital, Jamestown, N.Y.

Donald Furman, M.D., medical director,
WCA Hospital, Jamestown, N.Y.

Jean Matta, M.S., MT (ASCP), program director,
Albany Medical Center Hospital, Albany, N.Y.

Arlene Nikiel, M.S., MT (ASCP), program director,
Medical Technology Program,
St. Mary's Hospital, Rochester, N.Y.

P.A. Reraegio, M.D., medical director,
Catholic Medical Center, Woodhaven, N.Y.

Joseph Rizzo, M.S., MT (ASCP), program director,
School of Medical Technology,
Rochester General Hospital, Rochester, N.Y.

W.A. Thomas, M.D., medical director,
Albany Medical Center Hospital, Albany,
N.Y.

Zygmunt M. Tomkiewicz, M.D., medical director,
Medical Technology Program,
Rochester General Hospital, Rochester, N.Y.

Ann-Paula Zero, M.S., MT (ASCP), program director,
Catholic Medical Center, Woodhaven, N.Y.

Track 11: This option is recommended for students interested in graduate school, biomedical and pharmaceutical sales, biomedical research and biotechnology. The student must complete the course work required in Track I, as well as a concentration of 15 or more credits. The concentration course work will be directed toward the students' ultimate career goal, and will include at least 6 hours of upper level biology courses, as well as other appropriate courses agreed upon by the advisor and student.

The BMRT student is strongly advised to perform undergraduate research at the college, or an internship at a research, industrial or pharmaceutical institution. Provisions for these internships are made available to the eligible Fredonia MT/BMRT student by institutions such as Roswell Park ' Memorial Institute. Upon successful completion of Track II, the B.S. degree is awarded.

Track 111: This option combines the requirements of Tracks I and II, enabling the student to be well qualified for all clinical, research, industrial and sales opportunities mentioned earlier. After four years of study completing requirements and concentration courses at Fredonia, the qualified student may complete a clinical year of study at a hospital as described under Track I. Upon successful completion of Track III, the B.S. degree is awarded.

Requirements for the Bachelor of Science degree in Medical Technology:

Required Biology Courses:

BI 121	Human Anatomy	3
BI 131	Principles of Biology and BI 132 (Lab)	4
BI 234	General Zoology and BI235 (Lab)	4
BI 251	Fungal Pathogens	1
BI 256	Intro. to Clinical Sciences	1
BI 333	Biochemistry and BI 334 (Lab)	4
BI 336	Mammalian Physiology	3
BI 338	Microbiology	3
BI 344	Parasitology	1
BI 431	Senior Seminar	
	or	1
BI 432	Senior Seminar	
BI 453	Basic Hematology	1
BI 461	Immunology and Serology	3
		29
	Clinical Internship	30
	or	
	Biomedical Research Concentration	15

Required Supporting Courses:

CH 115*116	General Chemistry I & II and CH 125-126 (Labs)	8
CH 215-216	Organic Chemistry I & II and CH 225-226 (Labs)	8
MA 120	Elements of Calculus I	3
	or	
122	University Calculus I	4
PH 121-122	College Physics I & II and PH 123-124 (Labs)	

PH 230-231 or 8
General Physics I & II and PH 232233 (Labs)
27 or 28

CLINICAL HOSPITAL COURSES

Each hospital uses slightly different names in categorizing areas of study. The basic categories are as follows:

CLINICAL CHEMISTRY: Lecture and laboratory sequence involving the study and detection of biochemical components in body fluids. Methodology, theory, disease states, and instrumentation are stressed.

CLINICAL MICROBIOLOGY: Lecture and laboratory rotation in which bacteria, fungi, parasites and viruses are studied, the emphasis being on bacteria. Biochemical, morphological and serological properties are emphasized.

HEMATOLOGY / COAGULATION: Lecture and laboratory sequence concerned with the study of blood. Theory and techniques dealing with cellular components and coagulation mechanisms of normal and abnormal blood are major topics.

IMMUNOHEMATOLOGY (Blood Bank): Lecture and laboratory rotation dealing with the immunological properties of the blood, especially concerning the various blood groups and transfusion therapy. (Other theories and techniques of basic immunology may be included here or in another category.)

URINALYSIS: Lecture and laboratory presentation of normal and abnormal physical, chemical, and cellular properties of urine.

MUSIC

Office: 1004 Mason Hall

Peter J. Schoenbach, *Director***David Evans**, *Chairperson of the Faculty***Curricular Area Chairpersons:****Music History/Literature**

James A. Davis

Music Theory and Composition

Marc J. Guy

Sound Recording Technology

David Kerzner

Music Education

W. Stephen Mayo

Music Therapy

Constance E. Willeford

Applied Studies

Phyllis O. East, Keyboard

Theodore C. Frazier, Percussion/Harp

John C. Gillette, Woodwind

Harry P. Jacobson, String

Barry M. Kilpatrick, Brass

Patrick C. Mason, Voice

The School of Music is accredited by the National Association of Schools of Music and is a nationally recognized, primarily undergraduate school, whose mission is to prepare students for musical and professional competence in a changing society and to promote the musical art in contemporary life. Its emphasis is on professional programs - including teacher preparation - within the context of changing societal needs. The School of Music recognizes the importance of the musical heritage of Western culture, while at the same time reflects the musical traditions of an increasingly multicultural and technologically sophisticated society.

An audition is required for admission to a music program. Accepted students are admitted directly into a music major curriculum even though many new first-year students are not certain as to the specific major in music that they wish to pursue. Therefore the program of study in the first year has been arranged so that all first-year students essentially have the same course work. During the second semester of study, after they have had opportunities to attend general orientation sessions, speak privately about their musical aspirations with advisors, have their abilities assessed by their teachers, and experience the demands made of the music majors, each freshmen music student must review the declaration of a major. The next section describes *Core Curriculum* of required studies common to every music degree program, followed by lists of the specific requirements for each degree program as accredited by the National Association of Schools of Music.

<i>Core Curriculum:</i>		<i>34 hours</i>
MU 100	Recital Seminar	0
MU 120	Concert Attendance	0
MU 019-020	Ensembles	0
MU 105-106	Applied Music	4
(125-126 for Mus. B. Music Education and Performance)		
MU 113	Voice Class	1
MU 117-118	Piano Class	2
MU 121-122	Aural Theory I & II	4
MU 123-124	Written Theory I & II	4

MU 131-132	Conducting I & II	2
MU 160	History of Western Music: Middle Ages to 1800	3
MU 221-222	Aural Theory III & IV	4
MU 223~224	Written Theory III & IV	4
MU 252	History of Western Music: 1800-1875	3
MU 255	History of Western Music: 1875-Present	3

Bachelor of Arts Degree Programs in Music:

General Requirements

Core Curriculum		34
MU 200	Recital Seminar	0
MU 205-206	Applied Music	4
MU 300	Recital Seminar	0
MU 305-306	Applied Music	4
	One ensemble for each semester of enrollment in applied music	0
		42

A. For a Major in Applied Music (46 hours):

<i>General Requirements</i>		42
MU 400	Recital Seminar	0
MU 405-406	Applied Music	4
	Graduation Recital	0

B. For a Major in Theory of Music / Composition (51 hours):

<i>General Requirements</i>		42
	Approved courses in music theory and composition	6
MU 491	Senior Project in Theory	3

Note: As a graduation requirement, students majoring in Music Theory/Composition must present an acceptable project (essay, thesis, composition, or arrangement) written under the advisement of the Music Theory area chairperson or his/her designee. This project may involve a demonstration performance.

Bachelor of Fine Arts with a Major in Musical Theatre

The major in Musical Theatre is offered in conjunction with the Department of Theatre Arts. Students follow either the Theatre Track requirements listed in the Theatre section (page 173) or the Music Track (requirements as follows):

Core Curriculum		34
MU 137-138	Diction for Singers (IPA/Italian)	1
MU 139-140	Diction for Singers (German and French)	1
MU 200	Recital Seminar (two semesters)	0
MU 217-218	Piano Class	2
MU 235-236	Applied Voice	6
MU 300	Recital Seminar.(two semesters)	0
MU 317-318	Piano Class	2
MU 335-336	Applied Voice	6
	Any two:	4
MU 383	French Song	
MU 385	Russian Diction and Song	
MU 387/ LG 387	German Song	
MU 400	Recital Seminar (two semesters)	0
MU 417-418	Piano Class	2
MU 435-436	Applied Voice	6

MU 019-020	Choral Ensembles (four)	0
MU 019-020	Lyric Theatre Workshop or Practicum (four, at least one must be in Practicum)	0
MU XXX	Music Elective to be de- termined by advisement	1
		65
Theatre		
TA 101-102	Theatre Practice	0
TA XXX	Course as Advised	3
TA 131-132	Acting I & II	6
TA 201-202	Theatre Practice	2
TA 220	Makeup I	3
TA 231-232	Acting III & IV	6
TA 453	Special Studies in Musical Theatre	3
		21
Dance		
DA 105	Folk Dance	1
DA 111	Fundamentals of Dance	2
DA 211	Dance II	2
DA XXX	Courses to be determined by advisement	4
		9

Each B.F.A. candidate will be evaluated by music, theatre arts and dance faculty at the end of the sophomore year. Students with unfavorable evaluations will not be permitted to continue study in the program. B.F.A. candidates in Musical Theatre are expected to maintain an overall grade point average of 2.7 in their major course of study. All candidates must present a senior year recital performance, the suitability and location of which are to be determined and approved in advance by faculty advisors in dance, music and theatre. The recital, which must include acting, dancing and singing, must be between 45 and 50 minutes in length.

Bachelor of Music Programs in Music Education

For Major in Music Education (Mus. B. degree, certification to teach music in the public schools): The Music Education degree program provides the means by which students can acquire and demonstrate the required competencies for certification to teach in the elementary and secondary schools. *The New York State Education Department also requires a standardized test of both general and professional knowledge (most recently the National Teachers Examination soon to be superseded), and a Child Abuse Seminar for all students being recommended for teaching certification in Early Childhood, Elementary Education, Secondary Education, Speech Pathology/Audiology, and all special subject fields.*

General Requirements:

Core Curriculum		34
MU 200	Recital Seminar	0
MU 217-218	Piano Class	2
MU 225-226	Applied Music	4
MU 231-232	Conducting III & IV	2
MU 300	Recital Seminar	0
MU 325-326	Applied Music	4
ME 155	Practicum	0
ME 250-251	Foundations of Music Educ. I & II	4
ME 255-256	Practicum	0
ME 300	Foundations of Music Educ. III	3
ME 355-356	Practicum	0
ME 400	Professional Semester	14
	Twelve ensemble participations	0
		67

The program is so organized that a student will have a General/Choral, or Instrumental concentration.

General Choral Concentration requirements are:

For Non-Piano/Non-Voice Students: MU 317-318, 417, ME 203204, 210-211,295 or alternative by advisement, 301, 302, 391-392. Music Education electives by advisement. A minimum of six of the twelve ensemble participations must be in choral ensembles.

For Keyboard Students: MU 344, 415-416, ME 203-204, 210211,295 or alternative by advisement, 301,302, 310-311,391-392. Music Education electives by advisement. A minimum of six of the twelve ensemble participations must be in choral ensembles.

For Voice Students: MU 137138, 139-140, 317-318, 417, ME 210-211,295 or alternative by advisement, 301,302, 310-311,391392. Music Education electives by advisement. A minimum of six of the twelve ensemble participations must be in choral ensembles.

For General Music K-8 Endorsement (only for students who by special audition are qualified to begin both keyboard and voice applied instruction at the MU 125 level): This endorsement requires either four semesters applied major study in keyboard and three semesters in voice or four semesters applied major study in voice and three semesters in keyboard. MU 344, 415-416, ME 210-211, 295 or alternative by advisement, 301,302, 310-311,391-392. Music Education electives by advisement. A minimum of six of the twelve ensemble participations must be in choral ensembles.

Instrumental Concentration requirements are:

For Instrumental Applied Students: ME 260, 261,262, 270, 271, 272, 285, 301 or 302, 304, 305, 321, 393-394. Successful completion of competency examinations on specified secondary instruments. Music Education electives by advisement. A minimum of three of the twelve ensemble participations must be in choral ensembles.

For Keyboard or Voice Students (this option only by permission of the Area Chair for Music Education): MU 315-316 (additional permission required), ME 260, 261, 262, 270, 271,272, 285, 301 or 302, 304, 305, 321,393-394. Successful completion of competency examinations on specified secondary instruments. Music Education electives by advisement. A minimum of six of the twelve ensemble participations must be in instrumental ensembles.

Students who can demonstrate the competencies and any additional requirements associated with any course will be excused from taking the course and may petition to receive credit for that course. However, since there is no upper limit in skill development, it is recommended that students use the time thus saved to complete a like amount of advanced course work from the area(s) in question. Students are encouraged to elect as much additional course work as possible in their concentration, in music education, or in performance, theory, history and literature in consultation with their academic advisor and/or the Area Chair for Music Education.

Students must complete at least 120 total credit hours of course work in order to meet the minimum college requirements for the awarding of a degree.

Entrance to the Professional Semester (Student teaching and assorted special seminar classes held irregularly during student teaching.) The student must:

1. Have an overall 2.0 GPA;
2. Have an average of 2.5 in all ME required courses and no less than a C in any single ME course;
3. Have a 2.0 average in MU required courses;
4. Have satisfactorily completed all stated prerequisite competencies for performance, musicianship, and music education (most competencies must be completed prior to student teaching either through course completion or special examination; some will be determined during student teaching).
5. Have the recommendation of the Music Education professional staff. Recommendations of the Music Education , professional staff are made on the basis of their contact with the student mainly in the Foundations in Music Education sequence of courses and the Methods Course Sequence. (viz., ME 250, 251,300, 301, 302, 304, 305). Criteria are (1) attitude

toward teaching music including realism and accuracy; understanding the profession; (2) commitment, responsibility, and dedication to professional growth (i.e. "professionalism"); (3) ability to function under pressure; personal stability; (4) communication with professor(s) and peers; suitability of social adjustment and relations.

6. Have completed and submitted student teaching application, personal data forms, and portfolio by the announced due dates.

Other Activities During the Professional Semester

Because of the time involved and the importance of student teaching in the preparation of a teacher:

1. Students are expected not to take part in any college courses or formal (School of Music sponsored) extracurricular activities during the professional semester;
2. No graduation recitals or equivalent curricular performances are permitted on the part of Music Education majors during the professional semester;
3. If at all possible, students are urged to avoid other regular obligations, such as jobs, during the professional semester since student teachers often must stay after school for rehearsals and return evenings for rehearsals, concerts, and the like.

Bachelor of Music Program in Composition

The major in Composition requires 76 hours in music, including the following:

Core Curriculum		34
MU 200	Recital Seminar	0
MU 217-218	Piano Class	2
MU 205-206	Applied Music	4
MU 300	Recital Seminar	0
MU 303	Counterpoint in Music History	3
MU 305-306	Applied Music	4
MU 361	Jazz improvisation	2
	or	
MU 401	Orchestration	
	or	3
MU 403	Jazz Arranging	
MU 440-441	Comp. in Electronic Media I & II	6
MU 491	Senior Project in Theory	3
	Composition classes	12
	Music Elective	3

One ensemble for each semester of enrollment

Three participations in contemporary performance ensembles Senior composition recital
Completion of 20th century repertoire examination

(Fifteen hours of elective course work must be selected from a list of approved non-music courses. Contact the Area Chair for Music Theory and Composition for an updated listing.)

Bachelor of Music Programs in Performance

General Requirements:

core Curriculum		34
MU 200	Recital Seminar	0
MU 245-246	Applied Music	8
MU 300	Recital Seminar	0
MU 345-346	Applied Music	8
MU 347-348	Applied Music Recitation	2
MU 400	Recital Seminar	0
MU 445-446	Applied Music	8
MU 447-448	Applied Music Recitation	2
	Junior & Senior Recitals	0
		62

For a Major in Performance, Percussion (70 hours)

<i>General Requirements</i>		62
MU 217-218	Piano Class	2
MU 355-356	Performance Practicum	0
	Music theory elective	3
	Music history elective	3
	Fourteen participations in ensembles	

For a Major in Performance, Organ (72 hours)

<i>General Requirements</i>		62
	Applied piano minor	4
	Music theory elective	3
	Music history elective	3
	Fourteen participations in ensembles	

For a Major in Performance, Piano (68 hours)

<i>General Requirements</i>		62
	Piano literature & pedagogy	6
	Fourteen participations in ensembles, including four in chamber ensembles	

For a Major in Performance, Stringed Instruments (70 hours)

<i>General Requirements</i>		62
MU 217-218	Piano Class	2
MU 355-356	Performance Practicum	0
	String literature	3
	Chamber music literature	3
	Fourteen participations in ensembles, including four in chamber ensembles	

For a Major in Performance, Voice (77 hours)

<i>General Requirements</i>		62
MU 217-218	Piano Class	2
MU 317-318	Piano Class	2
MU 344	Vocal Pedagogy	3
MU 417-418	Piano Class	2

(or successful completion of one semester of accompanying work under the supervision of the MU 418 Class Piano teacher)

	Music theory elective	3
	Music history or literature elective	3
	Fourteen participations in ensembles including four in Lyric Theatre Practicum*	
	Foreign language as advised	

For a Major in Performance, Wind Instruments (70 hours)

<i>General Requirements</i>		62
MU 217-218	Piano Class	2
MU 355-356	Performance Practicum	0
	Music theory elective	3
	Music theory elective	3
	Fourteen participations in ensembles, including four in chamber ensembles	

*All voice performance majors are required to have earned a minimum of four semesters Practicum credit by the time they graduate. The required freshman year participation in Practicum may count as one of the required semesters.

The Lyric Theatre-Practicum may be earned in one of two ways:

1. By working on a set, costume, lighting, or running crew for one School Music stage production during the semester which would require two to three evenings attendance a week for a period of approximately five weeks.
2. By performing a leading or secondary role or singing in the chorus of a college musical stage production during the semester.

Bachelor of Science Program in Music Therapy

The program is designed to provide academic, clinical and professional preparation necessary for entry level music therapists and registration with the National Association for Music Therapy, Inc. (RMT). A national certification exam is required to become Board Certified (BC). The program is interdisciplinary and requires a six-month clinical internship upon completion of all academic course work.

Music Therapy majors must achieve a minimum grade of B- in all courses designated with the prefix MY.

Core Curriculum		34
MU 200	Recital Seminar	0
MU 205-206	Applied Music	4
MU 217-218	Piano Class	2
MU 231-232	Conducting III & IV	4
MU 317-318	Piano Class	2
MU 417-418	Piano Class	2
	Successful Completion of Piano Proficiency Examination	0
One course in arranging/composition, selected from:		2-3
MU 237-238	Composition Seminar	
MU 361	Jazz Improvisation	
MU 401	Orchestration	
MU 403	Jazz Arranging	
MU 404	Choral Arranging	
MU 440	Composition in Electronic Media I	
	Eight ensemble participations	0
ME 210-211	Guitar Class	2
ME 310-311	Guitar Class	2
MY 115	Intro. to Music Therapy	2
MY 270	Social Instruments	2
Elective Secondary Applied Classes		2
MY 300	Orientation to Clinical Practicum	2
MY 301	Seminar in Music Therapy	3-6
MY 302	Practicum in Music Therapy	0
MY 345	Foundations of Music Therapy	3
MY 401	Principles and Practice of Music Therapy	3
MY 414	Psychology of Music	3
MY 415	Methods & Materials in Music Therapy	3
MY 422	Psychological Research in Music	3
MY 450	Internship in Music Therapy	0
BI 121	Human Anatomy	
	or	3
BI 261	Human Biology	
ED 225	Developmental Psychology	3
ED 250	Intro. to the Exceptional Learner	3
PY 129	Intro. to Psychology	3
PY 246	Personality	3
PY 356	Abnormal Psychology	3
PY 447	Intro. to Counseling	3

For a Minor in Music (Applicants for the music minor must achieve an acceptable score on the School of Music Aural Skills Test prior to admission to the program.): 28 hours in music, including MU 121-122, 123-124, 160, 252, 255; four semesters of MU 104; four participations in ensembles; and 9 hours of music electives in theory, history, literature or music education, at least 6 of which must be from upper division courses (300-400 level).

COURSES FOR NON-MUSIC MAJORS

The following courses have been designed especially for students who are not music majors. It is the policy of the School of Music to admit non-major students to most music courses for which they have the interest and ability and for which they have met the course prerequisites. Exceptions to this policy are in studio classes (private instruction) where non-major students must audition and then be assigned on a space-available basis and in MU 121-124, where permission must be obtained from the School of Music.

MU 101. Music Theory for Non-Majors

A

For students not majoring in music. Provides workable knowledge of rudiments (melody, harmony, texture, and form) and understanding of principles involved in composing, arranging, and harmonizing. Experiences in writing and reading music, sight singing, ear-training, and creative activities. 3 hours credit *each semester*

MU 103. Piano Class for Non-Music Majors

A

For non-music majors with absolutely no piano background or skills. Development of skills at the keyboard through major and minor scales and arpeggios, elementary piano pieces, sight-reading, and simple chord progressions in common keys. *1 hour credit*

MU 104. Applied Music Class for A Non-Music Majors

Group instruction in voice, keyboard, and orchestral instruments for students not majoring in music. Previous experience in performance medium required. Enables student to enhance performance ability in performance area. May involve rental of instrument. Course may be repeated for credit. *1 hour credit each semester*

MU 115. Music in Western Culture

A

Introduction to music in Western civilization materials of music {melody, harmony, rhythm, tempo, dynamics, musical structure and design, and musical style,; various performance media. Major composers of each musical epoch discussed, musical examples listened to in class. Covers 19th century Romanticism; 18th century classicism; medieval, renaissance, and baroque music; the 20th century, and the American scene. No background in music assumed. For non-music majors. 3 hours credit

MU 262. American Music

C

Survey of U.S. music, Colonial times to present. Such American developments studied as music of first New England School, vernacular and black music of 19th century, jazz, and mixed media music of 20th century. American music which parallels and absorbs European developments and distinctly American contributions to Western music, such as music of Ives, Gershwin, and Copland included. 3 hours credit

MU 265. History of Jazz

B

For majors and non-majors. History of jazz, early African-American origins through 1970s. Survey of principal movements and personalities in jazz and sociological and cultural influences on these movements. 3 hours credit

MU 267. African American Music

B

Non-chronological history of African American music from its African roots through American forms of work songs, cries, hollers, spirituals, blues, ragtime, jazz, rhythm and blues, rock and roll, soul, gospel, reggae, rap, and zydeco, and music written by 20th century black composers. 3 hours credit

MU 269. Music Criticism

B

Development of critical method and vocabulary for discussing and writing about music and performance. Intensive guided listening and critical discussion; individual projects include the reviewing of concerts and recordings. prerequisite MU 115 or MU 160 or permission of instructor. *3 hours credit*

MU 333 Musics of the World

B

Non-technical introduction to ethnomusicology. Survey of musical styles from around the world emphasizing how music reflects and influences society. 3 hours credit

ME 215. Music, Play, and Self**B**

A course primarily for students with little or no previous musical knowledge or skill. Examines the relationships among music, play and self, especially with regard to children. Emphasizes activity, creativity and personal expression. 3 hours credit

Non-music majors are encouraged to perform in the All-College Band and/or the Festival Chorus (MU 019-020), for which no audition is required. Non-major students may also audition to perform in all other School of Music ensembles.

MUSIC THEORY, COMPOSITION, ELECTRONIC MUSIC**MU 121. Aural Theory I****A**

Course deals with various aspects of ear training including melodic, harmonic, and formal perception as well as sightsinging skills. prerequisite Permission of School of Music. 2 hours credit

MU 122. Aural Theory II**A**

A continuation of MU 121 dealing with various aspects of ear training including melodic, harmonic, and formal perceptions well as sightsinging skills. prerequisite MU 121 or permission of instructor. 2 hours credit

MU 123. Written Theory I**A**

Course deals with the rudimentary aspects of harmony, melody, form, and style analysis. prerequisite Permission of School of Music. 2 hours credit

MU 124. Written Theory II**A**

A continuation of MU 122 dealing with more advanced aspects of harmony, melody, form, and style analysis. *Prerequisite* MU 123 or permission of instructor. 2 hours credit

MU 221. Aural Theory III**A**

A continuation of MU 123 dealing with more advanced aspects of ear training including melodic, harmonic, and formal perception as well as sightsinging skills *Prerequisite* MU 122 or permission of instructor. 2 hours credit

MU 222. Aural Theory IV**A**

A continuation of MU 221 dealing with the more advanced aspects of ear training including melodic, harmonic, and formal perception as well as sightsinging skills *Prerequisite* MU 221 or permission of instructor. 2 hours credit

MU 223. Written Theory III**A**

A continuation of MU 124 dealing with more advanced aspects of harmony, form, and style analysis. prerequisite MU 124 or permission of instructor. 2 hours credit

MU 224. Written Theory IV**A**

A continuation of MU 223 dealing with advanced harmony, form, and style analysis *Prerequisite* MU 223 or permission of instructor. 2 hours credit

MU 237-238. Composition Seminar**B**

First semester introduction to free composition concentrating on creative musical inclinations of individual student. Second semester continuation of first, increased attention to preparing student compositions for performance. prerequisite MU 122-124 (or permission of instructor) to 237; 237 to 238. 3 hours credit each semester

MU 337-338. Composition Seminar**B**

Original work in composition accompanied by study and analysis of past and contemporary musical compositions and creative concepts. prerequisite MU 222-224 (or permission of instructor) to 337; 337 to 338. 3 hours credit *each semester*

MU 354. Form and Analysis**C**

Development of skills for analysis of musical form, from small song forms to large symphonic works. prerequisite MU 222-224 or permission of instructor. 3 hours credit

MU 361. Jazz Improvisation**B**

A performance lab and study of various theoretical foundations of improvised jazz. Mainstream style is emphasized. *Prerequisites* MU 122 and 124 or permission of instructor. 2 hours credit

MU 370-379. Special Topics in Music**D**

Studies of music areas supplementing, not replacing, regular courses. Topics, credit hours, and instructor determined by school. 13 hours credit

MU 401. Orchestration**C**

Fundamentals of scoring for orchestra with particular attention to range, color, transposition, and technical possibilities of individual instruments. Special characteristics of the various choirs and appropriate scoring for different styles of compositions. Student papers projected on screen for class performance and evaluation. *Prerequisites* MU 122-124, and 160, or permission of instructor. 3 hours credit

MU 403. Jazz Arranging**D**

Study of popular and jazz harmony. Techniques of writing for various instrumental combinations. Laboratory performance of work and supervised creative work using electronic piano studio. *Prerequisite* MU 222-224. 3 hours credit

MU 404. Choral Arranging**B**

Fundamental techniques of arranging for a cappella and accompanied choral groups. Deals primarily with problems of public school-aged choral ensembles, their specific characteristics and limitations, including ranges, voice combinations, and suitable material. Includes consideration of use of special choral devices and treatments *Prerequisite* MU 222-224. 2 hours credit

MU 437/438. Composition Seminar**B**

Free composition in seminar and semiprivate consultations. *Prerequisites* MU 338 or permission of instructor; 437 prerequisite to 438. 3 hours credit *each semester*

MU 439. Composition Seminar**A**

Continuation of free composition with detailed study of 20th century compositional techniques. prerequisite Permission of instructor. 3 hours credit

MU 449. Composition in Electronic Media I**A**

Basic compositional and technical skills necessary for realization of electronic music. Emphasis on proper recording, editing, mixing, and synthesis techniques as they relate to the composer. Analog synthesis is stressed. An introduction to digital synthesis (MIDI, FM, computer-assisted composition) also included. Brief historical survey of medium presented. prerequisite MU 122-124, and 160, or permission of instructor. 3 hours credit

MU 441. Composition in Electronic Media II**A**

Electronic music composed and realized using a variety of computer-related techniques. Focus on digital synthesis (FM) using MIDI with the latest hardware (synthesizers, sampling machines, etc.) and soft-ware (sequencers, editors, librarians, etc.). Related topics include MIDI programming, microcomputers in music, and student research presentations. prerequisite MU 440 or permission of instructor. 3 hours credit

MU 460461. Independent Study**A**

Maximum of 6 hours of independent study in music or music education exclusive of applied music. Projects selected from subject areas not available in regularly scheduled course offerings. Well in advance of registration for either regular or summer session, student must complete independent study request form (in triplicate) available in School of Music office.

1 to 3 hours credit per course

MU 470-471. Special Topics**D****Workshop**

Usually summer or other short-term workshops/institutes dealing with specific music literature, topics, problems, or teaching approaches and techniques *2 to 6 hours credit*

MU 491. Senior Project in Theory**A**

Final project in theoretical analysis, original composition, or combination of the two, scope and content individually designed with mutual consent of student and faculty advisor, and approval of program area chairperson. prerequisite Senior standing in B .A. theory program *3 hours credit*

**MUSIC HISTORY
AND LITERATURE****MU 160. History of Western Music Middle Ages to 1800****A**

Study of music history from Gregorian Chant to the Classic era. *3 hours credit*

MU 252. History of Western Music 1800-1875**B**

Study of music history from late Classicism to late Romanticism *3 hours credit*

**MU 255. History of Western
Music 1875-Present****B**

Study of music history from late Romanticism and Impressionism to the present day *3 hours credit*

MU 262. American Music**C**

Survey of U.S. music, colonial times to present. Such American developments studied as music of first New England School, vernacular and black music of 19th century, jazz, and mixed media music of 20th century. American music which parallels and absorbs European developments and distinctly American contributions to Western music, such as music of Ives, Gershwin, and Copland included. *3 hours credit*

MU 265. History of Jazz**B**

For majors and non-majors. History of jazz, early African-American origins through 1970s. Survey of principal movements and personalities in jazz and sociological and cultural influences on these movements. *3 hours credit*

MU 267. African American Music**B**

Non-chronological history of African American music from its African roots through American forms of work songs, cries, hollars, spirituals, blues, ragtime, jazz, rhythm and blues, rock and roll, soul, gospel, reggae, rap, and zydeco, and music written by 20th century black composers *3 hours credit*

MU 269. Music Criticism**B**

Development of critical method and vocabulary for discussing and writing about music and performance. Intensive guided listening and critical discussion; individual projects include the reviewing of concerts and recordings. prerequisite MU 115 or MU 160 or permission of instructor. *3 hours credit*

MU 303. Counterpoint in Music History**C**

A study of the art of counterpoint as practiced from its beginning in western musical history to the present, concentrating on analysis of important examples and some compositional exercises based thereon. prerequisites MU 160, 222 and 224, or permission of instructor *3 hours credit*

MU 333. Musics of the World**B**

Non-technical introduction to ethnomusicology. Survey of musical styles from around the world emphasizing how music reflects and influences society. 3 hours credit

MU 350. Special Topics in Music History**D**

A course to permit music history instructors to initiate special studies in specialized subjects. prerequisite MU 160, 252 and 255. 1 hour credit

MU 351. Independent Study in Music History**D**

An opportunity for a student to pursue a limited study under supervision. The study will usually result in a research based term paper. prerequisite MU 160, 252 and 255. 1 hour credit

MU 387. German Song**D**

A study of selected German vocal literature in its literary and musical context to acquaint singers and pianists with authors and their background from the viewpoint of intellectual history and literary movements. Corequisite LG 387. 1 hour credit

MU 383. French Song**D**

A study of selected 19th and 20th century French vocal literature in its literary and musical context, to acquaint singers and pianists with composers and poets from the viewpoint of intellectual history and literary movements. prerequisite MU 137-140 or permission of instructor. 2 hours credit

MU 408. The History and Literature of the Wind Band**C**

Survey of various influences (political, social, musical, etc.) upon the development of the Wind Band and its repertoire. Extensive listening, analysis and discussion with individual projects including bibliography and discography development. 3 hours credit

MU 420. Piano Literature**C**

Survey of representative piano literature for performance and teaching. Analysis of principal works of Bach, Haydn, Mozart, Beethoven, Chopin, Brahms, Schumann, Liszt, and the impressionistic and modern composers. Emphasis on structural and stylistic considerations. prerequisites MU 160, 221-223 and MU 126 Piano 3 hours credit

MU 424. The History of Opera**D**

Technical study of opera emphasizing its musical and dramatic development, relating it to social, cultural, and intellectual forces influencing it. prerequisite MU 122-124, and 160, or permission of instructor. 3 hours credit

MU 433. Romanticism and Music**D**

Investigation of aesthetic and philosophical concepts of Romanticism in art, literature, and philosophy; search for those conceptual characteristics in history of musical style. 3 hours credit

MU 453. The Baroque Period in Music**D**

Detailed study of styles, trends, and developments in music, 17th and 18th centuries through preclassical era. Music studied through scores, recordings, and performance. Review of important historical and theoretical developments. Prerequisite MU 160 or equivalent. 3 hours credit

MU 454. The Classical Period in Music**D**

Study of styles, trends, and developments in music in Classical period (ca. 1740-1820). Study of music of Haydn, Mozart, and other composers included. Music studied through scores, recordings, and performance. Historical and theoretical developments. Prerequisite MU 160, or equivalent. 3 hours credit

MU 455. The Romantic Period in Music**D**

Music composers, and theorists of 19th and 20th centuries, from after Beethoven through impressionists. Emphasis on developments in the music through study of scores and performance. Parallels between musical romanticism and romanticism in other arts.
prerequisite MU 252 or equivalent. 3 hours credit

MU 456. The Modern Period in Music

D

Detailed historical study of 20th century composers, musical trends, and developments. Variety of contemporary styles, experimentation, and performance practice in recent music emphasized. Recorded examples. *Prerequisite* MU 255' or equivalent. 3 hours credit

CLASS PIANO

MU 117-118. Piano Class,

A

For students with little or no piano background. Development of beginning technique through major and minor scales and arpeggios, chord study, harmonization, transposition, sight reading, pedal usage, and improvisation. *Prerequisite* Placement test. 1 hour credit each semester

MU 217. Piano Class,

A

Intermediate course in functional piano playing of major, minor, modal scales, arpeggios, harmonization using primary and secondary chords, seventh chords, and secondary dominants; transposition, improvisation and sight reading. prerequisite MU 217 or placement test. 1 hour credit

MU 218. Piano Class,

A

Continuation of development of functional piano skills through technique studies, harmonization, part-reading, transposition, improvisation and accompanying. Piano Standards barrier exam at end of course. *Prerequisite* MU 217 or placement test. 1 hour credit

MU 317. Piano Class

A

More advanced class for non-keyboard major with emphasis on technique development, sight reading, ensemble playing and repertoire such as Bach, Two-Part Invention; Chopin, *Prelude in B minor*, and *Sonatinas* by Clementi, Kuhlau. *Prerequisite* MU 218 or placement test. 1 hour credit

MU 318. Piano Class

A

More advanced class with emphasis on performance of solo piano literature, accompaniment of vocal and instrumental solos and choral accompaniments. *Prerequisite* MU 317 or placement test. 1 hour credit

MU 4 15. Piano Class for Keyboard Majors

B

Introductory course in functional piano for keyboard majors. Technical study of modal scales, harmonization using primary and secondary chords, secondary dominant chords, and seventh chords in "folk," "pop" and beginning jazz style, transposition, part-reading, ensemble playing, playing by ear, sight reading and improvisation. prerequisite MU 317-318 or placement test. 1 hour credit

MU 416. Piano Class for Keyboard Majors

B

Continuation of development of functional piano skills of harmonization, part-reading; transposition, sight reading, and improvisation; playing and improvising rags, and writing or arranging a piano duet. Piano standards barrier exam at end of course.
prerequisite MU 415. 1 hour credit

MU 417. Piano Class for the Non-Keyboard Major

A

More, advanced course in functional piano with emphasis on harmonization in "pop" and "jazz" style. Continued work on transposition, sight reading, playing by ear and part-reading. Music education majors take the piano proficiency barrier at conclusion of course.
prerequisites MU 317-318 or placement test. 1 hour credit

MU 418. Piano Improvisation for

A

Non-Keyboard Majors

Emphasis on harmonization of lead sheets with "jazz" voicings, chord substitution, creative harmonization, tri-tone substitution; improvisation of 12 bar blues and boogie.

Prerequisites MU 317-318 or placement test. *1 hour credit*

CONDUCTING**MU 131. Conducting I****A**

Focus is on beat patterns, cues and releases, fermati, tempo variation, and control. The main emphasis will be on developing the basics of chironomy. prerequisite Student must be concurrently enrolled in or have demonstrated theory competence sufficient for MU 121 and 128. *hour credit*

MU 132. Conducting II**B**

Focus on chironomy continues; special emphasis on score reading, error identification (pitch, rhythm, intonation), basic rehearsal techniques, qualities of leadership and improving expressiveness of chironomy. prerequisite MU 131. Student must be concurrently enrolled in or have demonstrated theory competence sufficient for MU 122 and 124. *hour credit*

MU 231. Conducting III**B**

Focus on skills developed in MU 131132 continues special emphasis on score reading and improved aural skills, rehearsal planning and efficient use of time, conducting leadership style, and ability to communicate effectively with an ensemble. prerequisite MU 132. Student must be concurrently enrolled in or have demonstrated theory competence sufficient for MU 221 and 223. *1 hour credit*

MU 232. Conducting IV**B**

Focus on skills developed in MU 131231 continues special emphasis on interpretation within defensible parameters, aural refinements in overcoming difficulties, diction (chorus)/articulation (instrumental), balance, and blend. prerequisite MU 231. Student must be concurrently enrolled in or have demonstrated theory competence sufficient for MU 222 and 224 *hour credit*

ME 391-392. Public School Vocal Conducting**A**

Methods and materials for starting and sustaining public school vocal ensemble programs. Stressed are score preparation, advanced conducting problems, and the refinement of rehearsal skills suitable for public school vocal ensembles. prerequisite For ME 391, MU 232 or demonstrated equivalent ability. For ME 392, ME 391 unless waived in exceptional cases. *3 hours credit each semester*

ME 393-394. Public School Instrumental Conducting**A**

Advanced conducting problems and the continuing improvement and refinement of conducting and rehearsal skills begun in MU 131-232. Emphasis on the choice, rehearsing, and programming of music for the public school instrumental ensemble stressing techniques for developing students' musical skills and knowledge in the ensemble rehearsal. prerequisites For ME 393, MU 232 or demonstrated equivalent ability. For ME 394, ME 393 unless waived in exceptional cases. *2 hours credit each semester*

MUSIC EDUCATION**ME 155. Practicum****B**

Students act as music teachers or teacher aides for approximately 40 contact hours. This requirement may be completed during the January recess, in May/June after the student has taken ME 150 or by several other alternatives approved by the Area Chair for Music Education/Music Therapy. Course includes required attendance at Freshman Music Education Seminar. S/U Grade. *0 hour credit*

ME 203. Intermediate Voice Class**A**

Applied group instruction in voice. Emphasis on development of an individual's performance ability. prerequisite MU 113 or equivalency audition with voice faculty. *1/2 hours credit*

ME 204. Advanced Voice Class**A**

Concentration on methods of developing and building singing voices. Student further develops performing ability and enlarges his/her repertoire. *Prerequisite* ME 203. *1 1/2 hours credit*

ME 210. Guitar Class**A**

Designed to enable students to accompany themselves and to lead others in the singing of simple folk and popular songs. Includes use of I, IV, \bar{V} chords in the keys of G, C, D, E; simple strumming and finger picking; and single line melodies. *1 hour credit*

ME 211. Guitar Class**A**

Continuation of ME 210. Includes I, IV, \bar{V} chords in the keys of A, F, B; secondary dominants; more advanced accompaniment patterns. *prerequisite* ME 210 or placement test. *1 hour credit*

ME 215. Music, Play, and Self**B**

A course primarily for students with little or no previous musical knowledge or skill. Examines the relationships among music, play and self, especially with regard to children. Emphasizes activity, creativity and personal expression. *3 hours credit*

ME 250. Foundations of Music Education I**B**

Emphasizes growth characteristic typical of public school students K-6 with special regard for their ability to process and respond to and with music perceptual, psychomotor, and cognitive abilities; affectivity; brain development and function; creativity. Students are expected to develop a knowledge base sufficient to demonstrate competence in working effectively with students in music classes at the elementary level of public school. *Corequisite* ME 255. *2 hours credit*

ME 251. Foundations of Music Education II**B**

Continuation of ME 250 for grades 6-12. Emphasizes the nature of adolescence, adolescent sociology and the sociology of education in relation to music education and schooling. Students are expected to develop a knowledge base in these areas sufficient to demonstrate competence in working effectively with students in music classes at the secondary level of public school. *Corequisite* ME 256. *2 hours credit*

ME 255-256. Practicum**B**

Continuation of previous practicum. *Prerequisite* ME 155, except for sophomore level internal or external transfer students into music education major. S/U grade. *0 hours credit*

ME 260. Brass Pedagogy**B**

Covers instructional materials and pedagogical methods common to beginning instruction in public schools on brass instruments. Student must be enrolled simultaneously in one or more brass instrument playing classes, or should already have completed the competency requirements for trumpet and trombone. *1 hour credit*

ME 261. Trumpet Class**B**

Group applied instruction on the trumpet designed to develop a playing competence sufficient to starting beginning level trumpet students in public schools. Required course for music education majors with an instrumental concentration but students who already possess playing competence may examine out of the requirement and substitute another brass instrument in its place. *1 hour credit*

ME 262. Trombone Class**B**

Group applied instruction on the trombone designed to develop a playing competence sufficient to starting beginning level trombone students in public schools. Required course for music education majors with an instrumental concentration but students who already possess playing competence

may examine out of the requirement and substitute another brass instrument in its place. */21 hour credit*

ME 263. French Horn**B**

Group applied instruction on the French horn designed to develop a playing competence sufficient to starting beginning level French horn students in public schools *1/2 hour credit*

ME 264. Tuba/Euphonium**B**

Group applied instruction on the tuba/euphonium designed to develop a playing competence sufficient to starting beginning level tuba/euphonium students in public schools. */21 hour credit*

ME 270. Woodwind Pedagogy**B**

Covers instructional materials and pedagogical methods common to beginning instruction in public schools on woodwind instruments. Student must be enrolled simultaneously in one or more woodwind instrument playing classes, or should already have completed the competency requirements for flute and clarinet. *1 hour credit*

ME 271. Clarinet Class**B**

Group applied instruction on the clarinet designed to develop a playing competence sufficient to starting beginning level clarinet students in public schools. Required course for music education majors with an instrumental concentration, but students who already possess playing competence may examine out of the requirement and substitute another woodwind instrument in its place. */21 hour credit*

ME 272. Flute Class**B**

Group applied instruction on the flute designed to develop a playing competence sufficient to starting beginning level flute students in public schools. Required course for music education majors with an instrumental concentration, but students who already possess playing competence may examine out of the requirement and substitute another woodwind instrument in its place. */21 hour credit*

ME 273. Oboe Class**B**

Group applied instruction on the oboe designed to develop a playing competence sufficient to starting beginning level oboe students in public schools. *1/2 hour credit*

ME 274. Bassoon Class**B**

Group applied instruction on the bassoon designed to develop a playing competence sufficient to starting beginning level bassoon students in public schools. */2 hour credit*

ME 275. Saxophone Class**B**

Group applied instruction on the saxophone designed to develop a playing competence sufficient to starting beginning level saxophone students in public schools. */2 hour credit*

ME 285. String Class**A**

Covers instructional materials and pedagogical methods common to beginning instruction in public schools in string instruments. Includes group applied instruction on the violin/viola and the cello/bass designed to develop a playing competence sufficient to starting beginning level strings in public schools. Students are assigned to instruments according to individual needs based upon any already existing levels of competence. Required course for Music Education majors with an instrumental concentration. *2 hours credit*

ME 290-292 Technology In Music**B**

Overview of technology and its application to music composition, instruction, notation, performance, theory, and music education; Fundamentals of electronic music, MIDI, and computer usage. prerequisites MU 124 or permission of instructor. *1-3 hours credit*

ME 295. Introduction to Instruments**B**

Introduction to pedagogy of woodwind, brass, string, and percussion orchestral instruments. Includes performance experience on one instrument from each group. Required for music

Education majors with Vocal/General Concentration *Prerequisite* MU 124 or equivalent musical literacy. 2 hours credit

ME 300. Foundations of Music Education HI **B**

Principles of learning and educational philosophy and psychology are studied as they pertain to typical public school music teaching needs. Students are expected to develop a knowledge base in these areas sufficient to demonstrating competence in working effectively with students in music courses at all levels of public school. *Corequisite* ME 355. 3 hours credit

ME 301. General Music in Elementary Schools **B**

Specific competencies are developed for implementing general music activities and programs in grades K-6. *Prerequisite* ME 300. *Corequisite* ME 356. 2 hours credit

ME 302. General Music in Secondary Schools **B**

Specific competencies are developed for implementing general music activities and programs in middle school (grades 5-6, 5-8), junior high school (grades 7-9), and high school. *prerequisite* ME 3-00. *Corequisite* ME 356. 2 hours credit

ME 304. Teaching Instrumental Music I **B**

Developing and implementing instrumental music activities in programs in elementary, middle, and secondary schools. Emphasis on the development of students' musical skills and knowledge through the instrumental class lesson and small ensembles. *prerequisite* MU 232, ME 250 and 251, or permission of Area Chair for Music Education/Music Therapy. *Corequisite* ME 355. 2 hours credit

ME 305. Teaching Instrumental Music II **B**

Developing and implementing instrumental music activities in programs in elementary, middle, and secondary schools. Emphasis on the processes of planning, organizing, scheduling, evaluating and communicating. *prerequisite* MU 232, ME 250 and 251, or permission of Area Chair for Music Education/Music Therapy. *Corequisite* ME 301 or 302, 356. 2 hours credit

ME 310. Guitar Class **A**

Designed to enable students to accompany themselves and to lead others in the singing of simple folk and popular songs. Includes use of transposition and capo, more advanced melodic patterns, and melody and accompaniment combinations. *Prerequisites* ME 211, or placement test. 1 hour credit

ME 311. Guitar Class **A**

Continuation of ME 310; includes pedagogy of guitar for individuals in public schools, music therapy, and private instruction. 1 hour credit

ME 321. Percussion Class **A**

Applied group instruction in playing and teaching percussion instruments commonly used in public school music programs. Required of music education majors with an instrumental concentration. 2 hours credit

ME 331. Marching Band **B**

Technical and organizational considerations for the public school marching band program. Topics include parade, field and show marching, rehearsal techniques, drill and show design, festivals and competitions, auxiliary and support units. Individual and class projects include fieldbased observation. *prerequisite* Junior or senior music major or permission of instructor. 2 hours credit

ME 335-356. Practicum **B**

Continuation of previous practicum. S/U grade *Prerequisite* ME 256. 0 hours credit

ME 400. Professional Semester**B**

Student teaching in selected public schools in western New York State under the supervision of college music education faculty and cooperating teachers. With music education faculty advisement, students typically seek placements that provide experience and credentials in the musical specialties, and at the public school levels, in which they expect to seek professional positions. prerequisites Relevant methods courses, seniorstanding, and successful completion of all competencies stated for the student's concentration. *4 hours credit*

ME 450-451. Directed Study in Music Education**A**

Projects related to music education but not otherwise a part of regular course offerings. Requires a formal learning contract approved by a faculty sponsor and the Area Chair for Music Education.- 1 *3 hours credit*

ME 470-479. Special Topics in Music Education**D**

Studies of areas supplementary, not replacing, regular course offerings, Topics, credit hours, prerequisites and instruction determined by Music Education Area. -*3 hours credit*

MUSIC THERAPY**MY 115. Introduction to Music Therapy****B**

A basic orientation and general introduction to music therapy as a creative arts discipline. Lectures, classroom discussion, films and classroom demonstrations are methods used to introduce students to the target populations/disabilities. Required of all music therapy majors; open to all majors. *2 hours credit*

MY 240. Music for the Child with Disabilities**B**

A basic introduction to the child with disabilities, state and federal guidelines applicable to music in special education and how music can be used as a teaching method. Lecture, discussion, class demonstration. *3 credit hours*

MY 270. Social Instruments**B**

Group applied instruction on a variety of social/recreational non-traditional instruments (e.g. autoharp, dulcimer, recorder, ukulele, percussion instruments, tone bells). Designed to develop a playing competence sufficient to accompany general music classes/music therapy clinical sessions. *2 hours credit*

MY 300. Orientation to Clinical Practicum**B**

An introduction to the clinical experience as a beginning process toward becoming a music therapist. Designed to develop skills in observation, behavioral objectives and therapeutic techniques. A look at the professional aspect of music therapy, i.e., Code of Ethics, Standards of Clinical Practice, etc. Assigned observations, development of music skills and readings are part of class requirements. *Prerequisite* MY 115. *1 hour credit*

MY 301. Seminar in Music Therapy**A**

Designed to support the clinical practicum experience. Fall semester seminars correspond to clinical population; spring semester seminars involve psychological approaches to music therapy. Music therapy majors are required to take this course, each semester after completing MY 115 and 300. *1 hour credit*

MY 302. Practicum in Music Therapy**A**

Designed to provide structured experience in a clinical setting under the supervision of a music therapist. Students work two hours per week, on a two-semester basis, with children, adolescents, adults, and elderly in area clinical facilities. Written monthly and semester reports are part of the clinical requirements. Music therapy majors are required to take this course each semester in conjunction with MY 301. *0 hours credit*

MY 345. Foundations of Music Therapy**B**

Introduction to music therapy literature and research. Historical and philosophical approach to how music has influenced human behavior. Introduces students to problems of writing in psychological

style as well as how to read research critically and analytically and how to write articulately. Research abstracts, and a major historical paper are part of the class requirements. prerequisite Junior standing or permission of instructor 3 hours credit

MY 401. Principles of Music Therapy**B**

A synthesis of all previous classroom and clinical experiences in the form of the senior portfolio. Students develop a major work designed to produce administrative/management skills required for entry level music therapists. Development in scheduling, budgets, treatment programs, assessment, evaluation, etc. are major areas of concern. prerequisite Senior music therapy majors only. 3 hours credit

MY 414. Psychology of Music**B**

Science of psychology related to fundamentals of musical talent. The musical mind, sensory capacities, individual differences and psychology of listening. An introduction to musical acoustics. Prerequisite Senior standing. 3 hours credit

MY 415. Methods and Materials in Music Therapy**B**

Available materials for music therapy application in all target populations. A look at different methods used in music therapy practice, i.e., Orff Schulwerk, Nordoff-Robbins, Improvisation, etc. Students prepare their own resource materials as part of class requirements. Prerequisite MY 115. 2 hours credit

MY 422. Psychological Research in Music**B**

Students propose, carry out, and write an experimental study in the area of music therapy or music education. Class and individual projects are required. 3 hours credit

MY 450. Internship in Music Therapy**A**

Six-month clinical internship in NAMT approved facility. All course work must be completed before internship begins. 0 hours credit

SOUND RECORDING TECHNOLOGY**ST 200-201. Recording Practicum****B**

Applied instruction in basic audio techniques. Includes studio instruction in the use of microphones, loudspeakers, tape recorders. Taken concurrently with ST 250-251. Open to majors only. 2 hours credit each semester

ST 250-251. Recording Techniques**B**

A two-semester course in recording, including audio measurements, use of loudspeakers, microphones, tape recorders, and mixing consoles. Emphasis on stereophony, live recording, and the development of high standards of studio craft. Open to majors only. 2 hours credit each semester

ST 300-301. Recording Practicum**B**

Applied instruction in multi-track recording, sound reinforcement, and audio systems analysis techniques. Includes in-depth study of mixing consoles, tape recorders, and signal processors. Students will record assigned projects and assist seniors in production projects. Taken concurrently with ST 350-351. Open to majors only. prerequisite ST 200 level courses. 2 hours credit each semester

ST 350-35 1. The Technology and Practices of the Recording Industry**B**

A two-semester course in multi-track recording technology, including basic recording, overdubbing, remix and album production. Open to majors only. Prerequisite ST 200 level courses. 3 hours credit each semester

ST 450-451. Senior Seminar/Project**B**

Each student will prepare a professional quality recording production and a research paper. In addition, the seminar will address areas of professional concern, including career development and survival skills, current studio developments, and elements of style in recording. *Open to majors only. prerequisite* ST 300 level courses. 2 hours credit each semester

ST 460461. Independent Study**A**

Studies in studio maintenance, booking, traffic management, and research are available on a limited basis. Maximum of 6 hours of MU, ME, or ST independent study. *Open to majors only. prerequisite* By permission of instructor. 2 hours credit

ST 480. Internship**A**

'A 15-week, full-time work position in a facility appropriate for the individual student's goals. Duties are specified by college and sponsoring firm. *Open to majors only. Prerequisite* By permission of instructor. 1 to 15 hours credit

APPLIED MUSIC AREAS**MU 019-020. Music Ensembles****B**

All music students participate in the college music ensembles (described on pages 21-22), the required number of participations varying among the several music curricula. Participation in any ensemble is open to students in other departments of the college by audition and consent of the conductor. 0 hours credit

MU 100. Recital-Seminar**A**

Required of all freshman music majors enrolled in private applied music instruction. Students perform or critique performance of colleagues during one recital-seminar each week. Recital schedule rotated one week, studio; next week, area; following, school recital. *Corequisite* Enrollment in private applied music instruction (MU 105-106, 125-126). 0 hours credit

MU 105-106. Applied Music Major*A**

Weekly half-hour private applied instruction for music majors in Bachelor of Arts, Bachelor of Science and Bachelor of Music in Composition degree programs. See MU 125-126 for further information about the requirements of specific studios. 2 hours credit each semester

MU 109. Harp Class, Elementary**A**

Introductory course for beginners on the harp. Hand position, finger exercises, and tone production. 1 hour credit

MU 110. Harp Class,**B**

Continuing development of tone and technique elementary harp repertoire. *Prerequisite* MU 109. 1 hour credit

MU 113. Voice Class**A**

One-semester course in basic vocal skills. Primary objective is to develop vocal technique for demonstration as instrumental or vocal conductor, and for choral participation. 1 hour credit

MU 120. Concert Attendance**A**

Attendance at a minimum of eight approved concerts (including faculty solo and ensemble recitals, Fredonia Chamber Players, visiting artists, and major student ensembles) each semester. 0 hours credit

MU 125-126. Applied Music Major*A**

Weekly hour private applied instruction for music majors in Bachelor of Music in Performance and Bachelor of Music in Music Education degree programs.

Bassoon: Fundamentals in position, embouchure, breath control, tone, phrasing, technique, articulation. Tenor clef. All major and minor scale patterns. Representative studies: Weissenborn, *Practical Method, Vol. 11*; Vaulet, *20 Studies*, Milde, *Studies in Scales and Chords*.

Representative Soros; Galliard, *Sonatas*; Vivaldi, *Sonatas*; Besozzi, *Sonata*; Gliere, *Impromptu*; Phillips, *Concertpiece*; Stevens, *Three Pieces*. 2 hours credit each semester

Cello: Study and performance of music of the difficulty of Golterman *Concerto IV*; Bach, *Suites I and II*; Vivaldi, *Six Sonatas*; Gruetzmacher and Deak. Fundamentals of tone-production, bowing, fingering, and shifting. 2 hours credit each semester

*Special regulations concerning applied music study:

1. Individual instruction in applied music at all levels is limited to degree candidates in music curricula.
2. All music curricula require a minimum of two semesters of private instruction in the student's major area of performance as part of the Core Curriculum. Certain degree programs require additional applied study beyond the requirements of the Core Curriculum as follows: The Mus. B. in Music Education and the Mus. B. in Composition curricula require an additional four semesters for a total minimum of six semesters of private instruction in the student's major area of performance; the Mus. B. in Performance and the B.A. in Applied Music curricula require eight total semesters of study in the major performing area; the B.A. in Music Theory requires six total semesters of study in the major performing area; the B.S. in Music Therapy degree requires four total semesters of study on the major performance medium.
3. The applied area faculty shall determine the suitability of a student's continued study if that student received D grades in the applied area in any two semesters. Students receiving a grade of E in the applied area during any semester may not continue private applied instruction the following semester and may not be readmitted to any applied area without an audition.
4. Any student who withdraws from applied music instruction must audition before readmission to applied study.
5. Every student will be required to be in a large organization, utilizing the student's principal applied major, every semester that he/she receives applied instruction in that major applied area.

Clarinet: Emphasis on basic fundamentals of clarinet technique. Introduction to techniques of single reed adjustment. Studies selected from Klose *Method for Clarinet, Part 11*; Rose, *40 Studies*; Rose, *32 Etudes*; Polatcheck, *12 Studies*; and Kreepoch, *Daily Studies, Bk. 1*. Representative solos are: Aubert, *Aria and Presto*; Handel, *Concerto in G minor*; Shostakovich, *Dances Fantastiques*; Tartini, *Concertino*; Arne, *Sonata in Bflat*; contemporary French recital pieces. 2 hours credit each semester

Classical Guitar: First year focuses primarily upon proper seating and hand positions. Technical material includes studies of D. Aguado and F. Sor supplemented by development of tone production through Shearer scale system and right hand studies of M. Giuliani. 2 hours credit each semester

Double Bass: Development of intonation accuracy; basic shifting; techniques of varied sound production, and introduction to thumb position. Scales and etudes in all keys. Appropriate solos, studies, and orchestral excerpts such as the Beethoven scherzo from *Symphony No. 5*, recitative from the Beethoven *9th Symphony*, and the solo from Mahler's *Symphony No. 1*. 2 hours credit each semester

Euphonium: Fundamentals of embouchure, tone, breathing, phrasing, major scales and arpeggios, lip slurs, articulation, bass and treble clef. Arban's *Complete Method for Trombone*; Voxman, *Selected Studies*; Rochut, *Melodious Etudes Book 1*; selected solos of Marcello, Galliard, Guillmant, Grafe, and Mozart. 2 hours credit each semester

Flute: Fundamentals of embouchure, intonation control, vibrate, breath control, articulation, and fingering technic. Scales, arpeggios, and exercises such as the Berbiguie *Eighteen Etudes*; Cavally, *Melodious and Progressive Etudes*. Study of style and expression in solo literature at level of J.S. Bach, Handel, Talemann sonatas. 2 hours credit each semester

French Horn: Study of embouchure, breathing, hand position, and articulations. Major, minor, and chromatic scales; simple transpositions; basic core of orchestral excerpts; etude studies from such books as Thevet, *60 Etudes*; Kopprasch, *Book One*; Miersch and Maxime-Alphonse, *Book 1 or 2*; solos on the level of Mozart *Concerto No. 1*, Gliere *Intermezzo* and Glazanov *Reveries*. Bass clef reading. 2 hours credit each semester

Harp: Music of difficulty of Sizi-Hasselmans, *Etudes Vol. 11*; Bochsa-Martenot, *Etudes Vol. 11, Op. 34*; Naderman, *Sept Sonates Progressives*; Pierne, *Impromptu Caprice*; Corelli-Salzedo, *Giga*; Beethoven, *Variations*; Spanish Masters. 2 hours credit each semester

Oboe: Tone production, articulation, reed making, and major and minor scales. Such studies as Sellner, *Progressive Studies*; Barrat, *40 Melodic Studies*, Such solos as Barlow, *Winter's Passed*; Handel, *Concerto No. 8 in B flat major*. 2 hours credit each semester

Organ: Fundamental techniques of manual and pedal playing. Elementary trios and chorales for coordination and development of contrapuntal approach. Music studies on the level of Bach, *Orgelbuchlein, Prelude and Fugue in E minor ("Cathedral")*; Peeters, *Aria*; Muffat, *Toccatas*; Buxtehude, *Prelude and Fugue in F major*. Note: By end of freshman year all organ majors must demonstrate proficiency at the piano (all major and minor scales and arpeggios in root position). 2 hours credit each semester

Percussion: Review of fundamentals and the 26 standard rudiments. Stick control, hand and wrist position, various types of attack. Introduction to timpani, wrist and tuning techniques, ear training, and technical studies, Gardner, Goodman, and Hinger Methods. Introduction to xylophone, bells, and other mallet instruments. Bona, *Rhythmical Articulation*, Gardner and Goldenberg, *Methods*. Percussion ensemble. Introduction to accessories; tambourine, triangle, etc. Price, *Method*. 2 hours credit each semester

***Piano:** Major and minor scales and arpeggios; sight-reading, Bach, 2- and 3-part *Inventions*; Scarlatti, *Sonatas*; Haydn, *D major, E minor Sonatas*; Mozart, *K. 280, K. 332*; Beethoven, *Op. 2 No. 1, Op. 14 No. 1-2*; Chopin, *Waltzes, Preludes*; Mendelssohn, *S.W.W.*; Schubert, *Impromptus*; Debussy, *Arabesque, Preludes*; Shostakovich, *Preludes*; Kabalevsky, *Sonatinas*; Tcherepnin, *Bagatelles*; Copland, *Cat and Mouse*. 2 hours credit each semester

Saxophone: Fundamentals of saxophone playing. Emphasis on embouchure, breathing, intonation, articulation, vibrato, and problems in finger technique. Scale studies. Selected studies by Voxman, *Selected Studies*; Ferling, *48 Etudes*; Klose, *25 Daily Studies*; Racher, *24 Intermezzi*. Representative literature includes: Lane, *Suite*; Eccles, *Sonata*; Handel, *Sonata No. 3*; Lantier, *Sicilienne*; Tuthill, *Sonata*; Tartini, *Grave*; Heiden, *Sonata*; Jacobi, *Sonata*. 2 hours credit each semester

*In addition to the one-hour lesson per week, piano students are required to have a minimum of four (two in organ) and a maximum of seven semesters of satisfactory participation in the ensemble listed in the course offerings as "Piano Ensemble."

Trombone: Basic techniques of breath control, slurs, scales, legato, double and triple articulations, tone, intonation. Establishment and study of daily practice routine to develop tone and flexibility. Material by such composers as Bordogni-Rochut, Arban, Miller, Lafosse, Blume; solos by Galliard, Porret, Busser, Barat, Tuthill, Beach. 2 hours credit each semester

Trumpet: Study of embouchure, tone, breathing, phrasing, scales to five sharps and five flats, double and triple tonguing, and lip slurring. Introduction to C and A transposition and orchestral articulation. Use of technic books such as those by Clarke, Schlossberg, and Arban. Etudes such as *Practical Studies* by Goldman and *Orchestra Etudes* by Brandt. Solos selected from standard trumpet literature. 2 hours credit each semester

Tuba: Study of embouchure, tone, breathing, scales up to and including five sharps and five flats, rapid single tongue, double and triple tonguing, lip slurs, octave transposition, and study of tenor clef. Use of technic books: Tyrell, *Advanced Studies for BB flat Bass*; Arban, *Complete Method*

for Trombone; Colin, Advanced Lip Flexibilities; Remington, Warm-Up Routine; Fink, Introducing the Tenor Clef; and Blume, 36 Studies for Trombone. 2 hours credit each semester

Viola: Study of basic bow, left hand and interpretive technique using etudes by Wohlfahrt, Kaye, Mazas' and Kreutzer as well as concerti and sonatas by Marcello, Telemann, and Vivaldi. 2 hours credit each semester

Violin: Study of basic bow, left hand and interpretive technique using etudes by Kayser, Holmann, Mazas, Dont and Kreutzer as well as concerti and sonatas by Bach, Handel, and Vivaldi. 2 hours credit each semester

Voice: Fundamentals of voice production. Language study includes elements and techniques of singing in English and Italian. All freshmen who take studio voice lessons (private vocal instruction) are required to take Lyric Theatre Workshop Practicum for one semester their freshman year. Corequisite: MU 137-138, 139-140. 2 hours credit each semester

MU 137-140. Diction for Singers

B

A two-semester sequence intended to give singers a basic understanding of the International Phonetic Alphabet (IPA) and a thorough application of IPA symbols to the sounds of Italian, German, French, Latin and English dictions. The course is designed for voice students in all music curricula, and may be taken by students from other majors as well. *1 hour credit each semester*

MU 200. Recital Seminar

A

Required of all sophomore music majors enrolled in private applied music instruction. Students perform or critique the performance of colleagues during one recital-seminar each week. Recital schedule rotated one week, studio; the next week, area; and the following week, school recitals. *Corequisite* Enrollment in private applied music instruction (MU 205-206, 225-226, 235-236, 245-246). *0 hours credit*

MU 205-206. Applied Music Major

A

Weekly half-hour private applied music instruction for music majors in Bachelor of Arts, Bachelor of Science and Bachelor of Music in Composition degree programs. See MU 225-226 for further information about the requirements of specific studios *Prerequisite* MU 106. *2 hours credit each semester*

MU 209. Harp Class, Advanced

D

Advanced training in technique scales, arpeggios, harmonies, pedal studies, chords, octaves, glissandi, and finger exercises in velocity *Prerequisite* MU 110. *1 hour credit*

MU 225-226. Applied Music Major

A

Prerequisite MU 126.

Bassoon: Tone, advanced phrasing, and technique. Advanced reed making. All major and minor arpeggios. Vibrato. Representative studies: Gambaro 18 Etudes; Milde, Concert Studies, Vol. 1; Giamipieri, 16 Daily Studies. Representative solo literature: Telemann, Sonata; Pieme, Concertpiece; Hindemith, Sonata. 2 hours credit each semester

Cello: Music of the difficulty of Corelli, Sonata in D minor; Sammartini, Sonata in G; Eccles, Sonata in G; Faure, Apres un Reve and Elegie; Saint Saens, Allegro Appassionato. Etudes by Gruetzmacher, Deak and Duport. Continuing development of tone and techniques in thumb positions. 2 hours credit each semester

Clarinet: Continued study of fundamental techniques. Scale and arpeggio studies from Baermann's Method, Bk. 111; studies selected from Rose, 32 Studies; Thurston, Passage Studies, Bk. 11; Cavallini, 30 Caprices. Representative solos: Weber, Concertos; Hindemith, Sonata. 2 hours credit each semester

Classical Guitar: Second year of study expands technical ability through advanced studies of F. Sor, L. Brouwer, and H. Villa-Lobos and concentrated work in the Minella scale system of 3rds,

6ths, and octaves. Contrapuntal aspects of instrument explored through works by J.S. Bach and S.L. Weiss. *2 hours credit each semester*

Double Bass: Thumb position, bow articulation, and extremes in dynamics and color emphasized. Scales, arpeggios, and etudes in all keys. Preparation of minimum of three pieces from solo literature required. Music on the level of Baroque sonatas by Handel, Eccles, and Pergolesi; classical concertos by Capuzzi, Pichl, and Dittersdorf; and the solo excerpts from Verdi's *Stello* and *Rigoletto*. *2 hours credit each semester*

Euphanium: Minor scales and arpeggios, chromatic scales, tenor clef, development of 4th value technique. Continued development of tone production and refinement of musicianship. Materials include: Rochut, *Melodious Etudes Book 11*; Clarke, *Technical Studies*; Bach, *Cello Suites*. Solos include works of David, Davison, Telemann and Hartley. *2 hours credit each semester*

Flute: Further study of scale and arpeggio patterns, exercises in chromatics, trills and tremolos. Andersen, *Etudes, Op. 15, 33*; Altes, *Method*. Solo literature at the level of the Quantz concertos: Mozart, *Concerto No. 1* and *Concerto No. 2*; Telemann, *Suite A minor*; Caplet, *Reverie et Petite Valse*. *2 hours credit each semester*

French Horn: Further development of performance techniques: work on range, tone phrasing, dynamics, and hand stopping; all scales in two octaves. Study of solo repertoire such as Mozart *Concerto No. 3*; Hindemith, *Sonata*; and Chabrier, *Larghetto*. Intermediate etudes from such books as Thevet, *65 Etudes*; Kopprasch, *Books 1 and 2*; Maxime-Alphonse, *Books 1 and 2*. Additional transpositions and intermediate orchestral excerpts. *2 hours credit each semester*

Harp: Music of the difficulty of Bochsa Martenot *Etudes Vol. II*; Schmidt, *Etudes*; Pozzoli, *Etudes*; Handel, *Tema con Variationi*; Dussek, *Sonata*; Virgilio Mortari, *Sonatina Prodigio*; Salzedo, transcriptions of old music; Britten, *A Ceremony of Carols*; Grandjany, *Rapsodie*; Tournier, *Etude de Concert*. *2 hours credit each semester*

Oboe: Vibrato, reed making, and all scales and arpeggios. Studies such as Barret, *5 Grand Studies*; Ferling, *48 Studies*. Solos such as Handel, *Oboe Sonatas*; Schumann, *Romances*. *2 hours credit each semester*

Organ: Continued study of works of Bach and earlier composers, adding easier works of 19th and 20th centuries. More complex registration techniques covered *2 hours credit each semester*

Percussion: Extensive concentration on accessories. Advanced snare drum studies such as Wilcoxon, *All-American Drummer and Swing Solos*; Goldenberg, *Method*; Albright, *Snare Drum Studies*. Advanced timpani technique, quick tuning, cross hammering, excerpts from orchestral and band literature. Introduction to other rudimental styles of drumming, such as Scotch snare drumming. Percussion Ensemble. *2 hours credit each semester*

Piano: Scales: 3rds, 6ths, 10ths; arpeggios; inversions; sight-reading. Bach, *Preludes and Fugues*; W.T.C., *French Suites*; Mozart, *C major Sonata K. 330*; Beethoven, *Op. 10 No. 3, Op. 26*; Chopin, *Impromptus, Nocturnes, Etudes Op. 10 No. 3, Op. 25 No. 1, Polonaises*; Brahms, *Intermezzis, Capriccios*; Schumann, *Op. 2, 12, 15*; Debussy, *Pour le Piano*; Roy Harris, *Toccata*; Bartok, *Allegro Barbaro*; Rachmaninoff, *Preludes*. *2 hours credit each semester*

Saxophone. Further work on fundamentals. Scale, chord, and interval studies. Harmonic studies. Selected studies by Ferling, *48 Etudes*; Capelle, *20 Grande Etudes*; Rascher, *24 Intermezzis*; Karg-Elert, *25 Caprices and Sonata*; Gates, *Odd-Meter Studies*. Representative literature includes: Jacobi, *Sonata*; Heiden, *Sonata*; Bozza, *Pulcinella*; Handel, *Sonata No. 13*; Bonneau, *Suite*; Debussy, *Rapsodie*; Glazounov, *Concerto in E flat*; Tcherepnin, *Sonatine Sportive*. *2 hours credit each semester*

Trombone: Further development of technique, legato, scales, phrasing, range. Use of tenor clef. Participation in Trombone Ensemble. Material by such composers as Bordogni-Rochut, Vobaron, Gillis, Lafosse, Kopprasch, Couillaud; solos by Galliard, David, Dubois, Marcello, Rousseau. *2 hours credit each semester*

Trumpet: Chromatic scales, all major and minor scales, advanced double and triple tonguing. Additional transpositions and work from the books of Clarke, Concone, Brandt and Boehme. Additional selected solos for student recitals. Introduction to orchestral repertoire. 2 hours credit each semester

Tuba: All major and minor scales and . arpeggios, continued study of clefs, selected solos from the literature of trombone, trumpet, bassoon, or tuba. Texts include Kopprasch *60 Studies*; Cimera, *73 Advanced Studies*. 2 hours credit each semester

Viola: Study of more advanced bow, left hand and interpretive technique using etudes by Kreutzer, Mazas and Dont as well as concerti and sonatas by C.P.E. Bach, J.S. Bach, Handel, and Stamitz. 2 hours credit each semester

Violin: Study of more advanced bow, left hand and interpretive technique using etudes by Dont, Kreutzer and Mazas as well as concerti and sonatas by Bach, Haydn and Mozart. 2 hours credit each semester

**Voice:* Continuation of fundamentals of vocal technique. Emphasis upon German vocal repertoire. Continued study of contemporary vocal literature as well as introduction of operatic and oratorio repertoire. 2 hours credit each semester

*Regardless of curriculum, voice students must satisfactorily meet the requirements of a Sophomore Screening in order to continue instruction.

MU 235-236. Musical Theatre Voice

A

Continuation of fundamentals of vocal technique. Emphasis upon German literature and literature from the Broadway stage. Continued study of contemporary vocal literature as well as introduction to operatic and oratorio repertoire. prerequisite MU 126, and approval for study in the Music Track of the Bachelor of Fine Arts in Musical Theatre degree program; 3 hours credit each semester

MU 245-246. Performance Major

A

Prerequisite .MU 126, and approval for study in the Bachelor of Music in Performance degree program.

Bassoon: Vibrato. Advanced reed making, phrasing, and technique. Major, minor, and diminished arpeggios. Scales in thirds. Representative studies: Milde *Concert Studies, Vol. 11*; Pivonka, *Rhythmical Etudes*; Oubradous, *Preludes-Etudes*. Representative solo literature: Mozart, *Concert K. 191*; Vivaldi, *Concerto in G minor, F. VIH, No. 11*; Stamitz, *Concerto*; Bach, *Suites*; Bozza, *Burlesque*; Tansman, *Sonatine*. 4 hours credit each semester

Cello: Study of bow, left hand technique, and different styles of interpretation using etudes by Magg, Schroeder, and Dupart. Concertos and sonatas by Beethoven, Vivaldi, Haydn, and Boccherini, as well as one of the first three suites of Bach. 4 hours credit each semester

Clarinet: Scale and arpeggio studies from Baermann *Method, Bk. 111*. Selected studies from Cavallini, *30 Caprices*; Thurston, *Passage Studies, Bks. H-III*; Baermann, *Method, Bk. 1V*; Langenus, *Method, Part 111*; introduction to orchestral studies. Representative solos: Hindemith, *Sonata*; Weber, *Grand Duo Concertant*; Schumann, *Fantasy Pieces*. 4 hours credit each semester

Classical Guitar: Continuation of scales fingered by A. Shearer and A. Minella, but expanding more on rhythmic patterns, more complex right-hand patterns, and development of speed and articulation. Repertoire: etudes of H. Villa-Lobos, Numbers 1, 2, 5, 7,- 8, and 11; J.S. Bach *Suite*; Scarlatti, *Sonatas*; and work by such composers as Brouwer, Tarraga, and Sor. 4 hours credit each semester

Double Bass: Similar to MU 225-226, but minimum of four pieces from the solo literature and orchestral excerpts required. 4 hours credit each semester

Euphonium: Continued development of virtuosic skills and musicianship, work on extending upper and extreme lower register, study of euphonium in orchestral literature. Materials include: Rochet, *Melodious Etudes, Vol. 2*; Clarke, *Technical Studies*; Bach, *Cello Suites*. Solos by David, Davison, Jacobs, Hartley, and Teleman. 4 hours credit each semester

Flute: Further study of major and minor scale and arpeggio patterns; development of high register facility; further study of articulation and finger techniques. Etudes such as Cavallo, *Melodious and Progressive Etudes, Book 11*; Andersen, *Etudes, Op. 33*. Solo literature at the level of Hindemith, *Sonata*; Hue, *Fantasie*; Burton, *Sonatina*; Hanson, *Serenade*. Study of orchestral and chamber music excerpts. 4 hours credit each semester

French Horn: Emphasis on building strong and musical performance technique. Work on lip trills and double and triple tonguing; all scales in three octaves; etudes on level of Gallay, *Opus 57*; Kopprasch, *Book 2*; Mueller, *34 Studies*; Belloli, *12 Etudes*; and Maxime-Alphonse, *Books 3 or 4*. Solos such as Mozart, *Concerto No. 2*; Strauss, *Concerto No. 1*; Dukas, *Villanelle*; and Brahms, *Horn Trio*; orchestral excerpts and chamber music; all transpositions. 4 hours credit each semester

Harp: Technique: scales, arpeggios, tone production, pedal technique. Studies: Bochsá-Martenot, *Etudes Vol. 11*; Schmidt, *Etudes*; Salzedo, *Conditioning Exercises, Daily Dozen Exercises*. Repertoire: Dussek, *Sonata*; Salzedo, transcription of old music; Tournier, *Etude de Concert*; Handel, *Concerto in B flat*. 4 hours credit each semester

Oboe: Vibrato, reed making, all scales and arpeggios, and study on English horn. Studies such as Ferling, *48 Etudes*; Rothwell, *Orchestral Passages*. Solos such as Jacob, *Sonatina*; Loelliet, *Sonata in C major*; Piston, *Suite for Oboe*; Telemann, *Concerto in D minor*. 4 hours credit each semester

Organ: Continuation of applicable technical studies. Bach, *Trio Sonata, Preludes and Fugues in G minor, A major*; Franck, *Prelude, Fugue, and Variation*; Hindemith, *Sonatas 2 and 3*; Langlais, *Paraphrase on the to Deum*; Brahms, *Eleven Chorale Preludes*. 4 hours credit each semester

Percussion: Snare drum: advanced study. Timpani: advanced technical studies, pre-classic, classic, and romantic excerpts; three- and four-drum studies and solos, rapid tuning. Mallet: continuation of reading, technique, scales, etc., four-mallet studies and repertoire. Afro-Latin instruments: basic skills. Percussion, Ensemble. Studies: Albright, Goldenberg, Edcath Collection, Firth Etudes. Solos: such as Colgrass, *Advanced Snare Drum Solos*; Abel, *Solos*; Brown, *Dahoon*; timpani solos of Huston, Bergarno; mallet solos of Ulrich, Peters. 4 hours credit each semester

Piano: All scales and arpeggios with all inversions. Bach, *Preludes and Fugues*; W.T.C. *Suites*; Mozart, Beethoven, Schubert sonatas, such as Schubert, *Opus 120, Opus 164*. Romantic, impressionistic, and contemporary works such as Brahms, *Intermezzi, Rhapsodies*; Chopin, *Ballades*; Ravel, *Sonatine*; Prokofieff, *3rd Sonata*. 4 hours credit each semester

Saxophone: Scales, chord, and interval studies. Harmonic studies. Extended range to g3. Transposition studies. Selected studies from Karg-Elert, *25 Caprices*; Bozza, *12 Etudes-Caprices*; Ameller, *Expressive Etudes*. Representative literature includes Creston, *Sonata*; Russell, *Particles*; Galzounov, *Concerto in E flat*. 4 hours credit each semester

Trombone: Advanced technique and musicality. Further study of clefs, orchestral excerpts, and sight-reading. Participation in Trombone Ensemble. Material by such composers as Bordogni-Rochut, Blazevich, Lafosse, Cornette, Kopprasch-Fote, Couillaud; solos by Handel, Mozart, Morel, Watson, Stojowski, Hartley, and others. 4 hours credit each semester

Trumpet: Additional scale and arpeggio studies. Development of high register. Introduction to orchestral repertoire and advanced transpositions and etudes such as those of Charlier, Chavanne, and Sachse. Beginning work on C trumpet. Selected solos for student recitals. 4 hours credit each semester

Tuba: Continued advanced development of technical facility, scales, and arpeggi, development of upper and pedal register. Orchestral excerpts of Wagner, Tchaikovsky, Strauss, Berlioz, and continued study of clefs. Beginning work on CC tuba selected from Rochumelodious Etudes Book 11; Kopprasch, 60 Studies; Cimeria, 73 Advanced Studies. Orchestral excerpts from the Stoneberg series for trombone and tuba. 4 hours credit each semester

Viola: Study of more advanced bow, left hand and interpretive technique using etudes by Kreutzer, Mazas, and Fiorillo, works by Bach, Bloch, Hindemith, and Hoffmeister, as well as the Solo Suites of Bach. 4 hours credit each semester

Violin: Study of more advanced bow and left hand technique and methods of interpretation using etudes by Fiorillo, Kreutzer and Mazas, concerti and sonatas by Beethoven, Bruch and MSzart as well as the Solo Sonatas of Bach. 4 hours credit each semester

**Voice*: More advanced study of vocal technique. Emphasis upon German vocal repertoire. Continued study of contemporary vocal literature as well as introduction of operatic and oratorio repertoire. 4 hours credit each semester

*Regardless of curriculum, voice students must satisfactorily meet the requirements of a Sophomore Screening in order to continue instruction.

MU 300. Recital-Seminar

A

Required of all junior-level music majors enrolled in private applied music instruction. Students perform or critique performance of colleagues during one recital-seminar each week. Recital schedule rotated one week studio, the next week area, and following week school recitals. *Corequisite* Enrollment in private applied music instruction (MU 305-306, 325-326, 335-336, 345-346). 0 hours credit

***MU 305-306. Applied Music Major**

A

Weekly half-hour private applied instruction for music majors in Bachelor of Arts and Bachelor of Music in Composition degree programs. See MU 325-326 for further information about the requirements of specific studios. *Prerequisite* MU 206. 2 hours credit each semester

MU 315-316. Secondary Applied Study

A

Weekly one-half hour private instruction on an instrument other than a student's principal applied instrument, and for which the student has already had the appropriate secondary applied group instruction in a playing class. *prerequisite* Permission of School of Music office. 1 hour credit

MU 325-326. Applied Music Major

A

Prerequisite MU 226.

Bassoon: Advanced phrasing and technique. Chromatic and whole-tone scales, major and minor third arpeggios. Representative studies: Milde Concert Studies, Vol. H; Pivonka, Rhythmical Etudes; Jancourt, 26 Etudes; Stadio, Orchestral Studies. Representative literature: Vivaldi, Concerto F. VIII, No. 11; Stamitz, Concerto; Cascarino, Sonata; Osborne, Rhapsody. 2 hours credit each semester

Cello: Music of difficulty of Goltermann, Concerto 1; Bach, Suite 111, Sonatas L H and III for viola da gamba; Beethoven, Sonatas I and II, Magic Flute Variations; Bruch, Nidrei; Schumann, Fantasiestucke; Brahms, Sonata in E. Etudes by Duport and Servais. 2 hours credit each semester

Clarinet: Selected studies from Baermann, Method, Bk. IV; Thurston, Passage Studies, Bk. III; Langinus, Method, Part III. Orchestral studies. Representative solos; Schumann, Fantasy Pieces; Martini, Sonatina; Mozart, Concerto. 2 hours credit each semester

Classical Guitar: Materials varied to suit individual progress. However, important works by Tarraga, Tansman, and Ponce studied. 2 hours credit each semester

Double Bass: More advanced bowing and fingering techniques. Music of the difficulty of the Dragonetti *Concerto* and shorter works by Bottesini and Koussevitzky. Study of a solo employing advanced contemporary techniques. Orchestra excerpts include Mozart's *Symphony No. 40* and Prokofieff's *Lt. Kije Suite*. 2 hours credit each semester

Euphonium: Continued advanced development of musicianship, development of sight-reading. Materials by Blazeovich, Charlier. Orchestral excerpts. Solos by Hindemith, White, Wilder, and Vivaldi. 2 hours credit each semester

Flute: Studies such as Altes, *Method*; Taffanel-Gaubert, *Etudes*; Moyse studies; advanced articulation patterns. Solo literature of difficulty of Hindemith's *Sonata*; Ganne, *Andante et Scherzo*; Hue, *Fantaste*; Burton, *Sonatina*. Study of orchestral and chamber music excerpts. 2 hours credit each semester

French Horn: Broadening of technical ability; work begun on lip trills and double and triple tonguing. Etudes on level of Maxime-Alphonse's *Book 3 or 4*; Gallay, *Opus 57*; and Mueller, *34 Studies*. Intermediate orchestral repertoire; all transpositions; solo material such as Saint-Saens, *Morcau de Concert*; Mozart, *Concerto No. 2*; and Beethoven, *Sonata*. 2 hours credit each semester

Harp: Music of difficulty of Schmidt, *Etudes*; Pozzoli, *Etudes*; orchestral excerpts and cadenzas; Handel, *Concerto in B flat*; Mozart, *Variations*; Salzedo, *The Harmonious Blacksmith*. 2 hours credit each semester

Oboe: Reed making, all scales with varied articulation scales in thirds and study of English horn. Studies such as Ferling, *48 Studies*; Rothwell, *Orchestral Passages*. Solos such as Cimarosa, *Concerto for Oboe*; Hindemith, *Sonata for Oboe*. 2 hours credit each semester

Organ: Major works of Baroque, Romantic, and Contemporary periods studied. Emphasis on careful preparation of a few works for performance in Senior Recital given during following year. 2 hours credit each semester

Percussion: Snare drum solos of difficulty of Abel's *2040's Sortie*. Orchestral studies; Albright, *Snare Drum Studies*; Goldenberg, *Method*. Timpani exercises in pedal effects, glissandi, etc. Goodman Method. Orchestral and band literature. Continued study of accessories. Xylophone and marimba studies by Goldenberg and Bona. Transcriptions of selected violin sonatas by Handel and Corelli; and solos by contemporary composers. Percussion Ensemble. 2 hours credit each semester

Piano: Scales, arpeggios, inversions, dom. 7ths, dim. 7ths, etc.; sight-reading. Bach's *Italian Concerto*, *English Suites*; Beethoven, *Op. 2, No. 3, Op. 28, Op. 31, No. 2*; Schubert, *Op. 120, 143*; Hindemith, *2nd*; Chopin, *Etudes, Ballades*; Brahms, *Intermezzi and Capriccios*; Liszt, *Sonnetto del Petrarca No. 123*; Debussy, *Estampes, Preludes*; Barber, *Excursions*; Bartok, *Ostinato, Sonatine*; Mozart, *K. 488*; Mendelssohn, *G minor*. 2 hours credit each semester

Saxophone: Advanced technique studies. Harmonic studies. Extended range to g3. Selected studies from Karg-Elert, 25

Caprices; Ameller, *Expressive Etudes*; Bozza, *12 Etudes-Caprices*; Mule, *53 Etudes*. Representative literature includes: Creston, *Sonata*; van Delden, *Sonatine*; Bach, *Sixth Sonata* (flute); Ibert, *Concertino da Camera*. Study of chamber music and ensemble music for saxophone. Transposition studies. 2 hours credit each semester

Trombone: Advanced technique and flexibility development. Additional clef study including alto clef. Study of orchestral excerpts. Material from Bordogni-Rochut, Blazeovich, Mueller. Solos by Handel, Hindemith, Earsson, Casterede, and others.. 2 hours credit each semester

Trumpet: Scale and arpeggio studies, advanced transpositions and etudes such as those of Charlier, Charanne, and Sachse. Orchestral excerpts such as those of Bartold and Neuhaus.

Advanced solos such as the works of Haydn, Hindemith, Barat, Hartlay, and Kennan prepared for public performance. 2 hours credit *each semester*

Tuba: Introduction and study of CC tuba. 'Study of orchestral excerpts of Tchaikovsky, Wagner, Berlioz, and Strauss. Continued refinement in musicianship through flexibility, tone production, and phrasing. Study of advanced solo literature such as Hartlay *Sonata for Tuba*; Persichetti, *Serenade No. 12*; Hindemith, *Sonata*; Beversdorf. *Sonata*; or literature of trumpet, trombone, or bassoon. 2 hours credit *each semester*

Viola: Study of advanced instrumental and interpretive technique using etudes by Mazas, Dont, Kreutzer and Campagnoli, works by Hoffmeister, Hoist, Brahms and Vaughn-Williams as well as the *Solo Suites* of Bach. 2 hours credit *each semester*

Violin: Study of advanced instrumental and interpretive technique using etudes by Dont, Kreutzer and Mazas, concerti and sonatas by Beethoven, Bruch, Hindemith, and Mozart as well as the *Solo Sonatas* of Bach. 2 hours credit *each semester*

Voice: Continuation of the study of vocal technique. Possible inclusion of French repertoire with study of opera and oratorio literature. 2 hours credit *each semester*

MU 335-336. Musical Theatre

A

Voice

Continuation of the study of vocal techniques. Possible inclusion of the French repertoire. Continuation of the study of literature of the Broadway stage, opera and oratorio. *Prerequisite* MU 236. 3 hours credit *each semester*

MU 340. Piano Pedagogy

C

Study of the various methods and literature for the elementary student. Lectures and discussions. Observations of private and class lessons. Supervised teaching. Recommended for pianists who have completed the MU 226 level. 3 hours credit

MU 344. Vocal Pedagogy

B

Introduction to the objective study of the art of singing. Findings from related sciences are applied to problems of vocal development and usage ranging from the young child through the adult voice, and to methods, procedures, and concepts of working with public school voices of all ages and with the pedagogy for mature voices in a voice studio setting. 3 hours credit

MU 345-346. Performance Major

A

Prerequisites MU 246, approval for study in Bachelor of Music in Performance degree program.

Bassoon: Study of contemporary performance techniques. Contra-bassoon study and technique. Whole tone scales, scales in fourths and fifths. Preparation of Junior Recital. Representative studies: Stadio, *Orchestral Studies*; Orefici, *Bravura and Melodic Studies*; Gates, *Odd Meter Etudes*. Representative solo literature: Weber, *Concerto*, Etler, *Sonata*; Saint-Saens, *Sonata*; Vivaldi, *Concerto, F. VIII, No. 2*; Dutilleux, *Sarabande and Cortege*. 4 hours credit *each semester*

Cello: Study of more advanced bow and left hand technique and different styles of interpretation using etudes by Franchomme and Popper. Concertos and sonatas by Beethoven, Brahms, Grieg, Hindemith, Saint-Saens, and Lalo, as well as one of the first three suites of Bach. 4 hours credit *each semester*

Clarinet: Selected studies from Jeanjean, *Eighteen Studies*, 16 *Etudes Modernes*; Baermann, *Method Book V*; Stark, *Arpeggio Studies*; Uhl, *48 Studies*. Orchestral studies continued. Representative solos: Debussy, *Premiere Rhapsody*; Brahms, *Sonatas*; Mozart, *Concerto*; Stravinsky, *Three Pieces*. Preparation of Junior Recital. 4 hours credit *each semester*

Classical Guitar: Junior Recital required during this year of study, duration approximately 30 minutes. Much study on expanding left-hand technique through various studies of Villa-Lobos, especially numbers 2, 3, 4, 6, 9, 10, and 12. A Bach Lute Suite is focused upon. Torroba,

Sonatina, transcriptions of I. Albeniz, works by Narvaez, Tedesco, and Ponce also studied. This year will also focus on learning a concerto of difficulty of Ponce or Villa-Lobos. 4 hours credit each semester

Double Bass: Similar to MU 325-326, but with a minimum of seven pieces required including at least one work by J.S. Bach, and a baroque sonata, a standard concerto, and several pieces written since 1900 in different compositional and notational styles. Important orchestral excerpts studied. Preparation of Junior Recital. 4 hours credit each semester

Euphonium: Continued advanced development of musicianship from advanced materials. Presentation of Junior Recital, works selected from solo literature such as those suggested in MU 325-326. 4 hours credit each semester

Flute: Continued study of scale and arpeggio patterns; new performance techniques employed in modern flute composition. Etudes such as Jeanjean *Etudes Modernes*; Taffanel-Gaubert, *Etudes*; Andersen, *Etudes, Op. 63*; Moyse series of studies. Preparation for Junior Recital. Solo literature at level of Griffes, *Poem*; Prokofieff, *Sonata*; Milhaud, *Sonatine*. Further study of orchestral and chamber music excerpts. 4 hours credit each semester

French Horn: Extending horn performance techniques and developing professional consistency. Etudes on level of Maxime-Alphonso, *Book 3 or 4*; Gallay, *Opus 27 or 13*; Kling, *40 Studies*; Belloli, *8 Etudes*; and Reynolds, *8 Etudes*. Solos such as Heiden, *Sonata, Bozza En Foret*; Mozart, *Concerto No. 4*; Haydn, *Concerto No. 1*; and Wilder, *Sonata No. 3*; advanced orchestral repertoire; preparation of Junior Recital. 4 hours credit each semester

Harp: Technique in scales, arpeggios, tone production, pedal technique, study of contemporary effects as in works of Salzedo and Berio. Preparation of Junior Recital. Studies: Grandjany, Bach, *Etudes*; Salzedo, *Conditioning Exercises and Daily Dozen Exercises*. Repertoire: Mozart, *Concerto in C for Flute and Harp*; Spohr, *Fantasia*; Faure, *Impromptu*; Handel-Salzedo, *The Harmonious Blacksmith*; Grandjany, *Rapsodie*; Glinka, *Variation*; Ravel, *Introduction et Allegro*; Heinz Holliger, *Sequenze*. 4 hours credit each semester

Oboe: Reed making, all scales with varied articulations, scales in thirds and fourths, study on English horn, and preparation for Junior Recital. Studies such as Gille *Exercises on the Scales*; Rothwell, *Orchestral Passages*; Bleuzet, *Technique of the Oboe*. Solos such as Cimarosa, *Concerto for Oboe*; Hindemith, *Sonata for Oboe*; Marcello, *Concerto in C minor*; Surinach, *Tientos for English Horn*. 4 hours credit each semester

Organ: Material studied includes major works of Baroque, Romantic, and Contemporary periods. Preparation and presentation of memorized 30-minute Junior Recital. 4 hours credit each semester

Percussion: Snare drum: advanced repertoire, studies, solos. Timpani: advanced tuning and pedal control, four-and more drum studies, solos, repertoire. Percussion Ensemble. Continuation of Multiple Percussion studies and creative writing. Preparation of Junior Recital. Solos: Jones, *Sonata for Three Unaccompanied Kettle Drums*; Firth, *The Solo Timpanist*; Beck, *Sonata for Timpani*; Carter, *Timpani Solos*; Multiple Percussion solos of Frazeur, Stern, D'Angelo, and Kraft; Mallet solos of Granger, Frazeur; Creston, *Concertino for Marimba*; Saint-Saens, *Introduction and Rondo Capriccioso* trans. for marimba; Diemar, *Tocatta for Marimba*. 4 hours credit each semester

Piano: Continuation of technical study and Chopin *Etudes*. Preparation of Junior Recital. Bach, *Partitas, Toccatas*; Beethoven, *Sonatas or Concerti*, such as *Beethoven's Concerto No. 3*; Romantic, Impressionistic, and Contemporary works such as Schuman *Concerto*; Ravel, or Prokofieff *Toccatas*; Persichetti, *Sonatas*. 4 hours credit each semester

Saxophone: Selected studies of level of Lacour, *8 Brilliant Etudes*. Extended range to C4. Reed making. Representative literature includes Hartley *Duo, Concerto*; Benson, *Concertino*; Ibert, *Concertino da Camera*. Preparation of Junior Recital. 4 hours credit each semester

Trombone: Additional coverage of techniques at advanced levels, including orchestral excerpts. Presentation of Junior Recital. Material from Bordogni-Rochut, Blazevich, Bitsch, Kopprasch, Bach, and others. Solos by Hindemith, Casterede, Larsson, Vivaldi, and others. 4 hours credit each semester

Trumpet: Additional advanced etudes and excerpts. Work on additional high trumpets. Preparation of Junior Recital. Survey of additional solo and recital literature. 4 hours credit each semester

Tuba: Advanced etudes and excerpts. Work on F tuba. Preparation of Junior Recital. Survey of recital literature. Tuba excerpts including F tuba from works of Strauss, William Bell, Daily Routine, and Rochut, *Book III Melodious Etudes*. 4 hours credit each semester

Viola: Study of advanced instrumental and interpretive technique using appropriate etudes and compositions leading to the Junior Performance Recital. 4 hours credit each semester

Violin: Study of advanced instrumental and interpretive technique using appropriate etudes and compositions leading to the Junior Performance Recital. 4 hours credit each semester

Voice: Continued study of advanced vocal technique. Preparation of opera and/or oratorio role, as well as introduction to the French Art Song. During the year, 20 to 30 minute recital demonstrating proficiency in at least three languages and interpretative ability in several stylistic periods performed. 4 hours credit each semester

MU 347-348. Applied Music Recitation

A

Student prepares Junior Performance Recital while enrolled in MU 347-348. Recitations scheduled concurrently with appropriate semesters of Applied Music (MU 345, 347 and 346, 348). prerequisites Limited to students in Mus. B. in Performance program registered for MU 345 and 346. 1 hour credit each semester

MU 355-356. Performance Practicum

A

Music Performance majors in orchestral instruments tutoring secondary or non-major applied music classes under supervision of applied studio faculty. Required of majors in the Mus. B. in Performance whose major performance instrument is a woodwind, brass, string or percussion orchestral instrument; other music majors may enroll with permission of the School of Music office. 0 hour credit

MU 351. Woodwind Repair

C

introduction to common repair problems, preventative maintenance, adjustments necessary to maintain good playing condition, and emergency repairs on the woodwind instruments. Replacement of pads, springs, corks and felts. *Prerequisite* ME 271 Clarinet Class and ME 272 Flute Class, or playing competence equivalent. 2 hours credit

MU 370-379. Special Topics in Music

D

Study of music areas supplementing but not replacing regular courses. Topics, credit hours, and instructor determined by school. 1 to 3 hours credit

MU 385. Russian Diction & Song

D

A study of the diction rules of the Russian language as it pertains to singing. includes extensive use of the International Phonetic Alphabet. Students also perform selected Russian romances (songs). prerequisites MU 137-140 or permission of instructor 2 hours credit

MU 385. Business Fundamentals and Personal Career Management for Musicians

C

Business and marketing skills for the professional performing musicians and private studio teacher. Career and financial planning, accounting and record-keeping, taxes and insurance, contracts and booking, promotion and marketing, etc. prerequisite Junior standing in music or permission of instructor. 3 hours credit

MU 400. Recital-Seminar**A**

Required of all senior-level music majors enrolled in private applied music instruction. Students perform or critique performance of colleagues during onecital-seminar each week. Recital schedule rotated one week studio, the next week area, and following week, school recitals.
Corequisites MU 405-406, 425-426, 435-436, or 445-446 *0 hours credit*

MU 405406. Applied Music Major**A**

Weekly half-hour private applied instruction for music majors in Bachelor of Arts Applied degree program. See MU 425426 for further information about the requirements of specific studios.
Prerequisite MU 306. *2 hours credit each semester*

MU 425-426. Applied Music Major A

Prerequisite MU 326.

Bassoon: Preparation of Graduation Recital. Representative studies: Bozza *Quince Etudes Journalieres*; Orefici, *20 Melodic Studies*. Representative solo literature: Mozart, *Concerto, K. 191*; Weber, *Concerto*; Saint-Saens, *Sonata*; Vivaldi, *Concerto, F. VII, No. 2*; Etler, *Sonata*. *2 hours credit each semester*

Cello: Preparation of Graduation Recital. , Music of difficulty of Saint-Saens *Concerto in A*; Lalo, *Concerto in D*; Boccherini, *Concerto in B flat*; Beethoven, *Sonatas III, IV, and V*. *Sonatas by Strauss, Barber, Debussy, Mendelssohn, Shostakovich*. *2 hours credit each semester*

Clarinet: Preparation of Graduation Recital. Selected studies from Jeanjean *16 Etudes Modernes, 18 Studies*; Baermann, *Method, Bk. V. Orchestral Studies*. *2 hours credit each semester*

Classical Guitar: Preparation of Graduation Recital. Materials varied to suit individual progress. However, composers such as Castelnuovo-Tedesco, Villa-Lobes, Rodrigo included. *2 hours credit each semester*

Double Bass: Intensive study of Graduation Recital repertoire, emphasis on development of complete musical presentation. Study of important orchestral excerpts and repertoire of varied musical styles. *2 hours credit each semester*

Euphonium: Preparation of Graduation Recital. Continued refinement of musicianship, and study of advanced solo literature: Casterede, Hartley Wilder, Hindemith, and others. *2 hours credit each semester*

Flute: Further study of articulation and finger techniques. Preparation for Graduation Recital. Comprehensive study and analysis of solo repertoire for flute. Jeanjean *Etudes Moderne*; Andersen, *Etudes, Op. 60*; solo literature at level of Casella, *Sicilienne et Burlesque*; Dutilleux, *Sonatine*; Ibert, *Concerto*. Study of orchestral and chamber music excerpts. *2 hours credit each semester*

French Horn: Preparation of Graduation Recital. Further work on extending techniques; advanced etudes such as Reynold, *48 Etudes*; Maxime-Alphonse, *Books 4 or 5*; and Belloli, *12 Etudes*. Solo repertoire represented by such works as Strauss *Concerto No. 1*; Mozart, *Concerto No. 4*; Heiden, *Sonata*; and Dukas, *Villanelle*. More advanced orchestral repertoire; synopsis of horn pedagogical techniques. *2 hours credit each semester*

Harp: Preparation of Graduation Recital. Music of difficulty of Grandjany *Fantaisie on Haydn Theme*; Ravel, *Introduction and Allegro*; Debussy, *Dances, Trio Sonata*; Hindemith, *Sonata*; Houdy, *Sonata*; Boieldieu, *Concerto*; Salzedo, *Variations sur un Theme dans le Style Ancien*; orchestral excerpts and cadenzas. *2 hours credit each semester*

Oboe: Preparation of Graduation Recital and review of solo literature for oboe. Studies such as Gillet, *Advanced Studies*. Solos such as Haydn, *Concerto for Oboe*; Poulenc, *Sonata for Oboe*; Saint-Saens, *Sonata*. *2 hours credit each semester*

Organ: Preparation of Graduation Recital. Major works of Bach, Romantic, French, and contemporary European and American composers for performance on recital hall instrument. 2 hours credit each semester

Percussion: Preparation of Graduation Recital. Continuation of percussion ensemble, solo literature, and orchestral repertoire: Bartok, *Sonata for Two Pianos and Percussion*; LoPresti, *Sketch for Percussion*; Milhaud, *Concerto for Batterie and Small Orchestra*; Walton, *Facade*; Creston, *Concertino for Marimba and Orchestra*; Milhaud, *Concerto for Marimba, Vibraphone, and Orchestra*; Tharichen, *Concerto for Timpani*; Chavez, *Toccata for Percussion Ensemble*; Jones, *Sonata for Three Unaccompanied Timpani*. Repertoire study: selected examples from orchestral and band literature for all percussion instruments; Goodman, Excerpts from *Orchestral Literature for Timpani, Modern Method*. 2 hours credit each semester

Piano: Technical review. Preparation of Graduation Recital. Bach *Toecatas, Partitas*; Beethoven; Schumann; Schubert, *Sonatas*; Chopin, *Ballades, Scherzi*; Brahms, *Rhapsodies*; Liszt, *Etudes*; Ravel, *Sonatine*; Prokofieff, *Sonatas*; Bartok, *Op. 14*; Dello Joio, *3rd Sonata*. Concerti: Beethoven, *No. 3*; Franck, *Symphonic Variations*; Schumann; Ravel, *G major*. 2 hours credit each semester

Saxophone: Three-octave range. Studies of level of Lacour *8 Brilliant Etudes*. Preparation of Graduation Recital. Representative literature includes: Hartley *Duo*; Creston, *Concerto*; Pascal,

Sonatine; Bonneau, *Caprice*; Dubois, *Divertimento*; Bozza, *Concertino*; Larsson, *Concerto*; Benson, *Concertino*. Survey of teaching materials for saxophone. 2 hours credit each semester

Trombone: Advanced studies of the clefs. Further study of orchestral excerpts. Graduation Recital preparation. Material by Bitsch, Boutry, Maenz, Bach, and others; solos by Hindemith, Thomas, Hartley, Stevens, and others. 2 hours credit each semester

Trumpet: Additional advanced etudes and excerpts. Survey of advanced recital and solo literature, from Baroque to avant garde. Preparation of Graduation Recital. 2 hours credit each semester

Tuba: Advanced orchestral studies of Strauss, Stravinsky, Bruckner. Preparation of Graduation Recital; advanced studies from Barnard, *40 Studies*; and Gaetke, *50 Studies*. 2 hours credit each semester

Viola: Study of advanced technical methods and repertoire leading to the Senior Recital. 2 hours credit each semester

Violin: Study of advanced technical methods and repertoire leading to the Senior Recital. 2 hours credit each semester

Voice: Preparation of Graduation Recital. Material includes a culmination of understanding of three years of study. 2 hours credit each semester

MU 435436. Musical Theatre

A

Voice

Preparation of the B.F.A. in Musical Theatre Recital which includes dance technique, acting technique and the culmination of the three previous years of vocal study.

prerequisite: MU 336 3 hours credit each semester

MU 445446. Performance Major

A

Prerequisites: MU 346, approval for study in Bachelor of Music in Performance degree program.

Bassoon: Comprehensive study and analysis of solo and chamber music literature. Preparation of Senior Recital. Representative studies: Bozza *Etudes Journalieres*; Bitsch, *Vingt Etudes*; Dubois, *Douze Etudes*; Strauss, *Orchestral Studies*; Schoenbach, *20th Century Orchestral Studies*. Representative solo literature: Gordon Jacob *Concerto*; Vivaldi, *Concerto in E minor*; Hummel, *Concerto*; Jolivet, *Concerto*; Tomasi, *Concerto*; Bozza, *Concertino*. 4 hours credit each semester

Cello: Study of artist level of bow, left hand technique and different styles of interpretation using etudes by Piatti, Grutzmacher, and Servais. Concertos and sonatas by Chopin, Debussy, Locatelli, Dvorak, Elgar, and Schumann, as well as one of the last three suites of Bach. 4 hours credit each semester

Clarinet: Preparation of Senior Recital. Advanced orchestral studies. Survey of solo and chamber music repertoire for clarinet. 4 hours credit each semester

Classical Guitar: Works the caliber of the following are studied: Sor *Grand Solo and Fantasias*; Giuliani, *Grand Overture, Sonata Op. 15*; Frank Martin, *Quatre Pieces Breve*; R.S. Brunde, *El Palifermo de oro*; etc. Senior Recital required. 4 hours credit each semester

Double Bass: Similar to MU 425-426, but increased emphasis on individual needs of student. Preparation of Senior Recital. 4 hours credit each semester

Euphonium: Preparation of Senior Recital. Advanced studies from Bitsch and Tomasi. Possible study of trombone. 4 hours credit each semester

Flute: Preparation of Senior Recital. Comprehensive study and analysis of solo literature, orchestral, and chamber music excerpts. Continued study of advanced etude materials. Solo literature at level of Casella, *Sicilienne et Burlesque*; Dutilleux, *Sonatine*; Ibert, *Concerto*. 4 hours credit each semester

French Horn: Refinement of playing style. Advanced etudes such as Gallay *Opus 43 or 32*; Schuller, *Barboteu and Bellolo 24 Studies*; solo literature on level of Schumann, *Adagio and Allegro*; Strauss, *Concerto No. 2*; Gliere, *Concerto*; and Mozart, *Quintet*. Advanced orchestral excerpts. Preparation of Senior Recital. 4 hours credit each semester

Harp: Technique: study of contemporary effects as in works of Salzedo and Berio. Studies: Grandjany-Bach, *Etudes*. Repertoire: Debussy, *Dances*; Hindemith, *Sonata*; Boieldieu, *Concerto*; Gunther Schuller, *Fantasy*; Britten, *Suite*; Berio, *Sequenze*; Bussotti, *Fragmentations*; Salzedo, *Variation on a Theme ("Dans le stile ancien")*; Grandjany, *Fantasie on Haydn Theme*. 4 hours credit each semester

Oboe: Preparation for Senior Recital. Comprehensive study and analysis of solo and ensemble repertoire for oboe. Studies such as Bleuzet, *Technique of the Oboe*; Bozza, *18 Etudes*; Gillet, *Advanced Studies*. Solos such as Britten, *Fantasy for Oboe and*

Strings; Goosens, *Concerto for Oboe*; Haydn, *Concerto in C major*; Mozart, *Quartet for Oboe and Strings*. 4 hours credit each semester

Organ: Preparation of memorized 50 to 60 minute Senior Recital. Literature representative of different styles and periods, including at least one American work. Possible concerto or ensemble performance. 4 hours credit each semester

Percussion: Continuation of snare drum and multiple percussion. Audition and recital preparation; emphasis on analysis and interpretation in all areas. Timpani: advanced etude studies and solos such as Bartok, *Sonata for Two Pianos and Percussion*; Tharichen, *Concerto for Timpani and Orchestra*. Mallets: solos, concerti, advanced studies, Percussion Ensemble, and creative writing. Studies: Firth, *The Solo Timpanist*; Bona, *Part III*. Such solos as Stockhausen, *Refrain, Zyklus*; Milhaud, *Concerto for Batterie and Small Orchestra*; Cresten, *Concertino for Marimba and Orchestra*; Milhaud, *Concerto for Marimba, Vibraphone and Orchestra*; Dahl, *Duettino for Flute and Solo Percussion*; Russell, *Concerto for Solo Percussion and String Orchestra*. 4 hours credit each semester

Piano: Literature covering all periods. Works such as Beethoven, *Sonatas Opus 81A, 109, 110*; Chopin, *Sonatas*; Prokofieff, *Concertos*; Copland, Barber, *Sonatas*. 4 hours credit each semester

Saxophone: Survey of teaching materials for saxophone. Study of more difficult literature such as Brant, *Concerto*; Franchetti, *Canti*; Wirth, *Idlewood Concerto*; Korn, *Concerto*. Preparation of Senior Recital. 4 hours credit each semester

Trombone: Advanced study materials of Bitsch, Boutry, Bozza, etc. Orchestra excerpts. Solo literature such as Bassett, Milhaud, Creston, Hartley, and others. Presentation of Graduation Recital. 4 hours credit each semester

Trumpet: Advanced contemporary etudes such as those of Bitsch, Stevens, and Smith. Study of trumpet master works such as the Bach *Brandenburg Concerto, No. 2*; Telemann *Concerto in D*; Tomasi, *Concerto*; Jolivet *Concertino*. Preparation of Senior Recital. 4 hours credit each semester

Tuba: Advanced contemporary studies (odd meter, Polyrhythms, etc.), continued advanced technical studies, and study of *20th century Orchestral Studies* of Abe Torchinsky. Survey of advanced master works for tuba: Hindemith, *Sonate fur Basstuba und Klavier*; David Rock, *5 Studies for Tuba Alone*; Persichetti, *Serenade No. 12 for Tuba*; Downey, *Tabu for Tuba*; and preparation of Senior Recital. 4 hours credit each semester

Viola: Similar to 425-426 but on a more demanding level leading to the Senior Performance Recital. 4 hours credit each semester

Violin: Similar to 425-426 but on a more demanding level leading to the Senior Performance Recital. 4 hours credit each semester

Voice: Continued study of technique and vocal repertoire. Full recital required. Student should have at least one operatic or oratorio role and several arias at his/her command. 4 hours credit each semester

**MU 447448. Applied Music
Recitation**

A

Student prepares Senior Performance Recital while enrolled in MU 447-448. Recitations scheduled concurrently with appropriate semesters of Applied Music (445, 447; and 446,448).
1 hour credit each semester

(Music Business, see Special Studies, pg. 161)

PHILOSOPHY

Office: 2109 Fenton Hall

Kenneth G. Lucey, *Chairperson*

Philosophy is the study of the most basic questions one can ask about reality, human existence, knowledge, value, and meaning. The philosophy department offers a major, a minor, and a series of courses designed to complement student majors in other fields, *as well as courses of general interest* to almost any student.

Courses designed to complement student majors in other fields include:

Business/Economics--PL 218 Introduction to Ethics, PL 265 Social and Political Philosophy, PL 310 Administrative Ethics, PL 312 Current Moral issues and Principles, and PL 342 Values in a Technological Society.

Computer Science--PL 116 Introduction to Deductive Logic, PL 216 Intermediate Deductive Logic, PL 340 Symbolic Logic, PL 341 Artificial Intelligence, and PL 430 Philosophy of Mind.

Art/Film/Music / Theatre--PL 270 Philosophy of the Arts, PL 272 Philosophy of the Visual Arts, PL 273 Film Aesthetics, PL 274 Philosophy of Literature, PL 275 Philosophy of Music, and PL 373 Film Theory.

Law and Justice--PL 218 Introduction to Ethics, PL 263 Lawyer's Ethics, PL 265 Social and Political Philosophy, PL 310 Administrative Ethics, PL 312 Current Moral Issues and Principles, PL 338 Marxist Thought, PL 362 Philosophy of Law, and PL 363 Judicial Decision Making.

Natural and Social Sciences--PL 317 Philosophy of Science, PL 318 Philosophy of the Social Sciences, PL 329 Magic into Science, PL 342 Values in a Technological Society, PL 116 Introduction to Deductive Logic, PL 216 intermediate Deductive Logic, PL 220 Introduction to Inductive Logic, and PL 340 Symbolic Logic.

The philosophy department has advisement material available for students who wish to pursue an interest in philosophy in conjunction with these majors and concentrations.

Required Courses for the B.A. Degree in Philosophy

Thirty hours in philosophy, at least 18 hours of which are in courses numbered 300 or above.

Students are required to take a logic course:

PL 116	Intro. to Deductive Logic	
	or	3
PL 216	Intermediate Deductive Logic	
	or	3
PL 220	Intro. to Inductive Logic	
	or	3
PL 340	Symbolic Logic	

and a history of philosophy course:

PL 222	The Greek Way	
	or	3
PL 224	Medieval Thought	
	or	3
PL 226	The Age of Reason and Its Legacy	
	or	3
PL 326	The Age of Analysis: Philosophy Since 1900	

A Model Program would include:

		Hrs.
PL 115	Philosophical Inquiry	3
PL 116	Intro. to Deductive Logic	3

PL 218	Intro. to Ethics or	3
PL 265	Social & Political Thought	
PL 345	The Meaning of Life or	3
PL 350	Philosophy of Language & Semantics	
PL 430	Philosophy of Mind or	3
PL 438	Metaphysics: Reality and Existence or	3
PL 440	Theory of Knowledge And related courses in one of the in- terest groups indicated above.	12
Seniors are strongly urged to take a seminar:		
PL 446-449	Selected Problems in Philosophy or	3
PL 460-468	Major Philosophers	30

Students should consult the department for current offerings in the above areas. All waivers of requirements must be approved by the chairperson.

For Minor in Philosophy: 18 hours in philosophy with at least 9 hours in courses numbered 300 or above, as advised. Students may choose to concentrate in any one of the interest groupings described above.

The philosophy department participates in the Cooperative Agriculture and Cooperative Engineering programs. Refer to descriptions of these programs on page 46 and page 82, respectively.

PL 105. Philosophical Ideas

A

Introduction to the central ideas of, prominent Western philosophers, earliest times to present. Lecture class. 3 hours credit

PL 106. Critical Thinking

C

This course uses the jury room as an ideal setting for the study and practice of critical thinking. Through analysis of dramatic courtroom examples and examination of the critical thinking skills necessary for effective jury deliberation, it hones analytic skills and encourages careful thought. The primary feature of the course is the consideration of an abundance of exercises, examples, and applications from everyday life, ranging from the courtroom to political debate and from advertising to current social issues. 3 hours credit

PL 115. Philosophical Inquiry

A

Discussion of some central problems of philosophy such as existence of God, nature of reality, conditions of knowledge, question of free will versus determinism, and foundations of morality. Discussion class. 3 hours credit

PL 115. (Alternate Content)

A

Philosophy in the World Cross Cultural Introduction

This course addresses some of the major questions that have defined Western philosophy: How should one live? What makes society just? Is there a Supreme Being? Can we survive death? Such questions are universal and fundamental to all humanity, although various cultures offer radically different solutions. Accordingly, readings from Hindu, Buddhist, Chinese, African, Native American, Latin America and feminist philosophers are included along with major Anglo-European thinkers. The course aspires to reveal the rich diversity that comprises global philosophizing. 3 hours credit

PL 116. Introduction to

A

Deductive Logic

Explanation of critical thinking and logical reasoning, including the theory of deductive inference, truth-tables, and techniques for detecting fallacies. 3 hours credit

PL 216. Intermediate Deductive Logic**D**

Study of deductive inference using symbolic language. Topics include the nature of a proof and a formal system, a propositional calculus, and a predicate calculus. *Prerequisite* PL 116 or instructor's consent. 3 hours credit

PL 218. Introduction to Ethics**C**

Examination of major ethical theorists from Aristotle to Sartre. Considers such questions as Why should I be moral? Are ethical principles relative or absolute? What is a good person? Can there be morality without religion? 3 hours credit

PL 220. Introduction to Inductive Logic**D**

Examination of nature of inductive reasoning and its applications. Particular attention paid the problem of justifying inductive inferences, and the paradoxes of confirmation. 3 hours credit

PL 222. The Greek Way**C**

Introduces students to classical Greek philosophy through study of the historical, cultural, social, and political conditions of ancient Greece. Part of the course is devoted to a careful examination of the social context of ancient Greece and to the sources and manifestations of Greek values mythological, religious, literary, educational, and aesthetic. 3 hours credit

PL 224. Medieval Thought**C**

Introduces students to Islamic, Judaic, and Latin-Christian thought of the Middle Ages, particularly the 11th to 13th centuries. The course examines the significance of the Greco-Roman tradition to medieval hopes and fears and addresses problems prevalent in all three cultures the relationship between faith and reason; the nature of the Supreme Being; the connection between theology and art, politics, and metaphysics; and the origin and cause of our world. 3 hours credit

PL 226. The Age of Reason and Its Legacy**C**

An examination of the nature of reality, knowledge, and experience as portrayed by the Rationalists (Descartes, Leibniz, and Spinoza) and the Empiricist (Locke, Berkeley, and Hume). The legacy of these thinkers as reflected in standard notions of causality, truth, proof, and argument will be explored in relation to contemporary thinkers such as Kuhn, Winch, Habermas, and Rorty. 3 hours credit

PL 228. American Philosophy**C**

Examines the political philosophy, epistemology, scientific method, and criteria of truth, argument, and reason which distinctively characterizes the Founding Fathers, the Transcendentalists, and the Pragmatists. Includes consideration of the question Is there something distinctively American about American philosophy? 3 hours credit

PL 238. Philosophy of Religion**B**

Philosophic examination of such basic problems as the nature of religion, existence of God, methods of attaining religious knowledge, problem of evil, and possibility of immortality. 3 hours credit

PL 248. The Dynamics and Philosophy of Suicide**D**

A multifaceted approach drawing on many social disciplines to understand the etiology of suicide and the problems of social policy. Among the topics discussed are suffering and the meaning of life, the sociology of suicide, the psychodynamics of suicide, the ethics of suicide and suicide prevention, and consensual euthanasia. 3 hours credit

PL 258. Life and Death**B**

An investigation of such questions as the following Are there permissible exceptions to the belief that life is precious or sacred? When, if ever, is homicide or its like permissible? That is to say

when, if ever, is it morally right to terminate human life or allow it to end? Topics may include abortion, suicide and euthanasia, capital punishment, war, and animal rights. 3 hours credit

PL 263. Lawyers' Ethics**C**

Investigation of such questions as the following Does the professional role impose duties that are different from, or even in conflict with, common morality? Does the adversary system necessitate behavior on the part of lawyers that would be immoral if performed by non-lawyers? Must a lawyer's moral character be affected by the profession's role morality? Does legal education corrupt moral character?. Does the adversary system, itself, have overriding value? 3 hours credit

PL 265. Social and Political Philosophy**B**

Questions of the proper form of human association, the just balance of economic, political, and social power, and the nature of the relationship between the state and , the individual are explored in the works of prominent historical and contemporary theorists. The course includes an examination of the origins of human communities and the nature of social commitment as viewed by major political philosophies such as classical republicanism, libertarianism, liberalism, socialism, and communism. 3 hours credit

PL 270. Philosophy of the Arts**D**

Introduction to philosophical problems in the arts. Nature of art and aesthetic value; 'aesthetic attitude and experience; description, interpretation, and evaluation of works of art among topics considered. Problems specific to music, film, literature, painting, and sculpture are also discussed. 3 hours credit

PL 272. Philosophy of the Visual Arts**D**

Investigation of theoretical foundations of the visual arts including discussions of representation, expression, and the relationship between art and nature. Readings drawn from writings of philosophers, psychologists, and artists. 3 hours credit

PL 273. Film Aesthetics**D**

Examination of the nature of film as a medium of art, including its formal characteristics and narrative structures, the bases of criticism of individual films, and film genres. Discussion and written work will be based on careful viewing of a variety of films. 3 hours credit

PL 274. Introduction to Existentialism**D**

Examination of the nature and background of one of the leading philosophical movements in Continental Europe. Existentialist thinkers such as Kierkegaard, Nietzsche, Sartre, and Heidegger discussed. 3 hours credit

PL 275. Philosophy of Music**D**

Examination of music from a philosophical perspective. Topics discussed include emotion, representation, and value in music, as well as the roles of composer, performer, and listener in the musical experience. 3 hours credit

PL 310. Administrative Ethics**A**

Ethical problems which typically arise in administrative or managerial contexts in both private and public sectors. Nature of ethical theories, their implications for decision-making, and specific administrative concerns will be examined. 3 hours credit

PL 312. Current Moral Issues and Principles**B**

Discussion of moral issues of significance today such as abortion, euthanasia, sexual ethics, affirmative action, animal rights, torture, and war. In exploring answers to these issues the course includes an introduction to moral principles produced by traditional theories such as natural law, utilitarianism, Kantianism, and the social contract tradition. 3 hours credit

PL 317.- Philosophy of Science**B**

Investigation of the nature of scientific explanation, relation between theory and observation, and methods of testing hypotheses. Relation between philosophy of science and epistemology, and distinction between science and non-science also explored. 3 hours credit

PL 318. Philosophy of the Social Sciences**D**

Study of the differences and similarities between the social sciences and the natural sciences. The special philosophical problems posed by the nature and methods of the social sciences. The problems of values, of explanation, and of verification in the social sciences. 3 hours credit

**PL 326. The Age of Analysis
Philosophy Since 1900****C**

Study of major currents in 20th century analytic philosophy developed in the work of such philosophers as Russell, Moore, Wittgenstein, the logical positivists, and the ordinary language analysis. 3 hours credit

PL 329. Magic into Science**B**

Study of the shift from a magical world view to a scientific one. Case studies of the birth of experimental science. The logic of discovery and confirmation. Contemporary criticisms of rational reconstructions of scientific progress. 3 hours credit

PL 335. Medical Ethics**C**

Examination of classical and contemporary issues in biomedical contexts. Topics will be chosen from among the following the physician-patient relationship; informed consent; ethical dilemmas confronting nurses; privacy and confidentiality; euthanasia; perspectives on death and dying; allocation of scarce medical resources, including health care itself; and experimentation. The course will explore both moral reasoning and specific case studies, as it aims at a critical understanding of biomedical theory and practice. 3 hours credit

PL 338. Marxist Thought**B**

Investigation of the central themes of the tradition its view of history, economics, the nature of political struggle, the status of law and morality, and the effects of our material living conditions on our forms of thought. The relevance of Marxism to revolutionary political movements is explored in the works of thinkers such as Lenin, Stalin, Trotsky, Luxemburg, Gramsci, and Marcuse. 3 hours credit

PL 340. Symbolic Logic**D**

Study of the properties of formal logical systems. Topics include the difference between object language and meta-language, differences between axiomatic and natural deduction systems, the consistency, completeness, and decidability of formal logical systems, as well as topics in computability and the limits of formal systems. prerequisite PL 116 and 216 or instructor's consent. 3 hours credit

PL 341. Artificial Intelligence**C**

An examination of techniques of artificial intelligence, including language understanding, reasoning, and planning, and a discussion of the main philosophical problems surrounding artificial intelligences. Issues include Can computers ever duplicate human thought and emotion? Should we even try to have them do so? When should one treat computers morally? 3 hours credit

PL 342. Values in a Technological Society**B**

Examination of features of a technological society that affect our ethical and political values. Which values are threatened by a technological society and which ones are supported by it. How values are determined and how they may be maintained. 3 hours credit

PL 345. The Meaning of Life**B**

Study of the major views concerning the purpose and worth of human existence. Particular attention is paid to the problem of the need for illusion, distinguishing between having a meaningful and meaningless span of life, and developing rational life plans. 3 hours credit

PL 346. Human Happiness**B**

A study of the major theories of happiness. The topics include some of the following different views of happiness; external vs. internal causes; the roles of love and death; and the duty to promote the happiness of oneself and others. 3 hours credit

PL 350. Philosophy of Language and Semantics**D**

Discussion of the nature of language and the relations between recent linguistic research and philosophical problems concerning the nature of the human mind, the nature of science, and the nature of meaning. 3 hours credit

PL 362. Philosophy of Law**C**

Examination of the nature and function of legal reasoning in Tort, Contract, and Criminal Law through an analysis of the moral principles underlying those areas. Explores the nature of political, social, and economic pressures reflected in and emerging from law. Addresses thematic questions such as Is there a coherent moral vision underlying law? Is legal practice consistent with American legal theory and dominant ideologies? What is the relationship, if any, between the law and the moral vision? 3 hours credit

PL 363. Judicial Decision Making**C**

Examination of the major theories of judicial decision making including Legal Formalism, Natural Law, Legal Positivism, Legal Realism, Legal Idealism, Law as Economics, and the Critical Legal Studies Movement. Topics include the extent to which, if any, judicial decision making is rational, the moral and legal constraints on the judiciary, and the nature of the materials judges must consult in deciding cases. 3 hours credit

PL 430. Philosophy of Mind**C**

Examination of philosophical theories of the mind-body problem, the problem of other minds, the nature of personal identity, and topics in artificial intelligence, such as Can computers (ever) think? 3 hours credit

PL 438. Metaphysics Reality and Existence**C**

Critical examination of central metaphysical problems, such as the nature of reality; relationships of scientific to common sense world views; nature of space, time, and causation; and existence of abstract entities. prerequisite Three hours of philosophy or instructor's consent 3 hours credit

PL 440. Theory of Knowledge**C**

Consideration of nature and sources of human knowledge. Epistemic appraisal, truth and rationality, the problems of perception and other minds. prerequisite Three hours of philosophy or instructor's consent. 3 hours credit

PL 446449. Selected Problems in Philosophy**D**

Special topics and problems not treated in the courses listed above. Topics specified in *Course Offerings Bulletin*. 3 hours credit each semester

PL 460468. Major Philosophers**D**

Intensive study of the thought of a major philosopher of either historical or contemporary significance. Topics specified in *Course Offerings Bulletin*. 3 hours credit each semester

PL 469. Bertrand Russell**D**

A critical examination of Russell's theory of knowledge and social philosophy. Special attention to Russell's theory of the state, marriage and morals, and the nature of education. 3 hours credit

PL 481. Directed Study**A**

Student, with faculty member's guidance, will study a topic not currently offered, or will engage in studies in greater depth than current course offerings permit. *Prerequisite* Instructor's consent. 1-3 hours credit

PL 485. Independent Study**A**

Student will pursue a course of independent study and present evidence of accomplishment at end of semester. *Prerequisite* Philosophy major and instructor's consent. 13 hours credit

PHYSICS

Office: 118 Houghton Hall

Michael N. Grasso, *Chairperson*

The discipline of physics is basic among the sciences and focuses on study of natural phenomena. In the process, the student is provided with a broad-based liberal education. The physics department offers a major, a minor, a major in the 3-2 Cooperative Engineering and Cooperative Agriculture programs, a provisional certification to teach physics in secondary school, interdisciplinary majors in geophysics and mathematics-physics with the geosciences and mathematics/computer science departments, respectively; and courses to complement majors in other areas.

Student Honors and Awards

Students should contact the physics chairperson for additional details for these awards.

Hank Arroe Memorial Scholarship Award

John J. Connelly Physics Scholarship Incentive Award

John Jr.- Connelly Physics Peer Recognition Award

Physics Department Scholarship Award

For the Major in Physics (B.S. Degree)

Required courses for the Physics major (36 hours):

PH 230-231	General Physics I & II and PH 232-233 (Labs)	8
PH 234	Modern Physics	4
PH 400	Undergraduate Seminar	1
PH 425-426	Mathematical Physics I & II	6

Two courses (6 hours) from: 6

PH 330	Thermodynamics	
PH 331	Theoretical Mechanics	
PH 333	Electricity & Magnetism	
PH 431	Intro. to Quantum Mechanics	
	Plus 11 additional hours as advised from PH 321 through 479, 490	11
		36
MA 122-123-223	University Calculus I, II & III	12
MA 224	Differential Equations	3
		15

Note: Minimum cumulative G.P.A. of 2.0 required in above courses for graduation.

Plus 15 additional hours in science, mathematics, computer science, engineering or education including CS 125 or higher level programming course as advised.

Course Requirements for Cooperative Engineering/Physics:

Students in the 3-2 Cooperative Engineering program pursuing a degree in Physics from the College at Fredonia take:

PH 230-231	General Physics I & II and PH 232-233 (Labs)	8
PH 234	Modern Physics	4
PH 321	Engineering Mechanics	4
PH 400	Undergraduate Seminar	1
PH 425-426	Mathematical Physics I & II	6

One course from:

PH 323	Circuit Analysis I	3
	or	
PH 325	Electronics and PH 327 (Lab)	
	or	4
PH 326	Digital Electronics and PH 328 (Lab)	

Two courses (6 hours) from:		6
PH 330	Thermodynamics	
PH 331	Theoretical Mechanics	
PH 333	Electricity and Magnetism	
FH 431	Intro. to Quantum Mechanics	
	Plus one additional course as advised from PH 322 through 326	3-4
		35-37
MA 122-123-223	University Calculus I, II & III	12
MA 224	Differential Equations	3
		15

Note: Minimum cumulative GPA of 2.0 required in above courses for graduation.

Plus 15 additional hours in science, mathematics, computer science, engineering, including some courses from PH 322 through 326 as advised. For students interested in electrical engineering PH 323 and 324 should be taken, while for students interested in non-electrical engineering PH 322 should be taken.

**Course Requirements for the B.S. Degree in Geophysics:
Students interested in this joint major should contact the chairperson of physics or geosciences.**

Core Program (26 hours in geosciences; 17 hours in physics; 26 hours in related disciplines).

GS 165	Physical Geology	3
GS 120	Map Reading and Interpretation (Lab)	1
GS 130	Mineral, Rock, and Fossil Identification (Lab)	1
GS 215	Minerals and Rocks	4
GS 310	Field Geology	3
GS 335	Geophysics	4
GS 355	Project in Geosciences (or comparable assessment course/activity in Physics)	2
GS 370	Structural Geology	4
GS X.XX	Geology elective (GS 350 Geomorphology, is strongly recommended)	4
		26
PH 230-231	General Physics I & II and PH 232-233 (Labs)	8
PH 321	Engineering Mechanics I	4
	or	
PH 330	Thermodynamics	3
	or	
PH 331	Theoretical Mechanics	3
	or	
PH 333	Electricity and Magnetism	3
PH XXX	Electives from PH 321 through PH 479	6
		17-18
MA 122-123-223	University Calculus I, II	12
MA 224	Differential Equations	3
CS XXX	Any course (preferably CS 104 Introduction to Microcomputers)	3
CH 115-116	General Chemistry I & II and CH 125-126 (Labs)	8
		26

A course in scientific writing, as part of GCP

Requirements for the B.S. Degree in Mathematics-Physics

Core Program (32-33 hours in mathematics/computer science; 27 hours in physics; 9 hours in supporting courses).

CS 125	FORTTRAN Programming	3
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CS 260	or Programming I	4
<i>Plus 29 hours in mathematics including:</i>		
MA 122-123-223	University Calculus I, II & III	12
MA 210	Foundations of Discrete Mathematics	4
MA 224	Differential Equations	3
MA 231	Linear Algebra with Applications	4
	Plus at least two mathematics courses at the 300 level or higher as advised	6
		32-33
PH 230-231	General Physics I & H and PH 232-233 (Labs)	8
PH 234	Modern Physics	4
Two courses (6 hours) from:		6
PH 330	Thermodynamics	
PH 331	Theoretical Mechanics	
PH 333	Electricity & Magnetism	
PH 431	Intro. to Quantum Mechanics	
	Plus 9 additional hours from PH 321 through 479, 490	9
		27

Plus 9 hours of supporting courses as advised

In satisfying the listed requirements students must take either MA 323 and 420, or MA 323 and PH 425, or PH 425 and PH 426.

For Minor in Physics: A minimum of 21 semester hours in physics, including PH 230, 231, 232, 233, and 234 and 9 additional hours in physics courses numbered 321 through 479, 490 as advised by a physics department faculty member and approved by the department. Additionally, 15 semester hours in mathematics MA 122, 123, 223 and 224 are required.

Note: Minimum cumulative GPA of 2.0 required in above courses for graduation.

Students who desire to teach physics in the secondary schools may obtain provisional certification by completing the major in Physics .described above and the required certification courses in professional education. The procedure to be followed for admission to the professional sequence of courses is described on page 79. Also required is one year of collegelevel study of a language other than English, or the equivalent.

The physics department participates in the Cooperative Agriculture and the Cooperative Engineering programs. Refer to descriptions of these programs on page 46 and page 82 respectively.

PH 101. Topics in Contemporary Science

A

(Designed for students majoring in humanities and social sciences.) Non-mathematical survey of selected areas of contemporary science, emphasis on ideas and concepts of physics, including its role in society. 3 hours credit

PH 103. Energy

D

Lecture course surveying major aspects of energy and its relation to humans, designed primarily for students with an interest in environmental studies. Introductory treatment of the concept, generation, transport, and utilization of energy, including monetary and ecological considerations, emphasizing unifying role energy plays. 3 hours credit

PH 104. Cosmology

D

Non-mathematical presentation of selected topics regarding the latest theories of the formation of the universe including ideas from special and general relativity. 1 hour credit

PH 107. Particles and Waves

D

Unifying principles of particles and waves viewed from classical and modern physics. *Hour credit*

PH 108. Energy and Entropy**D**

Unifying concepts of energy, entropy, forms of energy and applications. *hour credit*

PH 109. states of Matter**D**

Different states of matter discussed such as solids, liquids, gases, plasmas, superconductors, elementary particles, black holes. *1 hour credit*

PH III. Introduction to Physical Sciences**A**

For non-science majors. Emphasis on laws of nature, principles, atomic and nuclear structure. 3 hours credit

PH 121-122. College Physics**B**

A non-calculus lecture sequence. PH 121 motion, dynamics, conservation theorems, wave motion, heat, sound; 122 electromagnetic fields, circuits, optics, quantum phenomena. Students requiring a laboratory component should include PH 123-124. prerequisite MA 106 or equivalent. 3 hours credit *each semester*

PH 123-124. College Physics Laboratory**B**

One three-hour laboratory session per week treating topics covered in PH 121-122. *Corequisite* PH 121 for 123, 122 for 124. *1 hour credit each semester*

PH 200. Engineering Graphics**A**

Introduction to tools, language, and procedures basic to training of an engineering draftsman. Emphasis on drafting techniques, and two-dimensional and isometric representation. 2 hours credit

PH 230-231. General Physics**A**

A Calculus-based lecture sequence for science and mathematics majors who have completed a course or courses in University Calculus or the equivalent. PH 230 kinematics, dynamics, gravitation; 231 thermodynamics, electricity and magnetism, optics. *Prerequisites* MA 122 for PH 230, MA 123 for PH 231. *Corequisites* PH 232 for 230, 233 for 231. 3 hours credit *each semester*

PH 232-233. General Physics Laboratory**A**

One three-hour laboratory session per week treating topics covered in PH 230-231. *Corequisites* PH 230 for 232, 231 for 233. *1 hour credit each semester*

PH 234. Modern Physics**B**

Special relativity, wave motion, basic concepts of quantum mechanics, atomic structure, solid state, and nuclear physics. *Prerequisite* PH 231 or permission of department. 4 hours credit

PH 300. Introduction to Health Physics**D**

A non-calculus lecture-demonstration course surveying major concerns in health physics, designed primarily for majors in the natural sciences and science-related areas. Introductory treatment of the sources of atomic and nuclear radiation, interaction of radiation with matter, radiation dosimetry, health physics instrumentation, biological effects of radiation, and radiation protection. prerequisite One semester college-level physics. *3 hours credit*

PH 311. Acoustics I**B**

Elements of physics bearing directly on production and assimilation of musical tones, wave motion, resonance, complex waves, physiology of hearing, musical scales, simple acoustical models of musical instruments. prerequisite Junior standing or permission of department. *3 hours credit*

PH 312. Acoustics II**B**

Psychoacoustics and architectural acoustics. A study of the mechanics and neurological foundations of the perception of pitch, loudness, timbre, and direction, followed by a contrasting study of the behavior, measurement, and evaluation of sound and music in a variety of environments, utilizing both objective techniques and the psychoacoustical insights gained from the first part of the course. prerequisite PH 311 or permission of instructor. 3 hours credit

PH 316. Computer Logic Design**D**

Lecture course providing a basic understanding of digital logic gates used in computer design. Number representations, logic circuits, design of combinational and sequential circuits, arithmetic circuits, flip-flops, registers, counters, memories, control unit and simple processor architecture, microprogramming. prerequisite CS 260, or one semester of computer programming and PH 122 or equivalent, or permission of department. 3 hours credit

PH 318. Basic Electronics**B**

Introduction to electronic circuits, devices, and systems with practical applications to recording engineering and biomedical instrumentation. Non-majors only. Prerequisites One semester calculus; PH 122 or 231. 3 hours credit

PH 319-320. Microcomputer Interfacing**D**

introduction to microprocessor chips, architecture, and instruction set. Microcomputers and machine-language programming. Processing data inputs and stacks. Generation of device select pulses. Input/output programming. Analog interfacing and data acquisition. prerequisites One course in computer science, PH 122 or equivalent, or permission of department for PH 319. PH 319 for PH 320. 2 hours credit each semester

PH 321. Engineering Mechanics I**B**

A tensor calculus treatment of applied mechanics including fundamentals of mechanics, vector algebra, equivalent force systems, equilibrium, structural mechanics, friction, surfaces, kinematics, dynamics, energy, momentum, relative motion, dynamics of rigid bodies, and Euler's equations. Prerequisite PH 230. Corequisite MA 223 or higher. 4 hours' credit

PH 322. Engineering Mechanics II**B**

Continuation of PH 321 including stress, strain, mechanical properties of solids, multidimensional stress-strain relations, section forces in beams, stresses in beams, deflection of beams, torsion, stresses and strain relations at a point, Mohr's circle, energy methods, elastic stability, and vibrations. Prerequisite PH 321. Corequisite MA 224 or higher. 4 hours credit

PH 323. Circuit Analysis I**B**

A development of network analysis including Ohm's and Kirchhoffs laws, operational amplifiers, nodal analysis, network theorems, trees and links, energy-storage elements, RC and RL circuits, second order circuits. Corequisite MA 223 or higher. 3 hours credit

PH 324.- Circuit Analysis II**B**

Continuation of PH 323 including sinusoidal excitation and phasors, AC steady-state analysis, three-phase circuits, complex frequency and network functions, frequency response; transformers, Fourier and Laplace transforms. Prerequisite PH 323. Corequisite MA 224 or higher. 3 hours credit

PH 325. Electronics**C**

Course treats analog electronics. AC and DC circuits and laws of network analysis. Elements of semiconductor physics. Diodes, rectifiers, filters and regulated power supplies. Bipolar and FET transistors and transistor amplifier circuits. Feedback and operational amplifiers. Discrete and integrated circuit oscillators, multivibrators, and waveshaping. prerequisite Permission of department. Corequisite PH 327. 3 hours credit

PH 326. Digital Logic**B**

TTL characteristics, Boolean algebra, logic functions, and minimization procedures. Logic gates and implementation. Design of combinational and sequential circuits. Flip-flops, counters, shift

registers, and arithmetic circuits. Analog to digital and digital to analog conversion. Solid state memories and simple processors. *Prerequisite* Permission of department. *Corequisite* PH 328. 3 hours credit

PH 327. Electronics Lab **C**
Laboratory to accompany and supplement PH 325 *Corequisite* PH 325. 1 hour credit

PH 328. Digital Lab **B**
Laboratory to accompany and supplement PH 326 *Corequisite* PH 326 1 hour credit

PH 330. Thermodynamics **B**
Concepts of temperature, laws of thermodynamics, entropy, thermodynamic relations and potentials, processes, properties and cycles, applications to physical systems. *Prerequisite* PH 231. *Corequisite* MA 223. 3 hours credit

PH 331. Theoretical Mechanics **B**
Vector-tensor approach to classical mechanics including kinematics, dynamics, oscillations, Lagrange's and Hamilton's equations, transformations, central force, and rigid body motion. *Prerequisite* MA 224. 3 hours credit

PH 333. Electricity and Magnetism **B**
Mathematical theory of electrostatics and electromagnetism employing vector calculus. Applications of Maxwell's equations. *prerequisite* MA 224. 3 hours credit

PH 335. Physics Laboratory Techniques **D**
Modern physics experiments, measurements of fundamental constants, and basic electronics for science majors. *Prerequisite* PH 234 or permission of department. 3 hours credit

PH 340. Optics **C**
An introduction to geometrical, physical, and modern optics *Corequisite* MA 224. 3 hours credit

PH 341. Optics Laboratory **C**
Laboratory to accompany and supplement PH 340 *Corequisite* PH 340. 1 hour credit

PH 400. Undergraduate Seminar **A**
Presentations by students discussing topics in physics. Counted once for the 36 credit hour physics requirements. *Prerequisite* Junior or senior standing. 1 hour credit

PH 401. Special Relativity **C**
Tensor calculus approach to relativistic kinematics, dynamics, optics, electrodynamics, and selected applied topics. *Prerequisite* Permission of department. 3 hours credit

PH 425. Mathematical Physics I **B**
Applied methods including cartesian and noncartesian vector and tensor analysis, eigenvectors and eigenvalues, infinite series, complex functions *Prerequisite* Junior standing. 3 hours credit

PH 426. Mathematical Physics II **B**
Applied methods including partial differential equations of physics, boundary value problems, Sturm-Liouville theory and eigen functions, special functions, Green's functions. *prerequisite* PH 425 or permission of the department. 3 hours credit

PH 431. Introduction to Quantum Mechanics **B**
Concept of wave-particle duality, Schroedinger's wave equation with applications to potential problems, to the hydrogen atom, and to atomic spectra; perturbation theory, and spin-orbit interaction. *Prerequisite* PH 431 or permission of department. 3 hours credit

PH 432. Nuclear Physics **D**

Nuclear constituents and radioactivity, nuclear reactions, theory, forces, and structure. Neutron physics, fission, and elementary particles. prerequisite PH 431 or permission of department. 3 hours credit

PH 434. Solid State Physics**C**

Crystal structure, conduction theory, binding and energy levels and other properties of conductors, semiconductors, dielectrics, and magnetics. prerequisite PH 431 or permission of department. 3 hours credit

PH 435436. Advanced Undergraduate Laboratory**D**

Experiments in optics; atomic, nuclear, and solid state physics. prerequisite Permission of department. 3 hours credit *each semester*

PH 470479. Special Topics**A**

Areas not covered in regular courses. Broad range of topics consistent with teaching and research interests of department. *1-3 hours credit each semester*

PH 480. Laboratory Supervision in Physics**A**

Students enrolled serve as laboratory assistants under faculty supervision. Approval to register must be obtained from department. Three hours of work per week are expected for each hour of credit elected. Course may be repeated for a maximum of 6 hours credit applicable toward fulfillment of physics or mathematics-physics major's supporting course requirements. (A major in physics or mathematics-physics is not a prerequisite.) *3 hours credit per semester*

PH 490. Senior Thesis**D**

Theoretical or experimental research in physics. prerequisite Senior standing and permission of department. 3 hours credit

POLITICAL SCIENCE

Office: E366 Thompson Hall

Leonard E. Faulk Jr., Chairperson

Political science is a liberal arts discipline designed to prepare students as informed citizens and leaders in contemporary society. Our graduates hold responsible positions at federal, state and local levels of government, as well as with businesses and corporations. Following completion of college, many of our students' continue their studies in graduate or law school. The Department of Political Science sponsors a variety of internships, including full-time internships in Albany and Washington, D.C. Students may supplement a major with work in one of the Public Service Concentrations that introduce students to career fields related to public service. These concentrations are described on pages 164-168 of this catalog.

As a major in Political Science students have a choice of three program options, selection to be made by the conclusion of the first semester, junior year:

Government and Politics Public Law and Policy Political Economy

The program in *Government and Politics* (B.A. degree) provides a broad treatment of politics in the modern world. Students electing this option select courses from the five substantive fields of political science (American Political Institutions, Comparative Politics, International Politics, Political Theory and Public Policy/Law).

The program in *Public Law and Policy* (B.A. degree) is a more specialized curriculum emphasizing the analysis of public policy and its implementation in administrative bodies and courts. The focus of the program in Public Law and Policy is twofold: first, the study of the principles and problems central to administration in the governmental sector; second, the study and evaluation of selected governmental policies. Students electing this program will take an internship under supervision of the Department of Political Science.

The program in *Political Economy* (B.A. degree) is an interdisciplinary curriculum combining the study of politics and economics. Students electing this program explore the relationship between political institutions and economics. Courses focusing upon domestic as well as international topics are available.

Students should see a faculty advisor or the department chairperson to discuss a choice of program and the careers open within the major. Regardless of the program chosen, the members of the department are dedicated to sharing with students the excitement and challenge of politics in today's world.

Students wishing to teach political science in the secondary schools may obtain provisional certification by completing the program described and the required courses in Professional Education. The procedure to be followed for admission to the professional sequence of courses is described on page 79.

Requirements for the B.A. Degree in Political Science: 36 credit hours

1. Students majoring in Political Science must take the following courses (12 hours):

A. *Introductory courses (9 hours):*

PS 120	American Politics	3
PS 121	American Public Policy	3
PS 150	U.S. & World Affairs	3

B. *Methods course [3 hours]:*

PS 200	Methods & Statistics	3
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All four introductory courses must be taken before enrollment in more than two 300 level courses.

2. In addition to the above courses, majors in Political Science select one of the following programs:

GOVERNMENT AND POLITICS

A. Seven or more 300 level courses (21 hours) in at least four fields, divided accordingly: Three (3) courses in one field Two (2) courses in a second field One (1) course in a third field One (1) course in a fourth field

The following additional conditions apply:

at least one (1) 300 level course must be taken in American Political Institutions.

at least two (2) 300 level courses must be taken in either Comparative or International Politics; or at least one (1) 300 level course from Comparative and one (1) 300 level course from International Politics.

Courses are offered in five fields as listed below:

American Political Institutions:

PS 311	Fundamentals of Public Administration	3
PS 313	American Power Structures	3
PS 321	Political Parties and Interest Groups	3
PS 322	New York Government	3
PS 323	American Electoral Behavior	3
PS 324	President and Congress	3
PS 370	American Constitutional Law	3
PS 329	Topics in American Politics	3

Public Policy and Law:

PS 371	Civil Rights and Liberties	3
PS 379	Topics in Public Law	3
PS 380	Policy Evaluation	3
PS 382	Social Welfare Systems	3
PS 383	Courts & Social Policy	3
PS 388	U.S. Political Economy	3
PS 389	Topics in Public Policy	3

Comparative Politics:

PS 330	Western European Politics	3
PS 331	Canada: Politics in a Multicultural Society	3
PS 332	Russian Politics	3
PS 334	African Politics	3
PS 341	Political Economy of Development	3
PS 344	Public Policies in Advanced Industrial Democracies	3
PS 345	Film & Politics	3
PS 347	Comparative Political Parties	3
PS 349	Topics in Comparative Politics	3

International Politics:

PS 352	World Geography	3
PS 354	Middle East in World Affairs	3
PS 355	International Political Economy	3
PS 356	U.S. Foreign Policy	3
PS 359	Topics in International Politics	3

Political Theory:

PS 360	Classical Political Theory	3
PS 361	Modern Political Theory	3
PS 365	American Political Thought	3
PS 369	Topics in Political Theory	3
	B. Political science elective	3

PUBLIC LAW AND POLICY

A. Introductory Law Course (3 hours)

Either PS 276 Law and Society or PS 277 Introduction to Law

B. Advanced Courses (at least two courses from the following for a total of 6 hours):

PS 370	American Constitutional Law	3
PS 371	Civil Rights and Liberties	3
PS 383	Courts & Social Policy	3
PS 389	Topics in Public Law	3

C. Advanced American Public Policy Courses (at least two courses from the following for a total of 6 hours):

PS 313	American Power Structures	3
PS 380	Policy Evaluation	3
PS 388	U.S. Political Economy	3
PS 389	Topics in American Public Policy	3

D. Advanced International/Comparative Public Policy Courses (at least two courses from the following for a total of 6 hours):

PS 341	Political Economy of Development	3
PS 344	Public Policies in Advanced Industrial Democracies	3
PS 355	International Political Economy	3
PS 356	U.S. Foreign Policy	3
PS 359	Topics in Foreign and/or International Policy	3

E. Advanced Course in American Political Institutions (one course from the following for a total of 3 hours):

PS 311	Public Administration	3
PS 321	Political Parties & Interest Groups	3
PS 322	New York State Government	3
PS 323	American Electoral Behavior	3
PS 324	President and Congress	3

F. Approved Public Service Internship is required except in unusual circumstances (3 hours).

Note: The Public Law and Policy program requires 39 course hours, 3 more hours than what is required in the Government and Politics program.

POLITICAL ECONOMY

A. Introductory economics courses (6 hours)

EC 201	Principles of Macroeconomics	3
EC 202	Principles of Microeconomics	3

B. Core Advanced Political Science courses in Political Economy (four courses from the following for a total of 12 hours):

PS 313	American Power Structures	3
PS 334	African Politics	3
PS 341	Political Economy of Development	3
PS 344	Public Policies of Advanced Industrial Democracies	3
PS 352	World Geography	3
PS 354	Middle East in World Affairs	3
PS 355	International Political Economy	3
PS 382	Social Welfare Systems	3
PS 388	U.S. Political Economy	3

C. Advanced economics courses (6 hours from the following):

EC 320	International Trade & Finance	3
EC 335	Economic Development	3
EC 345	Comparative Economic Systems	3
EC 355	Labor & Industrial Relations	3
EC 380	Environmental and Natural	3

EC 405	Resource Economics Industrial Organization (for- merly Government Regula- tion of Business)	3
		6

D. Two additional Political Science electives(*Must be at 300 level or above*).

Note: The Political Economy Program requires 42 course hours.

Requirements for a Minor in Political Science

At least 21 hours in political science, including 12 semester hours of 300 level courses. Students who wish to be officially certified as a Political Science minor should plan a program with a departmental advisor. They should see an advisor at least once each semester thereafter.

As a minor in Political Science, students may select either a wide cross section of courses from the various fields within the discipline or a group of courses focusing on one of the following specializations:

Public Law & Policy
Political Economy
American Politics
International and Comparative Politics
Political Theory

For a listing of courses in each minor, students should see an advisor or the department chairperson.

Certification in International Political Economy

A certificate program in International Political Economy is available. The program is open only to Business Administration and Economics majors. The certificate is awarded following successful completion of the following:

- 1 PS 150 U.S. & World Affairs 3
- 2 9 hours from among the following:

PS 334	African Politics	3
PS 341	Political Economy of Development	3
PS 344	Public Policies in Advanced Industrial Democracies	3
PS 354	Middle East in World Affairs	3
PS 355	International Political Economy	3
PS 356	U.S. Foreign Policy	3

Special Programs/ Awards

Washington Semester Program: The Department of Political Science Selects, students each year to spend a semester in Washington, D.C. Selectees may be either majors or non-majors, but must be juniors or seniors at the time they go to Washington. Fifteen credits are granted for participation in the program.

Albany Semester Program: Similar in structure to the Washington Semester Program, but with residence in Albany and in internship with a state agency or the New York State Legislature, 15 credits.

Local Government and Legal Intern Programs: The department offers a number of internships in local government and local law-related agencies.

Internships: No more than 3 hours of internship credit may count toward the Political Science major or minor.

B.A.S.S. Concentrations The department participates in various B.A.S.S. concentrations, such as Law and Justice; Labor and Industrial Relations; International Service; and Social Work.

The political science department also participates in the Cooperative Agriculture and Cooperative Engineering Programs. Refer to descriptions of these programs on page 46 and page 82, respectively.

Pi Sigma Alpha The department is a member of Pi Sigma Alpha, the National Political Science Honor Society. Outstanding undergraduates majoring in Political Science are admitted to membership.

J. Murdoch Dawley Award The Department of Political Science annually gives the J. Murdoch Dawley Award to the outstanding graduating senior in Political Science. This endowed award is given at the conclusion of the spring term.

J.R. Soukup Pi Sigma Alpha Awards The Department of Political Science Department gives two such awards. One award will be given to the outstanding junior in Political Science during the spring term of his or her junior year. The second award will be given to the graduating senior who not only demonstrates scholarship but is pursuing studies and/or a career in some form of private or public community service. This latter award will be given during the spring term.

Pre-Law Advisement

The department provides advice to students interested in law school and law-related careers. It maintains an up-to-date collection of law school catalogs which are available in the J. Murdoch Dawley Reading Room (E369 Thompson Hall). The department's pre-law advisors provide assistance in evaluating the results of the Law School Admission Test (LSAT).

INTRODUCTORY COURSES

PS 120. American Politics

A

Critical examination of key aspects of the American political system. What are the major institutions of political power? How is power obtained? Which groups or social classes tend to possess more power in these institutions and why? How does the political system manage change? 3 hours credit

PS 121. American Public Policy

A

Introduction to the policy-making process, substantive governmental actors and analysis of policy impacts. A wide range of policies studied. prerequisite PS 120 or permission of department. 3 hours credit

PS 150. U.S. and World Affairs

B

Studies the major characteristics and explanations of the behavior of countries in international politics. Emphasis upon the sources of international power, the struggles for power in the post-W.W. II period, patterns of great power conflict involving the U.S. and U.S.S.R., and contemporary issues and conflicts such as the nuclear arms race, revolutionary wars in Vietnam and El Salvador, the Middle East conflict, and the oil crisis in the international economic system. These cases employed to analyze major traits in international politics. 3 hours credit

PS 200. Methods and Statistics

B

Introduction to the substantive and technological methodology used in study of politics commonly employed by government offices. Attendance required. 3 hours credit

Note Only one statistics "200" course can be taken for credit.

INTERMEDIATE COURSES

PS 276. Law and Society

A

Introductory examination of law as instrument of social control; philosophies regarding appropriate operations and functions of law and courts; and controversies surrounding questions of proper relationships between law, morals, and governmental policy. 3 hours credit

PS 277. Introduction to Law

B

An examination of Anglo-American legal principles based upon the analysis of court cases. A broad range of topics are covered, including criminal and civil law, legal remedies, punishment, torts and contracts. 3 hours credit

PS 280. Special Topics in Politics**D**

Examination of a current topic in politics, such as presidential or congressional elections. May be taken more than once as topics change. prerequisite Assigned by individual instructor. 14 hours credit

AMERICAN POLITICAL INSTITUTIONS**PS 311. Fundamentals of Public Administration****B**

Examination of role of bureaucracy and administration in America. Initial focus on political setting of the bureaucracy as it interacts with other key actors and institutions. Then consideration of internal characteristics and processes, and examination of topics such as organization theory, decision-making, personnel, and budgeting. Prerequisite PS 120 or permission of department. 3 hours credit

PS 313. American Power Structures**C**

Examination of the power structure of the United States. Analysis of how factors such as economic status and race or ethnicity influence who holds or controls political power in federal, state and local governments. Contrasting theories of "who governs" studied include pluralist, elite, and socio-economic class. Case research of local power structure used. 3 hours credit

PS 321. Political Parties and Interest Groups**C**

Fundamental place of political party in political systems, emphasis on structure, processes, organization, functions, behavior, and citizen attitudes and activities. Prerequisite PS 120 or permission of department. 3 hours credit

PS 322. New York Government**D**

Study of constitution, governmental institutions, and policy-making in the State of New York. prerequisite PS 120 or permission of department. 3 hours credit

PS 323. American Electoral Behavior**C**

Critical examination of the psychological and rational choice explanations of voting. Emphasis is placed on the evidence supporting the alternative explanations. In the process of evaluating the alternative explanations, the determinants of voting, the extent of ideological thinking, trends in turnout, the political business cycle and historical changes in voting patterns are examined. prerequisite PS 120 or permission of the department. 3 hours credit

PS 324. President and Congress**B**

Critical examination of the roles (frequently overlapping and in conflict) of the American President and Congress in making decisions about public policy in the U.S. Attention will be given to recruitment patterns and behavior while in office as well as the nature of the policy outputs. Analysis of institutional forms in other nations will be included to provide a comparative perspective. prerequisite PS 120 or permission of the department. 3 hours credit

PS 329. Topics in American Politics**D**

Examination in depth of current topic in American politics not falling within any other American politics course. May be taken more than once as topics change. prerequisite PS 120 or permission of department. 3 hours credit each semester

PS 370. American Constitutional Law**B**

Study of nature and limitations of judicial review and Supreme Court decisions regarding distribution of powers among national and state governments, division of powers between president and Congress, and limitations upon congressional and presidential powers. prerequisite PS 120 or 276 or permission of department. 3 hours credit

ADVANCED COMPARATIVE COURSES**PS 330. Western European Politics****C**

Comparative study and analysis of governments and politics of the United Kingdom, France, Germany, Italy, and other Western European nations. Considerable attention will be given to the changing socioeconomic characteristics of these nations in the context of the evolving European Community and the drive for European integration. prerequisite Three hours in political science, HY 116 or permission of the department. *3 hours credit*

PS. 33 1. Canada Politics in a Multicultural Society

C

Examination of the background and socioeconomic foundations of contemporary Canadian politics with special emphasis to the impact of linguistic, cultural and geographic divisions and their impact on the institutions and decision making processes in Canada. Attention will also be given to the influence of the U.S., the United Kingdom and France on Canada. prerequisite Three hours in political science or permission of the department *3 hours credit*

PS 332. Russian Politics

C

Critical introduction to the theory and practice of Russian governmental institutions and political processes in light of Russian history, the Soviet and Marxist efforts to redirect that history and the rapid political, social, economic and cultural changes in the former Soviet Union in the late 1980s and '90s and especially the aftermath of the abortive coup of August 1991. *Prerequisite* Three hours in political science or permission of department. *3 hours credit*

PS 334. African Politics

C

Study of contemporary African politics focusing upon processes of political change and conflict, including analysis of traditional societies, patterns of colonial rule, rise of modern political systems, economic changes and resulting cleavages, and the role of parties, associational groups, the military, and ideology. prerequisite Three hours in political science or permission of department *3 hours credit*

PS 341. Political Economy of Development

C

Examination of ways in which political economic factors and relationships condition the patterns and possibilities for economic development and political change. The course explores how do economies develop? does class power, domestic and international, determine economic growth patterns and which social classes benefit? how does this occur? Contrasting analyses, both non-Marxist and Marxist, used. Contemporary and historical class studies of the political economy of development in Europe, the Middle East, Latin America, and Africa employed. prerequisite Three hours of political science or permission of department *3 hours credit*

PS 344. Public Policy in Industrial Democracies

C

Survey and comparative analysis of public policies in advanced industrial democracies, with emphasis on the U.S., Western Europe, Japan, and Canada. Special emphasis on government-business relations, labor relations, regional trading blocs, industrial planning, public ownership of economic enterprises, privatization, tax policy, and government-delivered health care systems. prerequisite Three hours in political science or permission of the department *3 hours credit*

PS 345. Film and Politics

C

This course uses film to explore major aspects of political life and the cultural creation of meaning about social and political power, hierarchies, values, and activities. Films are studied as social and political products and to enhance understanding of political phenomena in the American and other cultures. These phenomena include social/political movements and race, gender, and class conflict. Feature films used. *Prerequisite* Junior standing. *4 hours credit*

PS 347. Comparative Political Parties

C

Theoretical and comparative examination of the origin of political parties, the development of the mass party, the stabilization of party systems, the transformation of party systems, and typologies of party systems. Theoretical constructs are applied to individual party systems the dominant party system of Japan, European-style coalition government, divided government in the U.S., and sample Third World countries. prerequisite Three hours in political science or permission of department. *3 hours credit*

PS 349. Topics in Comparative

D

Politics

Examination in depth of current topics in comparative politics not falling within any other comparative politics course. May be taken more than once as topics change. *Prerequisite* Three hours in political science or permission of department. 3 hours credit *each semester*

ADVANCED INTERNATIONAL RELATIONS COURSES**PS 352. World Geography****D**

Examination of a) interrelationships between *physical* (size, location, terrain, climate), *cultural* (languages, religion), and *economic* (soil conditions, natural resources), geography and the development of social, economic and political institutions and conflicts; b) impact of movement by goods, services, investment capital and labor on political and social development; c) the nature and causes of food, energy and environmental crises worldwide; and d) relationship between geography and major *historical* trends.

prerequisites Sophomore standing. 3 hours credit

PS 354. Politics of the Middle East**C**

Analysis of Middle East politics, society, and international conflicts. Covers the historical and cultural background of Middle East states, the rise of Arab, Israeli, and other nationalisms, and the contemporary politics and political economy of major Middle East states. Assesses three entangled dimensions of conflict in the Middle East inter-Arab struggles, Arab-Israeli conflict, and the contest for power between the U.S. and U.S.S.R. 3 hours credit

PS 355. International Political Economy**C**

Focuses on linkage between international economic and political power and on international economic policies, institutions, and problems in political-economic relationships of major states. Consideration of the role of major powers in regulation of the international political economy, multinational corporations, key international economic institutions, and Third World efforts to change economic relationships with major powers. 3 hours credit

PS 356. U.S. Foreign Policy**C**

Analysis of U.S. foreign policy in the post-World War II period. Assesses the corporate, ideological, institutional, and strategic influences in policy-making. Studies patterns of U.S. relations with the U.S.S.R., Europe, Latin America, and the Third World up to the present in the context of the Cold War, the arms race, Third World struggles, U.S. responses to revolutionary change, and U.S. efforts to maintain a world order. *prerequisite* PS 150 or permission of department. *3 hours credit*

PS 359. Topics in International Politics**D**

Examination in depth of current topic in international politics not falling within any other international politics course. May be taken more than once as topics change. *Prerequisite* PS 150 or permission of department. 3 hours credit *each semester*

ADVANCED POLITICAL THEORY COURSES**PS 360. Classical Political Theory****C**

Analytic treatment of main problems of political theory by examination of writing of major political thinkers Greeks to Middle Ages. *prerequisite* Three hours of political science or permission of department. 3 hours credit

PS 361. Modern Political Theory**C**

Analytic treatment of main problems of political theory by examination of writing of major political thinkers rise of the modern state to the present. *prerequisite* Three hours of political science or permission of department. 3 hours credit

PS 364. Politics and Literature**D**

Explores contemporary political experiences and conflict through literature. Focus on crucial roles of political and power relationships in our lives, moral dilemmas posed by political activity and the failure to *act*, tension between our values and preferences as individuals, and the social good and needs of the community. 3 hours credit

PS 365. American Political Thought**C**

Critical examination of writing of .American political philosophers, colonial period to present, to reveal major issues, trends, and changes in American political thought.
prerequisite PS 120 or permission of department. 3 hours credit

PS 369. Topics in Political Theory**D**

Examination in depth of topics in political theory not falling within any other political theory course. May be taken more than once as topics change. prerequisiteThree hours of political science or permission of department. 3 hours credit*each semester*

PUBLIC POLICY AND LAW**PS 371. -Civil Rights and Liberties****B**

Study of judicial cases involving safeguarding of individual civil and property fights, special emphasis upon recent developments in interpretation of the due process and equal protection of the law clauses and First Amendment of the U.S. Constitution*Prerequisite* PS 120 or 276 or permission of department. 3 hours credit

PS 379. Topics in Public Law**D**

Examination in depth of topics in public law not falling within any other public law course. May be taken more than once as topics vary. prerequisiteThree hours of political science or permission of department. 3 hours credit

PS 380. Policy Evaluation**B**

In-depth examination of the methods and techniques used to assess the success/failure of public policies. Students "learn how to" evaluate, acquiring skills that could be applied to any policy area. Topics include choice of goals, identification of measures, collection of data, interpretation of data and use of an appropriate yardstick of success. Familiarity with statistics not required. Student learning reinforced by use of several case studies of specific evaluations.
prerequisite PS 120 or permission of department.*3 hours credit*

PS 382. Social Welfare Systems**B**

Examination of the history, politics, and operation of the social welfare system in the United States. Emphasis on a policy analysis of current social welfare issues such as the Social Security crisis, the relationship between welfare and national economic policy, the functions of public welfare versus private charity, and the connections between direct service and social reform. prerequisite PS 120 or 121 or permission of the department.*3 hours credit*

PS 383. Courts and Social Policy**D**

Examines role of the Supreme Court and other courts in the shaping of public policies in such areas as school systems in desegregation cases, mental hospitals, prisons, and nursing homes. The course will choose from current cases involving major social policy issues such as abortion, prayer in public schools, affirmative action, and capital punishment in order to illustrate the dramatic and controversial role of the courts, especially the Supreme Court, in the shaping of policies in America.*Prerequisite* PS 276. 3 hours credit

PS 388. U.S. Political Economy**C**

Discussion of theoretical constructs underlying current thinking in political economy. Structure of U.S. economy is compared to economic systems of other countries. Examines roles of government in U.S. economy. Problems and issues are investigated. Special stress on public policies concerning labor, industrial planning, and international trade. prerequisite 120 or prior course work in American political institutions.*3 hours credit*

PS 389. Topics in Public Policy**D**

Examination in depth of topics in public policy not falling within any other public policy course. May be taken more than once as topics vary. prerequisiteThree hours of political science or permission of department. 3 hours credit*each semester*

SPECIAL COURSES FOR WASHINGTON SEMESTER STUDENTS

(prior selection required)

PS 401. Washington Seminar **A**
3 hours credit

PS 402. Washington Internship **A**
6-9 hours credit

PS 403. Independent Study **A**
(Washington) 3 hours credit

SPECIAL COURSES FOR ALBANY SEMESTER STUDENTS

(Prior selection required)

PS 405. Independent Study **A**
(Albany) 3 hours credit

PS 406. Seminar in State Politics **A**
(Albany) 4 hours credit

PS 407. Albany Internship **A**
6-12 hours credit

SPECIAL COURSES FOR LOCAL INTERNSHIPS

(Prior selection required)

PS 490. Intern in Local Politics anti Government **A**
Assignment to office of county, city, or village administrative official, public service agency, legislator, political party, judge, or attorney. Provides opportunities for testing theories and concepts developed in classroom. Involves full-time work during part of semester. prerequisite.' Prior selection by department. *Corequisite* PS 491. 3-6 hours credit

PS 491. Seminar in Local Politics and Government **A**
Discussion and reporting on selected readings and experiences encountered in internships at local government level, including assessment of roles and/or power position of particular agencies, offices, or departments to which interns are assigned. Also involves writing research paper. prerequisite Selection for participation in PS 490. 3 hours credit

PS 492. Legal Intern **D**
Assignment to law-related office. Provides opportunities for testing theories and concepts developed in classroom. Involves full-time work during part of semester. *Prerequisite* Prior selection by department. *Corequisite* PS 494. 3-6 hours credit

PS 494. Legal Intern Seminar **D**
Discussion and reporting on selected readings and experiences encountered in legal internships. Also involves writing research paper. *Prerequisite* Selection for participation in PS 492. 3 hours credit

DIRECTED STUDIES COURSES

The following Directed Studies courses are taken for individual work not available in regular courses, according to the field to be studied. Topics determined through prior consultation with instructor. *Prerequisite:* At least 6 hours in political science in appropriate field.

PS 419. Directed Study Public Administration **D**

PS 429. Directed Study American Politics **D**

PS 439. Directed Study Comparative Politics **D**

PS 449. Directed Study Political Economy	D
PS 459. Directed Study International Politics	D
PS 469. Directed Study Political Theory	D
PS 479. Directed Study Law	D
PS 489. Directed Study Public Policy	D
PS 499. Directed Study Political Science <i>1-3 hours credit</i>	D

PRE-LAW

The College at Fredonia has a rich tradition of preparing students for the study of law through rigorous undergraduate training. Fredonia graduates have had remarkable success in gaining entry to and graduating from many of the nation's finest legal institutions. The Fredonia pre-law committee emphasizes personal advising for law school preparation carried out by highly trained professionals, several of whom are lawyers.

With rare exceptions, law schools do not demand any particular undergraduate program. Indeed, since law deals with a great variety of societal problems, the student should avoid an academic program that is too narrow or restrictive.

Law schools tend to emphasize a broad undergraduate curriculum that stresses the ability to understand the human conditions that surround people and shape lives, particularly through reasoning and writing. For example, the Association of American Law Schools and the Law School Admission Council advocate that students should take courses which will improve their (a) communication skills, (b) critical understanding of the human institutions and values with which the law deals, and (c) creative and analytical thinking. Since many programs of study contain these emphases, students should seek out courses and a major in which they find the greatest intellectual stimulation and challenge.

The college helps pre-law students by offering a variety of valuable courses and providing expert advisors to work with students, guiding them to find those majors and courses that will be the most beneficial and enriching. Students must recognize the importance of selecting demanding work which will help sharpen their intellectual skills and prepare them for the law school competition. Rigorous courses in the humanities and social and natural science all contribute to the ability to think, write and understand the laws governing human societies. Hard work and wise counsel are the key ingredients to success in law school.

A collection of current law school catalogs is maintained in the J. Murdoch Dawley Reading Room (E369 Thompson Hall). Information on the Law School Admission Test (LSAT) is available from members of the Pre-law Advisory Committee, and the test is offered at Fredonia on various dates. For specific dates and applications, contact the Counseling Center, 507 Maytum Hall.

(Pre-Law, see also Political Science, pg. 143; Pre-Medicine, see Biology, pg. 52)

PSYCHOLOGY

Office: W357 Thompson Hall
Jack Croxton, *Chairperson*

The psychology department has several objectives:

To provide the student with a basic knowledge of a broad range of psychological concepts and theories, and an understanding of the methods used by psychologists in the study of human behavior; to contribute to the building of an integrated liberal education, designed to equip the student for postgraduate employment or further specialized education; and to demonstrate the relevance of psychological analysis to current social problems and provide students with the knowledge to better understand themselves and others.

To meet these objectives the department offers courses spanning the entire field of psychology. It recognizes superior student performance with the Psychology Merit Award and the Darlene Prokopowicz Memorial Scholarship, and it supports the Psychology Club and a local chapter of *Psi Chi*, the national honor society for psychology. See the department chairperson for additional information.

Requirements for the Major in Psychology (B.A. Degree):

I. *Courses in Psychology*

		Hrs.
PY 129	Introduction to Psychology	3
PY 130	Psychology Laboratory	1
PY 200	Statistics	3
PY 210	Research Methods	4

The above courses are to be completed by the end of the junior year.

<i>One course from the Physiological Perceptual Area:</i>		3
PY 342	Perception	
PY 351	Physiological Psychology	

<i>One course from the Lear, igcognitive Area:</i>		3
PY 243	Principles of Learning	
PY 244	Cognitive Psychology	
PY 444	Psychology of Language	

<i>One course from the Social Personality Area:</i>		3
PY 245	Social Psychology	
PY 246	Personality	

<i>One course from the Applied Area:</i>		3
PY 247	Health Psychology	
PY 317	Tests & Measurements	
PY 347	Industrial/Organizational Psychology	
PY 447	Introduction to Counseling	

<i>One course from the Developmental Area:</i>		3
PY 289	Lifespan Human Development	
PY 349	Child Psychology	
ED 225	Developmental Psychology	

Students choosing to take ED 225 .must take an additional psychology elective in order to fulfill the requirement that they have 35 hours of psychology courses.

<i>One Orientation course:</i>		3
PY 429	History and Systems of Psychology	
PY 439	Senior Honors Seminar	
PY 443	Theories of Learning	

PY 456	Theories of Personality Psychology electives	6 35
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- II. A minimum of 12 hours in a field other than psychology, chosen with advisement to complement the major, of which at least 6 hours must be at the upper level.
- III. At least one course in mathematics (i.e. the MA code) excluding MA 103.
- IV. Of the total hours counting for graduation, a minimum of 30 hours must be at the upper level and 75 hours must be outside of psychology.

Requirements for the Minor in Psychology

General Minor:

A minimum of 18 hours in psychology, with at least 9 hours at the upper level including at least one course from the physiological perceptual area or the learning cognitive area (PY 243, 244, 342, 351, or 444) and one course from the social-personality area or the applied area (PY 245, 246, 247, 317, 347, or 447).

Industrial-Organizational Psychology Minor:

A minimum of 21 hours, distributed as follows:

Core Courses--12 hours

PY 129	Introduction to Psychology	3
PY 200	Statistics	3
PY 347	Industrial-Organizational Psychology	3
PY 317	Tests and Measurements	3

Two courses from the following: 6 hours

PY 227	Applied Psychology
PY 245	Social Psychology
PY 355	Group Dynamics
PY 447	Introduction to Counseling

One course from the following-3 hours

SO 322	Work and Society
SO 325	Complex Organizations
SO 329	Industrial Sociology

Requirements for Transfer Credit

For a transfer course to be counted toward the minimum hours required for a major or a minor, the course must be evaluated as equivalent to a course taught in the Department of Psychology.

For a major, a limit of 12 transfer credits may be counted towards the 35 required, i.e., a minimum of 23 hours must be taken in the department at the College at Fredonia.

For a minor, a limit of 9 transfer credits may be counted toward the 18 required, i.e., a minimum of 9 hours must be taken in the department at the College at Fredonia.

The psychology department participates in the Cooperative Agriculture and Cooperative Engineering programs. (See pages 46 and 82, respectively.)

PY 129. Introduction, to Psychology

A

Basic concepts, methods, and points of view in psychology. Specific topics span the range from biological to personal to social determinants of behavior. 3 hours credit

PY 130. Psychology Laboratory

A

A series of computer-based laboratories to give the student "hands on" experience with a variety of phenomena in psychology. After the computer exercise, students discuss findings, implications, and applications in small groups. *Pre or Corequisite* PY 129. Students currently enrolled in PY 129 will be given preference if the course is over-enrolled. *1 hour credit*

PY 200. Statistics**A**

Investigation of basic principles of descriptive and inferential statistics used in the social sciences. A sample of the topics covered includes probability, hypothesis testing (e.g., t-tests, analysis of variance, non-parametrics), correlation and regression. Both raw score formulas and computer software are employed for computational purposes. 3 hours credit

Note Only one statistics "200" course can be taken for credit.

PY 210. Research Methods**A**

Introduction to various research methodologies employed in the social sciences ranging from observational through experimental research. Students are familiarized with basic principles of research design, data collection, data analysis and manuscript preparation (APA format).
Prerequisites PY 129 and 200. 4 hours credit

PY 227. Applied Psychology**C**

Discussion of emerging areas in psychology and the application of psychological principles to real-world settings. Focus on relationship between psychology and various other areas, such as law, medicine, business, and mental health.
Prerequisite PY 129. 3 hours credit

PY 243. Principles of Learning**B**

Examination of classical and instrumental conditioning. Phenomena such as stimulus discrimination and generalization, effects of schedules of reinforcement upon responding, the partial reinforcement extinction effect, appetitive and aversive control of behavior, etc., are discussed. Additionally, various human learning paradigms and relevant memory systems are presented.
Prerequisite PY 129. 3 hours credit

PY 244. Cognitive Psychology**B**

Examines the mental operations involved in information processing at the conceptual level. Topics include pattern recognition and attention, memory structures and processes, imagery, the interaction of language and thought, the basic thought processes of problem-solving, reasoning and decision-making, and cognitive development.
Prerequisite PY 129. 3 hours credit

PY 245. Social Psychology**A**

Introduction to interpersonal behavior. Topics include attraction, prejudice and discrimination, attitudes, social influence, aggression, social perception, and group behavior. prerequisite PY 129.
3 hours credit

PY 246. Personality**A**

Biological and social determinants of personality and its development. Methods of studying personality.
Prerequisite PY 129. 3 hours credit

PY 247. Health Psychology**B**

Explores the role of psychological factors in the prevention of illness and maintenance of good health, the treatment of already existing illness, and the recovery from or adjustment to ongoing illness.
Prerequisite PY 129. 3 hours credit

PY 266. Introduction to Freudian Theory**C**

Introduction to Freudian theory and data using Freud's lectures. Both supporting and contradictory evidence is presented. 3 hours credit

PY 273. States of Consciousness**A**

Scientific overview of "ordinary consciousness" and other states of consciousness including sleep and dreams, meditation, biofeedback, hypnosis, drug-induced states, and parapsychology. The potentials, limitations, and dangers of these various states of consciousness are considered. 3 hours credit

PY 276. Human Sexuality**B**

Introduction to theoretical explanations of empirical evidence regarding human sexual behavior. Consideration of reproductive anatomy and physiology; sexually transmitted diseases; sexual

attitudes and behaviors throughout the life cycle; contraception; social issues related to sexuality; sexual dysfunctions; and communication in intimate relationships.

prerequisites PY 129 and sophomore standing. 3 hours credit

PY 286. Gender Differences

C

Survey of physical, social-emotional, and cognitive sex differences revealed in research data and manifested in cultural stereotypes. Theoretical explanations for origins of these differences. Emphasis throughout on critical analysis of the data. Prerequisite PY 129. 3 hours credit

PY 287. Sport Psychology

C

An introduction to the basic concepts, principles, and techniques employed in the field of sport psychology. Major topics include research methods, behavioral principles, personality and assessment, the social psychology of sport, the coach, exercise psychology, youth sport, the female athlete, the minority athlete and ethical issues. Prerequisite PY 129. 3 hours credit

PY 289. Lifespan Human Development

B

Survey of human life cycle, covering physical, mental, personality, and social development taking place during different periods (infancy, childhood, adolescence, adulthood). Attention to developmental issues and particular processes operating within and between specific periods (e.g, marriage, parenthood, career, death, and bereavement). Prerequisite PY 129. 3 hours credit

PY 300. Intermediate Statistics

D

Application of statistical concepts to experimental design in psychological research. Prerequisite PY 200 or equivalent. 3 hours credit

PY 317. Tests and Measurements

B

Introduction to the principles of testing including reliability and validity. The nature and application of different types of tests (measures of achievement, aptitude, intelligence, personality, and interests. are discussed. Both occupational and educational, testing are covered. prerequisite PY 129 and 200 (or equivalent). 3 hours credit

PY 339. Humanistic Psychology

C

Evaluation of contributions of existential, phenomenological, and classical humanistic views. Place of humanistic psychology among existing psychological systems. prerequisite Six hours of psychology. 3 hours credit

PY 342. Perception

B

An investigation of the mental operations involved in the process of obtaining information from one's everyday environment and constructing the psychological representations that form the basis of the capacity to adapt to that environment. Topics include the perception of space, motion, and form; perceptual constancies; perceptual organization; attention and search; learning and development. Prerequisite PY 129. 3 hours credit

PY 347. Industrial/Organizational Psychology

A

Examination of the dynamic nature of interpersonal behavior within an organizational context. Topics include motivation, group processes, leadership, stress, decision-making, and communication. Personnel matters including selection, training, and appraisal are discussed. Prerequisite PY 129. 3 hours credit

PY 349. Child Psychology

B

A review of research findings and normative data pertaining to children in such areas as perception, learning, cognition, and personality. Prerequisite PY 129. 3 hours credit

PY 351. Physiological Psychology

A

Study of physiological basis of behavior. Prerequisite PY 129. 3 hours credit

PY 355. Group Dynamics

B

Analysis and evaluation of concepts, hypotheses, techniques, and research in group dynamics. prerequisite PY 245 or SO 204. 3 hours credit

PY 356. Abnormal Psychology**B**

Introduction to behavior disorders including psychoses, neuroses, mental deficiencies, and character disorders. *Prerequisite* PY 246. 3 hours credit

PY 366. Psychology of Adulthood**D**

Examination of data and theory having to do with psychological issues of importance in adult development (perception, cognition, identity, intimacy, socialization, life phases, etc.), and implications of these for adults and those working with them. *Prerequisite* PY 129 (246 recommended). 3 hours credit

PY 369. Psychology of Children's Literature**B**

Considers how children's literature reflects truths of the child's world, how it relates to the child and the child's needs, and how it enhances the child's experience and fosters development of personality, cognition, and social skills. *Prerequisite* PY 129. 3 hours credit

PY 370. Cross-Cultural Psychology**B**

An introduction to psychological theory and research from the perspective of other cultures. Investigates the origins of psychological thought and overviews the development of the discipline in various historical and political contexts. Focus will vary from semester to semester depending upon instructor. *Prerequisite* PY 129. 3 hours credit

PY 377. Psychology of War and Peace**B**

Application of psychological principles and concepts to international relations. *Prerequisite* PY 129 and junior standing. (PY 245, 246, or SO 204, recommended). 3 hours credit

PY 379. Child Psychopathology**C**

Developmental approach to the disorders of childhood. Topics include the short-term and long-term consequences of inadequate attainment of developmental milestones and the developmental course of children at risk for psychological disorders, particularly schizophrenia and depression. Genetic risk, familial factors, and precursors of the disorders are discussed. *Prerequisites* PY 129 and either PY 349, 356, or ED 225. 3 hours credit

PY 385. Psychology in the Bible**D**

Psychological analysis of important personalities and events in the Old Testament. *Prerequisite* PY 245 or 246. 3 hours credit

PY 429. History and Systems of Psychology**B**

Historical study of psychology focusing on successive schools of thought that have had major influence on the discipline. *Prerequisite* PY 210 and senior standing. 3 hours credit

PY 439. Senior Honors Seminar**B**

In-depth analysis of selected topics. *Prerequisites* Invitation by department. PY 210 and senior standing. 3 hours credit

PY 441. Seminar in Psycho physiology**D**

Advanced concepts of psychophysiology including problems of methodology, instrumentation, and current research in such areas as emotion, biofeedback, activation. *Prerequisite* PY 351. 3 hours credit

PY 443. Theories of Learning**B**

A variety of approaches to learning theory including but not limited to functionalism, behaviorism and cognitive analysis will be covered. Current status and trends will be emphasized. *Prerequisite* Twelve hours of psychology including PY 210 and PY 243. 3 hours credit

PY 444. Psychology of Language**B**

The study of human language and thought processes. The course covers the following topics: speech perception, the role of memory systems in processing sentences and storing knowledge, the development of the language rule system in children, the influence of mother's language on the acquisition process, and second language acquisition. *Prerequisite* PY 129. 3 hours credit

PY 447. Introduction to Counseling**A**

Introduction to counseling theory and techniques. Special emphasis given to the communication process involved in the counseling interview. *Prerequisite* PY 246. 3 hours credit

PY 456. Theories of Personality**B**

Systematic analysis of the works of major contributors to personality theory. *Prerequisite* Twelve hours of psychology including PY 210 and PY 246. 3 hours credit

PY 457. Practicum in Crisis Intervention**A**

Through role playing and group interaction the student is trained to deal with people in crisis situations. Actual phone counseling and ongoing training follow initial training sessions. *prerequisite* Permission of instructor, and 9 hours of psychology. 3 hours credit

PY 458. Practicum in Teaching**A**

With supervision, teaching assistants (TAs) experience various aspects of teaching including class preparation, leading discussions, and student evaluation. Each TA is responsible for sections of PY 130 Psychology Laboratory. *Prerequisite* PY 210 and permission of instructor. 3 hours credit

PY 479. Internship in Psychology**A**

A number of internships are available to psychology students. These vary in setting but all involve work under supervision in a community setting. Students should see the department internship director for a description of internships available. *Prerequisites* Vary depending upon setting; permission of internship coordinator. 3 or 6 hours credit

PY 489. Independent Study in Psychology**A**

Individual student research conducted under guidance of selected instructors, with permission of instructor. *Prerequisites* Vary according to project; permission of instructor. 3 hours credit

RECOMBINANT GENE TECHNOLOGY

Office: 203 Jewett Hall

Bruce L. Tomlinson, *Chairperson* Department of Biology

One of the most rapidly growing areas of modern biology is the application of Recombinant Gene Technology (genetic engineering) in solving biological problems. The need for personnel trained in recombinant DNA techniques is presently expanding with the increased use of the techniques in the production of new drugs, industrial chemicals, new plant varieties, food products, energy sources, and pollution-control products. The College at Fredonia's unique program in Recombinant Gene Technology, the first of its type in New York State, provides the student with the necessary skills to enter this exciting area of biotechnology at the level of technician. Techniques presented in the program include DNA and cell cloning, nucleic acid hybridization, gel transfers, and DNA sequencing. The B.S. degree in Recombinant Gene Technology also provides a liberal arts education in the biological sciences as a basis for graduate work in molecular biology.

A typical program taken by a Recombinant Gene Technology major is outlined below. Course descriptions may be found under biology. The first two years of the program consist of a core of courses taken by most students interested in the biological sciences. In addition, a senior-level capstone course in Recombinant Gene Technology provides the student with a sequence of experiments that includes a comprehensive selection of the techniques employed in genetic engineering.

Required Courses:

Bachelor of Science degree in Recombinant Gene Technology

BI 131-132	Principles of Biology & Lab	4
BI 231-232	General Botany & Lab	4
BI 234-235	General Zoology & Lab	4
BI 333-334	Biochemistry & Lab	4
BI 338	Microbiology	3
BI 340	Cell & Subcellular Biology	3
BI 431	Senior Seminar	
	or	1
BI 432	Senior Seminar	
BI 433	Genetics	3
BI 435	Developmental Biology	3
BI 460	Recombinant Gene Technology	3

Plus 9 additional hours of biology electives at the 300-400 level 9
41

CH 115-116	General Chemistry I & II and CH 125-126 (Labs)	8
CH 215-216	Organic Chemistry I & II and CH 225-226 (Labs)	8
PH 121-122	College Physics I & II and PH 123-124 (Labs)	
	or	8
PH 230-231	General Physics I & II and PH 232-233 (Labs)	
MA 120-121	Survey of Calculus I & II	6
	or	
MA 122-123	University Calculus I & II	8
CS 104	Intro. to Microcomputers Computing	
	or	3
CS 105	Introduction to Computing	

33 or 35

Typical Four-Year Program: Bachelor of Science degree in Recombinant Gene Technology. The following list does not include elective General College Program courses.

First Year

FALL

BI 131-132 General Biology & Lab

CH 115-125 General Chemistry I & Lab
 MA 120 Survey of Calculus I

SPRING

BI 231-232 General Botany & Lab or
 BI 234-235 General Zoology & Lab
 CH 116-126 General Chemistry II & Lab
 MA 121 Survey of Calculus II

Second Year**FALL**

BI 231-232 General Botany & Lab or
 BI 234-235 General Zoology & Lab
 CH 215-225 Organic Chemistry I & Lab
 PH 121-123 College Physics I & Lab

SPRING

CH 216-226 Organic Chemistry II & Lab
 PH 122-124 College Physics II & Lab
 CS 105 Introduction to Computing

Third, Year**FALL**

BI 333-334 Biochemistry & Lab
 BI 433 Genetics

SPRING

BI 338 Microbiology
 BI 340 Cell & Subcellular Biology

Fourth Year**FALL**

BI 435 Developmental Biology
 BI 440 Undergraduate Research
 BI 461 Immunology
 BI 504 Nucleic Acids

SPRING

BI 432 Senior Seminar
 BI 441 Undergraduate Research
 BI 460 Recombinant Gene
 Technology

The Recombinant Gene Technology major is strongly advised to plan on at least one year of Undergraduate Research (BI 440-441) in the area of Molecular Biology. In addition to the electives listed above in the four-year program, courses in enzymology, hormone mechanisms, ecology, plant physiology, mammalian physiology, cell regulation, and graduate biochemistry are strongly recommended.

(Social Work, see Special Studies, pg. 168)

SOCIOLOGY/ ANTHROPOLOGY

Office: W363 Thompson Hall Jerry D. Rose, *Chairperson*

The Department of Sociology/Anthropology offers a major in the discipline of Sociology and minors in the fields of Anthropology and Sociology.

Sociology provides valuable insights into the human experience and assists in important ways in understanding human behavior.

Sociologists are interested in understanding how people live and interact with one another, in learning how human groups of all kinds (families, sports teams, religious groups, crowds, large bureaucratic organizations, etc.) operate in a wide variety of situations from the routine and everyday to the unusual and extraordinary, and in assessing and evaluating how societies work. Sociology explores assumptions about people, their groups, and society. It looks at what works well and it carefully analyzes those areas in which there are problems and possible solutions. In particular, the Sociology program at the College at Fredonia has special strengths in areas related to medical studies, aging, criminal justice, and social work.

Anthropology provides valuable insights into the human experience and assists in important ways in understanding human behavior. Anthropologists study peoples and cultures, both past and present. Their perspective rightfully has been called the most humanistic of the sciences and the most scientific of the humanities. Anthropology is an integrating academic discipline, consisting of four major divisions: physical, archaeological, linguistic, and sociocultural.

Majors in Sociology develop skills in evaluating research and in conducting research through course work dealing with theory, methods, and statistics. That knowledge and those skills can be applied in a wide variety of occupations and professions. Majors have the opportunity to prepare for graduate education in sociology, for careers in law, in various social and human service areas, and in a wide variety of occupations involving work with and for people (personnel administration, community relations, public relations, labor and industrial relations, health services, etc.). Often majors in Sociology work toward specific careers by declaring one or more of the concentrations in the College at Fredonia's careers in Public Service program. Most of the concentrations offer valuable internship experiences. (See pages 164-168.)

The department itself offers interested, qualified students a chance to work for credit on research efforts currently being developed and carried out by its faculty. In addition, students are assisted to undertake independent study projects of their own in areas of particular interest.

Recent graduates have successfully completed graduate programs in fields such as sociology, social work, public administration, and public health at a number of major universities. They are pursuing their careers in those areas. Many others have found a wide range of employment opportunities in criminal justice (police departments, family court, corrections, probation and parole work, etc.); in social work (with youth, alcoholics, the mentally ill, the retarded, the disabled, and the aged); in health services management; in both the public and the private sector using research skills including census work and advertising and marketing work; and in business in positions such as personnel work, retail management, and sales.

The Department of Sociology cooperates in the Cooperative Agriculture and Cooperative Engineering Programs. (See pages 46 and 82 respectively.)

Joint B.A./M.B.A. Degree Program

The department has entered into a formal agreement with the School of Management at the State University at Buffalo which will allow Fredonia students to matriculate into an accelerated B.A./M.B.A. program. In this 3/2 program, a student will complete three years of undergraduate course work at Fredonia. These classes will fulfill all GCP and Sociology major requirements as well as provide a foundation for graduate work in the M.B.A. program at the State University at Buffalo. Students who successfully complete the foundation courses and meet all other prescribed admissions standards will be guaranteed admission into this two year program. If this 3/2 program

is of interest, students should contact the department chairperson early in their freshman year, as completion of this program involves careful course selection.

Student Honors and Awards

Alpha Kappa Delta: Sociology majors who maintain a minimum 3.0 grade point average in their major and overall will be eligible for induction into Alpha Kappa Delta, the International Sociology Honorary Society.

Departmental Awards: The department recognizes a graduating senior who has made a significant contribution to the college, the community, and to other students by conveying upon her or him the department's Outstanding Senior Award. In addition, an outstanding graduate who has gone on to make significant contributions in his or her chosen profession is selected to receive the department's Alumni Achievement Award.

Sociology/Anthropology Club: This student organization provides opportunities for majors to interact with one another and with faculty outside the classroom. Annually, the club has a number of activities and events which are of interest to students. The club also makes important contributions to a variety of public service projects.

For Major in Sociology (B.A. Degree)

Core Program:

Thirty-three hours in sociology including:

		Hrs.
SO 116	Introduction to Sociology	3
SO 200	Statistics for Sociologists (or equivalent)	3
SO 202	Social Analysis	3
SO 300	Research Methods	3
SO 302	Sociological Theory	3
AN 115	Introductory Anthropology	3
	Eighteen additional hours in sociology as advised including at least 6 hours from:	18
SO 204	Social Psychology	
SO 301	Growth of Social Thought	
SO 303	Social Class & Inequality	
SO 310	Sociology of Deviant Behavior	
SO 321	Population and Society	
SO 323	The Community	
SO 325	Complex Organizations	

For Minor in Sociology: 18 hours in sociology including SO 116, required. Three courses, for a total of 9 hours, must be taken from the following required and/or core courses: SO 200, 202, 204, 300, 301, 302, 303, 310, 321, 323 and 325. The remaining 6 hours are free electives and may be taken from any of the department's sociology offerings. At least 6 hours must be at the 300 level or above.

For Minor in Anthropology: 18 hours of anthropology including AN 115 (required); the remaining courses to be chosen after consultation with an anthropology faculty member. At least 9 hours must be at the 300 to 400 level.

SO 116. Introductory Sociology

A

The methods, insights, and perspectives of sociology; how sociologists do their work; how individuals are influenced by society and its culture; how people learn to become members of society (the socialization process), and how people interact with others in it. Review of major topics of sociological interest and concern. 3 hours credit

SO 200. Statistics for Sociologists

A

An introduction to the place of statistics in the research process; develops understanding of statistics as a valuable tool in analyzing data. Deals with probability, sampling, tables, graphs, averages, measure of variation, measures of association, tests of significance, and multivariate

statistics. Special emphasis given to analysis of survey data using micro-computers. *Prerequisite* SO 116. 3 hours credit

Note Only one statistics "200" course can be taken for credit.

SO 201. Social Problems

A

Review of the causes, nature, dynamics, and modes of alleviating some major social problems in contemporary U.S. Among the problems which may be reviewed are poverty, deviance, crime and delinquency, discrimination racism, sexism, ageism), ecological-environmental threats, population, as well as problems of vital institutions (familial, medical, political, economic *Prerequisite* SO 116. 3 hours credit

SO 202. Social Analysis

A

Seeks to orient students sociologically toward a broad range of social phenomena in such a way that they can begin systematically to question, analyze, and articulate a sociological point of view on any topic of sociological interest. *prerequisite* SO 116. 3 hours credit

SO 204. Social Psychology

B

The forms of social interaction that relate people to each other in everyday life and the consequences for individuals of their social experiences. Theoretical models applied and evaluated for their explanatory power in illuminating such issues as socialization into roles, attitude formation, development of self concept, conflict resolution, etc *Prerequisite* SO 116. 3 hours credit

SO 205. Understanding People

C

Using biographies, explores how key sociological factors such as age, gender, race, marital status, socio-economic status, occupation, religion and health affect the everyday life of people, their life chances and life choices, their perspectives on themselves and on their world, their values and their beliefs. *prerequisite* SO 116. 3 hours credit

SO 2 10. Introduction to Gerontology

C

An introduction to the field of gerontology and the different approaches taken by the natural and social sciences to the study of the aging process. Research on aging from disciplines such as biology, psychology, sociology, history, political science, and economics is discussed. Provides an overview of how gerontology is used by professionals working with the elderly. 3 hours credit

SO 218. Introduction to Social Work

B

introduction to theoretical and practical foundations of social work. Examination of values, knowledge, and skills underlying a generalist approach to social work. Analysis of role of social workers in such settings as hospitals, schools, mental health agencies, and family and child welfare agencies. *Prerequisite* SO 116. Sophomore standing. *3 hours credit*

SO 250. Selected Topics

C

Special topics in sociology. not covered in detail by regular courses and not offered on a regular basis. *Prerequisite* SO 116. 1-3 hours credit

SO 300. Research Methods

A

A course concerned with knowing ; emphasis is placed on the evaluation of information and the research process conceptualization, design, measurement, and data collections methods of survey, experiment and observation are discussed. *Prerequisite* SO 116. 3 hours credit

SO 301. Growth of Social Thought

D

Critical survey of ideas about society in traditions of both West and East, through the beginning of the 20th century. *Prerequisite* SO 116. 3 hours credit

SO 302. Sociological Theory

A

Critical examination of the modern grounding of sociological theory in the works of Durkheim, Marx, Weber, and Simmel and the emergence of contemporary theoretical orientations such as structural functionalism, conflict theory, symbolic interactionism, phenomenology, and hermeneutics; analysis of the structure of and strategies for applying a selection of theoretical

perspectives; assessment of major controversies surrounding the nature of theory and the varieties of methodological requirements in the social sciences *Prerequisite* SO 116. 3 hours credit

SO 303. Social Class and Inequality**B**

Examines the sources, forms, and consequences of social inequality, with major emphasis on social stratification in the United States. Emphasis on social class, but also includes racial and ethnic stratification, and gender inequality. Also analyses on debate over the inevitability of inequality, and examines related issues in social policy *Prerequisite* SO 116. 3 hours credit

SO 304. World Views**C**

Sociological insight using examples from a wide range of contemporary societies, how they see themselves and others, and into the lives and perspectives of their peoples. Focus on development, on fundamental values and basic institutions, and on the problems and challenges they face. *Prerequisite* SO 116. 3 hours credit

SO 307. Sociology of Journalism**D**

Reportage and communication of events and ideas as outcomes of the social order. Journalism as social structure and as occupation. Language, news, and the construction of reality *Prerequisite* SO 116. 3 hours credit

SO 310. Sociology of Deviant Behavior**B**

Covers theoretical and empirical issues in the sociological understanding of deviant behavior. Research studies of several forms of career deviance analyzed and critiqued suicide, skid row, addiction, prostitution, homosexuality, mental illness, physical handicaps *Prerequisite* SO 116. 3 hours credit

SO 311. Sociology of Addiction**C**

An examination of all that behavior which has come to be identified as addiction including tobacco smoking, alcoholism, substance abuse, eating disorders and gambling. An analysis of competing theories of addiction and treatment. The political, economic and social ramifications of addiction control. *prerequisite* SO 116. 3 hours credit

SO 312. Plagues and Peoples**C**

This course explores the impact of disease on human populations in terms of demographic, cultural and social changes. The rise of health care delivery systems is addressed as a response to epidemics. Examples include the bubonic plague of the 14th and 17th centuries, cholera, influenza, polio and AIDS. *Prerequisite* SO 116. 3 hours credit

SO 315. Environmental Sociology**D**

An examination of the nature of society's environmental problems and their links to its institutional structure (dominant cultural themes, political and economic bases). Problems can include land use, energy, food, transportation, air pollution, water pollution, conservation, waste disposal (solid, radioactive, toxic) and population dynamics *Prerequisite* SO 116. 3 hours credit

SO 316. Minority Groups**B**

Study of discrimination against ethnic groups (race, religion, national origins); major groupings within the U. S. such as blacks, Jews, Native Americans, Hispanics, and Asian Americans. Ethnic relations in countries throughout the world, with an emphasis on the impact of colonialism on ethnic relations. *Prerequisite* SO 116. 3 hours credit

SO 317. Sociology of Religion**D**

Religion in sociological perspective the social functions of religion, its interaction with other social institutions and with social change processes and its organizational structure in America and other societies. *prerequisite* SO 116. 3 hours credit

SO 318. Collective Behavior**C**

Study of unusual, dramatic, or extraordinary social behavior and of processes influencing that behavior. Such typical forms of collective behavior as disaster behavior, protest, repressive outbreaks, and revivalism. *prerequisite* SO 116. 3 hours credit

SO 3 19. Social Change and the Future**D**

A sociological perspective on the future including the nature and impact of population growth and the emergence and impact of new problems among the industrialized nations and the Third World nations. Prospects for developing a long-range planning view of the future which will allow people to cope effectively with the rapid pace of social change. *Prerequisite* SO 116. 3 hours credit

SO 320. Family Sociology**C**

Overview of sociological perspectives on the family; emphasis on current state of the family in society. Topics include premarital sexual behavior and attitudes; dynamics of mate selection; marriage as an institution; marriage and sex roles; family dynamics (parenthood, childhood, family politics, violence in the family, divorce, etc.); marriage and the family as a subjective reality; alternative family forms; and the future of the family. Relationship between family and other social institutions. *Prerequisite* SO 116. 3 hours credit

SO 321. Population and Society**D**

Basic introduction to causes and consequences of such demographic processes as fertility, mortality, and migration, focusing on population situation in America. Examination of issues such as adequacy of world food supply, relationship of population growth to environmental problems (pollution, resources, etc.), and effect of population density on social behavior illustrates role that population-related factors play in contemporary "social problems. *Prerequisite* SO 116. 3 hours credit

SO 322. Work and Society**B**

Work as an essential form of human behavior; division of labor, labor force, techniques of occupational analysis; impact of work on individual, professions; careers; work as a social problem. *Prerequisite* SO 116. 3 hours credit

SO 323. The Community**B**

Comparative nature of rural, urban, and suburban communities. Emphasis on difficulties in getting to roots of many community problems and nature of political process in dealing with these problems. *Prerequisite* SO 116. 3 hours credit

SO 324. Urban Sociology**D**

Urbanization and its consequences for people in metropolitan areas throughout the world. Process of urbanization, metropolitan social organization, ethnicity, and lifestyle; community power structure, urban problems, and cities in developing nations. *Prerequisite* SO 116. 3 hours credit

SO 325. Complex Organizations**B**

Social structure and social processes of formal organizations. Behavior within Organizations. Comparison of major types of organizations educational, military, business-industrial, hospital, and governmental. *Prerequisite* SO 116. 3 hours credit

SO 326. Human Relations in the Workplace**D**

Social values, work and the allocation of work roles. Management strategy and tactics in structuring and coordinating work roles in organizations. Work environments, work cultures and problematics of the work place. Analysis of case studies serves as a framework for course content. *Prerequisite* SO 116. 3 hours credit

SO 328. Social Welfare Systems**D**

Examination of the history, philosophy, and operation of the social welfare system in the United States and analysis of current issues and trends. *Prerequisite* SO 116. 3 hours credit

SO 329. Industrial Sociology**C**

Perspectives on industrial organizations and societies. Topics include process of industrialization, cultural context of industry, social structure of industry, change to post-industrial society; relationships of industry to other social institutions such as politics, family, community, and religion. *Prerequisite* SO 116. 3 hours credit

SO 330. Sociology of Education**D**

Education as formal socialization in values, expectations, and skills required by a particular social structure; interaction between the school and other social institutions; school as a social system; the teacher; higher education. *Prerequisite* SO 116. 3 hours credit

SO 335. Sociology of Sport**C**

Introduction to sport as a social institution; social function of sport; sport and culture, schools, and socialization; sport and women, race, and ethnic groups; sport and mass media; sport and stratification and social change. *Prerequisite* SO 116. 3 hours credit

SO 336. Sociology of Emotions**C**

An examination of the cultural assumptions, institutional structures, interactional patterns, and modes of self-understanding that shape such emotions as jealousy, shame, anger, boredom, trust, joy, envy, satisfaction, etc.
prerequisite SO 116. 3 hours credit

SO 337. Sociology of Aging**C**

In-depth overview of social gerontology, focusing on aging in modern societies. How major institutional changes affect the aged. Review of major problems status as a minority, retirement adjustment, income, social attitude towards the aged, kinship and other roles. *Prerequisite* SO 116. 3 hours credit

SO 338. Sociology of Death and Dying**C**

Examines the growing body of sociological and social psychological literature on humankind's last major status passage. Institutions which structure death are considered and the processes accompanying dying are investigated. Cross-cultural as well as American death phenomena are included. *Prerequisite* SO 116. 3 hours credit

SO 339. Aging Policies and Programs**D**

Detailed examination of the major public programs and policies affecting the elderly in America. Analyzes the evolution of programs in a number of areas such as health care, economic support, housing, and transportation, and investigates their impact on the elderly and society. Explores in depth the federal/state/local network of services for the elderly and investigates the role such services play in the lives of the elderly. *prerequisite* SO 116 (SO 210 or SO 337 recommended) 3 hours credit

SO 340. Sociology of Health and Health Care**B**

Examines the social psychology of health and illness, social epidemiology and the social correlates of illness, and the organization of health care, including the doctor-patient relationship, the health professionals, and health institutions. *Prerequisite* SO 116. 3 hours credit

SO 343. Health Systems and Policy**B**

Examination of major functional areas of the health care delivery system, including primary care, acute care, long-term care, and mental health services; the role of the various institutions and groups involved in the organization and delivery of health services; and of administrative, legal, and financial concepts and issues related to planning and management of health services. *Prerequisite* SO 116. 3 hours credit

SO 346. Mental Health and Society**B**

A study of the role of social factors in the definition, development, and distribution of mental illness, and of social responses to problems of mental health, with primary emphasis on understanding the role of various groups and institutions in prevention, diagnosis, treatment, and rehabilitation.
Prerequisite SO 116. 3 hours credit

SO 350. Special Topics**D**

Special topics in sociology not covered in detail by regular courses and not offered on a regular basis. *Prerequisite* SO 116. 3 hours credit

SO 360. Criminal Justice System**C**

Comprehensive study of structure and functioning of the criminal justice system; its historical, philosophical, and political origins; comprehensive review of the system including the law, police, the courts, and corrections. *Prerequisite* SO 116. 3 hours credit

SO 362. Criminology**B**

An investigation of the nature and causes of crime. Issues covered include the police, criminal law, criminal court system, epidemiology of crime, and criminal "careers." *Prerequisite* SO 116. 3 hours credit

SO 363. Victimology**C**

This course is an introduction to the study of victim-criminal relationships. Issues of conceptual and empirical interest that are covered include history of the status of victims of crime in Western criminal justice systems; sociological characteristics of victims; victim-risk; victim precipitated crimes; and victim compensation programs. *Prerequisite* SO 116. 3 hours credit

SO 364. Juvenile Delinquency**B**

An examination of delinquent behavior and its distribution in society. Topical issues discussed include the juvenile justice system, theories of delinquency, and methods of social control of this behavior. *Prerequisite* SO 116. 3 hours credit

SO 366. Sociology Of Corrections**C**

A study of societal reactions to crime from an historical, socio-political, social psychological and economic perspective. The functions of retribution, rehabilitation, incapacitation and deterrence are examined. *Prerequisite* SO 116. 3 hours credit

SO 440. Social Work Seminar**B**

Group discussions designed to coordinate and integrate values, knowledge, and skills associated with classroom and internship experiences. Analysis of current issues in social work. To be taken concurrently with Social Work Placement. *1 hour credit*

SO 470. Directed Study**A**

One to 3 hours of credit for individualized study under guidance of a member of the faculty. *prerequisite* Approval of instructor and department chairperson. *1-3 hours credit*

SO 471. Field Research**A**

One to 3 hours credit assisting faculty members in research. May involve content analysis, interviewing, data processing, and gaining familiarity with computer operations. *prerequisite* Approval of instructor and department chairperson. *1-3 hours credit*

SO 472. Social Work Placement**B**

Supervised internship involving eight hours/week working in local social service organization, providing students with opportunity to observe and participate in day-to-day activities of an agency, develop and practice beginning-level social work skills, and arrive at appraisal of social work profession. *prerequisites* SO 218; permission of instructor. *3 hours credit*

SO 473. Criminal Justice Intern**A**

Supervised placement in legal and/or criminal justice work settings. On a limited basis, opportunity to observe and engage in various facets of criminal justice system. *Prerequisite* Permission of instructor. 3 hours credit

SO 477. Health Administration Intern**A**

Supervised internship in a health related agency. Internships provide students opportunities to observe and participate in the day-to-day activities involved in the administration of hospitals, nursing homes, and health care planning organizations, and in governmental administration of health programs. *prerequisite* Permission of instructor. *3-6 hours credit*

SO 479. Social Gerontology Intern**A**

Supervised internship in a private or public agency that works directly with the elderly or is involved in policy and/or planning dealing with the aged. Provides students with the opportunity to

participate in day-to-day activities of an agency and to develop skills useful for a career in gerontology. prerequisite Permission of instructor. 3 hours credit

Anthropology Courses

AN 115. Introductory Anthropology

A

An introduction to the basic concepts and findings of anthropology's four major subdivisions physical anthropology, archaeology, linguistics, and cultural anthropology. Traces human biological and cultural evolution. Discusses and analyzes various cultural systems. 3 hours credit

AN 120. Mysteries of the Past

D

Discusses various "mysteries" (e.g. human origins, ancient civilization, astrology, pyramids, UFOs, witches) and analyzes the arguments relating to them. The course examines the nature of evidence and belief in such phenomena from a scientific, anthropological perspective. 3 hours credit

AN 201. Anthropology of Human Problems

C

Examines contemporary problems from the holistic, cross-cultural perspective of anthropology. Topics vary but may include international conflict, human rights, environmental degradation, Third World development, etc. *Prerequisite* AN 115. 3 hours credit

AN 210. Physical Anthropology

C

Anthropological view of biological aspects of humans; evolutionary orientation includes human genetics and morphology, primate fossil record, and racial varieties. *Prerequisite* AN 115. 3 hours credit

AN 211. Archaeology

C

Survey of both prehistoric and historical archaeology, including history of the discipline, theories and methods, techniques analysis and synthesis of findings. *Prerequisite* AN 115. 3 hours credit

AN 219. Cultural Anthropology

B

Major cultural institutions (techno-economics, social organization, politics, and ideology) discussed and illustrated with ethnographic examples. Central theme of course (e.g., peasants, islanders, modernization) and cultures studied vary each term. *Prerequisite* AN 115. 3 hours credit

AN 300. Sex and Gender

D

Description and analysis of sex and gender roles and relationships from a variety of societies at different levels of socio-cultural complexity. *Prerequisite* AN 115. 3 hours credit

AN 301. Plagues And Peoples

C

This course explores the impact of disease on human populations in terms of demographic, cultural and social changes. The rise of health care delivery systems is addressed as a response to epidemics. Examples include the bubonic plague of the 14th and 17th centuries, cholera, influenza, polio and AIDS. *Prerequisite* AN 115. 3 hours credit

AN 311. Anthropology of the Supernatural

C

Survey of various socioculturally-relative belief systems, both "civilized" and "primitive". Topics include animism, totemism, cults, cannibalism, sacrifice, sacred animals, funeral ceremonialism, religious art and monuments, hallucinogens, shamanism, witchcraft, and fairies. *Prerequisite* AN 115. 3 hours credit

AN 315. Urban Anthropology

C

A comparative course dealing with urbanization and urbanism. Various urban types discussed within their larger sociocultural contexts. Urban segments (e.g., ethnic enclaves, occupational groups) discussed in detail. The course includes both major concepts and case studies. *Prerequisite* AN 115. 3 hours credit

AN 321. Anthropology of Indian America

C

Survey of past and present Amerindian peoples and cultures of North America. Both aboriginal lifeways and responses to White presence are emphasized for each culture-area. *Prerequisite* AN 115. 3 hours credit

AN 322. Anthropology of Africa**C**

Survey course dealing with evolution of culture in Africa. Examination of range of variation of traditional African cultures and factors currently modifying them. *Prerequisite* AN 115. 3 hours credit

AN 324. Anthropology of the Caribbean**C**

Survey of the prehistory, history, and present day nature of the various cultures of the Caribbean region. Special emphasis placed upon economic life, family patterns, political movements, and expressive culture. *Prerequisite* AN 115. 3 hours credit

AN 330. Comparative Law and Politics**C**

Examination of evolution of socio-political complexity and leadership. Special emphasis on mechanisms, formal and informal, for the settlement of disputes (e.g., legal systems, feuding, warfare). *Prerequisite* AN 115. 3 hours credit

AN 331. Anthropology of Utopias**C**

An examination of the background conditions producing utopias and an historical/ethnographic analysis of selected utopian ventures (e.g. Amish, Shakers, Counterculture Communes) *Prerequisite* AN 115. 3 hours credit

AN 370. Seminar in Anthropology**D**

Focuses on particular methodological, theoretical, topical, or area concerns within the field of anthropology. Orientation lectures, review of literature, seminar discussions. *prerequisite* AN 115. 3 hours credit

AN 470. Directed Study**A**

Reading and research course intended primarily for upper-level students. Deals with specialized concerns not covered in regular courses. *prerequisite* Permission of the instructor and chairperson. 1-3 hours credit

AN 473. Museum Internship**D**

Supervised placement in a museum. This allows a limited number of advanced anthropology students to work with museum staff members on research, curation, and education projects. *prerequisite* Permission of instructor. 3 hours credit

AN 475. Theory Seminar in Anthropology**B**

Surveys the major anthropological theorists' most influential works. Discusses their ideas within the context of their cultures, fieldwork experiences, etc. *Prerequisite* Permission of instructor. 3 hours credit

AN 476. Methods Seminar in Anthropology**B**

An examination of the basic methods of ethnohistory, ethnography, and cross-cultural comparisons. Applications and limitations of each methodology will be examined. *prerequisite* Permission of instructor. 3 hours credit

(Spanish, see Foreign Languages and Literatures; Special Education, see Special Studies)

SPECIAL STUDIES

The Special Studies department offers interdisciplinary degree programs and concentrations. The degree program constitutes a student's major; the concentrations are interdisciplinary minors that may be taken by students majoring in any program in the college.

The *Special Studies degree program* allows students the greatest possible flexibility in meeting their educational goals. In this program, students design their own interdisciplinary fields of studies leading to the degree of Bachelor of Arts or Bachelor of Science in Special Studies (B.A.S.S. or B.S.S.S.). In a few areas, model interdisciplinary programs exist: these are the majors in American Studies, Environmental Science, Music Business, and Special Education (a cooperative program). In other areas, students select their own combinations of courses and set them forth in formal proposals composed with the help of their advisors and reviewed by faculty committees.

The Special Studies proposal must include: (1) a clear statement of educational objectives; (2) an explanation as to why these objectives are best met through the proposed program rather than through a 'regular departmental major; (3) a description of the proposed interdisciplinary major, containing at least 36 credits; (4) a minimum of 36 hours of 300 and 400-level courses; (5) proof that the proposed program meets General College Program requirements and includes enough liberal arts courses for the specified degree. Special Studies students must submit their proposals before they have completed 75 credit hours. All work on such proposals must be coordinated through the Dean for Liberal Studies through whom proposals are initiated and in whom resides the authority for approval.

A *Special Studies concentration* is a group of six to nine courses centering on a topic or problem studied from many different points of view. Each concentration may be studied in combination with any major. At present, concentrations are available in American Studies; Arts Administration; Biomedical Research Technology; Dance; Environmental Science; Health Services Administration; Latin American Studies; Law, Justice, and Society; Gerontology; Social Work; and other areas (see detailed listings below).

MODEL MAJOR PROGRAMS

American Studies

James R. Huffman, *Coordinator*

American Studies is an interdisciplinary examination of American culture from many different perspectives. This broad liberal arts major is designed to give students a more complete understanding of American culture, a useful preparation for many careers in America.

For Major in American Studies:

1. Fifteen hours in exploratory and preparatory courses selected from:
AM 200 Intro. to Popular Culture EN 296 Sex, Violence & Racism HY 338,339 U.S. Thought & Culture or other courses listed in the *Course Offerings Bulletin* under American Studies.
2. Thirty-six hours from courses in the following areas: art and architecture; communications and mass media; economics; English; environmental sciences; history; law, justice, and society; philosophy; political science; psychology; and sociology/anthropology, distributed as follows: 18 hours in each of two areas or 12 hours in each of three areas.
3. Three hours in capstone seminar AM 400

Total hours required: 54

Those desiring certification for secondary teaching should see the coordinator.

Environmental Sciences

Thomas J. Janik, *Coordinator*

As the planet gets more crowded and greater amounts of resources are used, and as greater environmental hazards arise, needs to wisely manage and often restore-the environment will expand. Career opportunities for environmental scientists are increasing and will continue to do

so. Possible careers include management of air and water supply and quality, hazardous waste management, fishery and wildlife biology, and environmental and community planning.

The major in environmental sciences integrates those principles of natural and social sciences that form a foundation for understanding human interaction with the natural environment. In order to gain insight into environmental affairs, an interdisciplinary program is necessary and can be achieved by combining courses in any two of the following specialty areas: Biology, chemistry, geosciences and social science. Students are expected to master introductory mathematics and chemistry, and skills such as technical writing, public speaking and use of computers and statistics. Students bring their understanding to a focus by demonstrating the ability to conduct independent work through an internship or research.

Requirements for the B.S.S.S. degree in Environmental Sciences

<i>A. Core Requirements</i>	<i>Hrs.</i>
1. Majors must take two of the following courses: BI 115 Environmental Biology GS 105 Encounter with Earth PS 121 American Public Policy	6
2. Majors must take MA 120 or 122 Survey of Calculus I or University Calculus I CH 115/125 General Chemistry I Lecture and Laboratory CH 116/126 General Chemistry II Lecture and Laboratory PH 121/123 College Physics 1 and II	3-4 4 4 4
3. Majors must demonstrate the ability to conduct independent work either by completing an internship or undergraduate research in one of the disciplines listed in Part B, <i>Specialty Areas</i> .	3 24-25

B. Specialty Areas

Majors must fulfill the requirements in two of the following four areas:

1. Biology BI 131/132 Principles of Biology and Laboratory or BI 111 Introduction to Biology BI 231/232 General Botany Lecture and Laboratory BI 234/235 General Zoology Lecture and Laboratory BI 330/331 Introductory Ecology Lecture and Laboratory	3-4 4 4 4 4
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Plus 6 additional hours at the 300 or 400 level, as advised. Appropriate courses include BI 341, 343, 351, 420, 422, 424, 457. The following courses cannot be counted: BI 440, 458.

21-22

2. Chemistry CH 215/225 Organic Chemistry I and Laboratory CH 216/226 Organic Chemistry II and Laboratory CH 290 Introduction to Research	4 4 1
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Plus 7 hours at the 300 level or above. Appropriate courses include CH 317/327, 318/328, 473. The following courses cannot be counted: CH 371-372, and 460.

16

3. Geosciences GS 110 General Geology or GS 165 Physical Geology GS 120 Map Reading and Interpretation GS 130 Mineral, Rock and Fossil Identification	3 1 1
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Plus a 3-hour elective at the 100 or 200 level, as advised 3

Plus 16 credits at the 300 level or above, as advised. Appropriate courses fall into two groups: geologic resources (GS 230, 300, 340, 350, 440,450,460) and geotechnology (GS 310, 320, 330, 335, 370, 450). GS 230 can be used to fulfill this requirement. The following courses cannot be counted: GS 445, 455. 24

4. Social Sciences

1. Administrative - one course from (a) and one from (b) 6

(a) PS 311 Public Administration (prerequisite PS 120)
 BA 321 Management and Organizational Behavior(no prerequisite)
 SO 325 Complex Organizations (prerequisite SO 116)

(b) PY 347 Industrial/Organizational Psychology (prerequisite PY 129)
 PL 310 Administrative Ethics (no prerequisite)

2. Problems and Policy Analysis one course from (a) and three from (b) 12

(a) AN 201 Anthropology of Human Problems (prerequisite AN 115)
 AN 211 Archaeology (prerequisite: SO 115)
 SO 201 Social Problems(prerequisite: SO 115)

(b) EC 380 Environmental & Natural Resource Economics (prerequisite: EC 201,202)
 PS 341 Political Economy of Development
 PS 355 International Political Economy
 PS 380 Policy Evaluation
 PS 388 US Political Economy
 SO 321 Population and Society (prerequisite: SO 116)
 SS 205 The Global Future

18

Grand Total

58-71

C. Skills

Majors must demonstrate competence in writing and in two of the following skills: public speaking, using computers, and applying the principles of probability and statistics.

Students can demonstrate competence in writing by fulfilling the requirements of the General College Program; it is recommended that the IB requirement be fulfilled with a course or courses from one of the specialty areas comprising the student's major, e.g., for biology, BI 330-331 for chemistry, CH 225, 226, and 290 for geosciences, GS 240 for social sciences, PL 310

Competence in public speaking can be demonstrated by course work (e.g., CM 105, CM 241) or by completing projects that include public representations.

Depending on the student's career direction, computer competence should include using software packages or programming, or both. Competence in computer use can be demonstrated through courses in computer use (e.g., CS 104, CS 105) or through courses or projects that use computers.

It is recommended that competence in applying the principles of probability and statistics be demonstrated through course work (e.g., BI 457, EC/BA 200, ED 200, MA 200, PY 200, PS 200, SO 200).

Music Business

Harry Jacobson, Coordinator

The Music, Business curriculum serves students interested in a wide range of educational objectives and vocational fields through an interdisciplinary program emphasizing a balance of music, business, and related elective subjects. Although no audition is required, students in Music Business should have a performance medium and a background in music sufficient for success in the core curriculum.

Students might consider majoring in programs such as Communication, Music, or Business Administration with carefully selected electives as alternatives to the Music Business curriculum.

The Music Business curriculum requires a minimum of 58 to 62 hours of interdisciplinary course work in two groups, a core curriculum and an area of specialization.

<i>Group 1:</i>		<i>Hrs.</i>
MU 019-020	Ensemble (four semesters)	0
MU 104	Applied Music Class (two to four semesters)	2-4
MU 115	Music in Western Culture	
	or	3
MU 160	History of Western Music: Middle Ages to 1800	
MU 117-118217-218	Piano Class, Elementary and Intermediate	
	or	4-5
MU 117-118	Piano Class, Elementary and MU 237 Comp Sem.	
MU 121-122	Aural Theory I & II	4
MU 123-124	Written Theory I & II	4
MU 131-132	Conducting I & II	
	or	2-3
	Choices in Jazz or Music History	
XX 200	Statistics	3
EC 201-202	Principles of Macro- Macro economics	6
AC 201-202	Accounting I and II	6
BA 310	Legal Environmental of Business	3
BA 315	Principles of Business Finance	3
BA 321	Management and Organizational Behavior	3
BA 325	Principles of Marketing	3
CS 105	Introduction to Computing	3

Group II

Students in Music Business must complete a minimum of 9 hours from one of the following groups:

Communication/ Public Relations

AR 259	Graphic Design
EN 270	Intro. to Print Media
EN 370	Reporting and Newspaper Writing I
EN 375	Writing for the Professions,

Merchandising/Promoting

BA 411	Marketing Management
BA 442	Consumer Behavior**
BA 444	Advertising and Sales Promotion
BA 446	Sales Management

* Prerequisite: AR 155 or permission of department

** Prerequisite: PY 245 Social Psychology

Special Education

Barbara Mallette, *Coordinator*

Students interested in preparing to work with exceptional children must have an assigned advisor in the education department and may select one of two options:

1. A cooperative program with the State University College at Buffalo which meets the requirements for certification in New York State for special education teachers. This program permits students to enroll at the College at Fredonia for the first two years of their college career, completing courses required of education majors and some course work in the arts and sciences. The third year is spent at the College at Buffalo with emphasis on course work in special education. Students enrolled in the Cooperative Special Education Program return to the College at Fredonia for three semesters. The senior year (semesters seven and eight) involves immersion in professional education courses and practica, one of which takes place within a special education setting. The additional (ninth) semester allows students to

complete General College Program and concentration requirements, as well as requirements for state certification.

Students completing this program will obtain a Bachelor of Science in Special Studies degree from the College at Fredonia. The College at Fredonia will recommend state certification in elementary education. Students will apply for special education certification directly to the State Education Department. Awarding of state certification is contingent upon completion of all requirements.

2. A non-certification program which prepares students for entry into professional careers in community agencies, clinics or residential centers that deal with individuals with handicaps. This noncertification program leads to the Bachelor of Arts in Special Studies degree.

Both programs emphasize the treatment of children with exceptionalities in the least restrictive environment. Undergraduate students learn to respond to children with exceptionalities in ways that facilitate their cognitive, social, physical, and educational development.

Program Description

Option I: Certification Program*

General College Program 36 hours

Area of Concentration (select one) 30 hours

All students must select and complete an area of concentration. These areas are the same as those required of Elementary majors and Early Childhood Education specialists, described under the requirements of the education department, and include: art, English, foreign languages, mathematics, music, sciences, social studies, or behavioral and social sciences. Certain courses are required. An advisor should be consulted.

Professional Education:

		54-60 hours
ED 105	Intro. to Education	3
ED 200	Statistics or PY 200**	3
ED 225	Dev. Psychology	3
ED 250	Introduction to the Exceptional learner	3
ED 305	Multicultural Education	3
ED 349	Educational Psychology	3
ED 351	Classroom Management and Learning Principles	3
ED 355	Learning and Behavioral Disorders of Children**	3
MA 201	Structure of Number Systems (or its equivalent)	3
ED 316-320	Methods Sequence (15 hrs.)	15
ED 420	Student Teaching	15

Plus: the State University College at Buffalo Cooperative Program: 36-45 hours

Option II: Non-certification: Bachelor's degree in Special Studies, Learning and Behavioral Disorders

The requirements are the same as for Option I except: omit ED 316-320, add SH 250. Students remain at Fredonia and complete ED 480-Internship (15 hours), a course in reading instruction, and additional courses as advised.

* New certification requirements are under development by the New York State Education Department. Requirements may be modified.

**May be taken to meet certain General College Program requirements.

CONCENTRATIONS

The following pages list concentrations available as this catalog was going to press. However, new concentrations are added from time to time. Information about new and proposed concentrations may be obtained from the Dean for Liberal Studies.

Students interested in electing a concentration should consult with the dean or an advisor from the appropriate area. Advisors are listed in the dean's office. Concentrations must be formally declared through the Office of the Registrar.

American Studies

Required: 18 hours from the following or other offerings listed under American Studies each semester, as advised.

AM 200	Introduction to Popular Culture
AM 400	Concepts and Methods of American Studies
EN 296	Sex, Violence, & Racism
HY 338	U.S. Thought and Cultures, or other approved offerings in history

AM 200. Introduction to Popular Culture

D

Development of the popular arts and modes of entertainment in America, including mass media; consideration of methods, esthetics, and goals in studying popular culture; relevance of popular culture to study of American values, beliefs and dispositions. 3 hours credit

AM 400. Concepts and Methods of American Studies

D

Development of American Studies as a discipline; current splits in concepts and methods of American Studies; practice in making imaginative connections among elements in American culture and testing these connections by appropriate methods. *Prerequisites* AM 200, EN 296, HY 338, or permission. 3 hours credit

AM 401. Independent Study

D

Intensive individual study of some aspect of American Studies involving production of paper or project. Request for enrollment must be made prior to registration in the form of a written proposal, signed by the supervising faculty member, and forwarded to the Coordinator of American Studies. *Prerequisite* Junior standing. 3 hours credit

AM 402. Senior Project

D

Clearly defined independent project utilizing methods and materials of American Studies, culminating in complete written report and analysis. Variable credit to allow internships, study abroad, and similar field projects. Before registration, student must submit detailed description of proposed project, approved by the faculty member(s) who will supervise it, to American Studies Coordinator with request for specific number of credit hours. *prerequisite* AM 400 or senior standing and permission of coordinator. *3-15 hours credit*

Arts Administration

This concentration combines elements of business and management with programs in the fine arts in preparation for careers in administration of dance, music, and theatre companies; and other cultural non-profit organizations. The required courses for the concentration include:

TA 460	Theatre Org. & Mgmt	3
AC 201	Principles of Accounting I	3
BA 325	Principles of Marketing	3
BA 444	Advertising and Sales Promotion	3
EN 270	Intro. to Print Media	3
EN 370	Reporting & Newspaper Writing I	3

Two of the following six courses:

AA 400	Arts Administration Practicum
BA 310	Legal Envir. of Business
BA 321	Management & Organizational Behavior
BA 442	Consumer Behavior
EN 371	Newspaper Writing II
EN 375	Writing for the Professions

SO 325	Complex Organizations
SO 326	Human Relations in Work Place

Qualified advanced students may also enroll in AA 480 Independent Study or AA 490 Arts Admin. Internship.

AA 400. Arts Administration Practicum

A

Direct working experience serving on the support staff of the Michael C. Rockefeller Arts Center. Individual or team assignments may include public relations, publicity, front-of-house operations, and project planning and implementation. prerequisite: Junior standing and GPA of 2.5 and permission of instructor. *3 hours credit*

Biomedical Research Technology

This concentration consists of an interdisciplinary series of courses designed to expand the research capabilities and employment prospects of students majoring in the sciences. (See also an alternative program under Medical Technology, page 114.) Required courses for the concentration include:

BI 333	Biochemistry	3
BI 336	Mammalian Physiology	3
CH 315	Principles of Physical Chemistry	3
CH 313	Elementary Quantitative Analysis	3
CH 318	Analytical Chemistry II	3
CS 105	Introduction to Computing	3
MA 200	Statistics	3
PH 300	Introduction to Health Physics	3

and one of the following

BI 338	Microbiology
BI 340	Cell and Subcellular Biology
BI 433	Genetics
BI 435	Developmental Biology

Appropriate equivalent courses may be substituted for any of the above.

Dance

Theatre and television have heightened interest in the moving art forms. The dance concentration combines training in music, rhythm, and movement with opportunities to choreograph and costume one's own dances. Especially recommended for students in art, music, theatre, and musical theatre.

A		11 hours:
DA 105	Folk Dance	1
DA 211	Dance II (Prereq. DA III)	2
DA 311	Dance III (Prereq. DA 211)	2
DA 363	Choreography I (Prereq DA 211)	3
DA 364	Choreography II (Prereq DA 363)	3

B.		3 hours:
MU 101	Music Theory for Non-Majors (May be waived by advisor for those with extensive music back ground)	

C. To be selected from the following:		8 hours:
DA 106	Square Dance	
DA 121	Beginning Tap	
DA 221	Beginning Ballet	
DA 222	Intermediate Ballet (Prereq. DA 211)	
DA 231	Afro-Caribbean Dance I	
DA 241	Improvisation (Prereq. DA 111)	
DA 321	Dance for the Musical Theatre (Prereq. DA121, 211)	
DA 341-01	Selected Topics in Dance	

DA 341-02	Selected Topics in Dance
DA 341-03	Selected Topics in Dance
DA 461	Practicum in Dance
	or
DA 561	Practicum in Dance (senior or graduate student by audition only)

A course in theatre history or music history is strongly recommended.

Environmental Sciences

The concentration requires 24 hours of approved courses including BI 115 Environmental Biology and up to 21 additional hours (at least 9 hours at the 300-400 level), depending on the major. Relevant courses are offered in the departments of biology, geosciences, political science, psychology, and sociology, and may be offered by other departments from time to time. Courses used as part of the major requirements cannot count as part of the ES concentration.

BI 115. Environmental Biology

B

Study of basic relationships between the environment and humans. Discussion of constraints and relationships found in nature from points of view of the physical and life sciences and investigation of how people make decisions to utilize the environment as a resource from the viewpoint of the social sciences. Attempts to link natural and social sciences for awareness of multifaceted nature of environmental problems. *3 hours credit*

Latin American Studies

This concentration requires 18 hours of courses in the areas noted below. It is designed for students who wish to take an integrated series of courses which focus on Latin America. Extra-curricular activities in the Latin American field include speakers and films. The student who is genuinely interested in Latin America is encouraged to take more courses in Spanish than the minimum stipulated below for the concentration. Students interested in the concentration are also encouraged to see the Office of International Education for information on the large number of study-abroad programs which are sponsored by the State University of New York.

Area 1-Spanish-6 credit hours from the following courses:

LS 215	Intermediate Spanish I
LS 216	Intermediate Spanish II
LS 304	Latin American Literature of Protest (in translation)
LS 317	Spanish Conversation
LS 323	Civilization and Culture of Latin America
LS 324-325	Survey of Spanish-American Literature
LS 326	Modern Hispanic America
LS 425	Spanish-American Fiction

Area 2-History-6 credit hours from the following courses:

HY 285	Aztecs, Incas, and Mayas
HY 380	History of Mexico (to 1910)
HY 381	History of Mexico (since 1910)
HY 382-383	History of Latin America
HY 480	Topics in Latin American History: The Cuban Revolution, Revolutions in Latin America

Area 3-Social Sciences-6 credit hours from the following courses:

PS 333	Latin American Politics
PS 341	Political Economy of Development
PS 342	Political Violence and Revolution

LAW, JUSTICE, AND SOCIETY, see page 167.

PUBLIC SERVICE CONCENTRATIONS

The Public Service Concentrations help students prepare for careers in diverse areas of a growing field. Students interested in social work, assistance to the aged, labor mediation, crime prevention, work in international relations, administration of health facilities, and many other branches of public

service can find concentrations that will give them insight into conditions, principles, problems, and solutions in their chosen areas.

All students pursuing Public Service Concentrations are required to register for at least one public service colloquium offered during their semesters in the program. Each 1-credit colloquium is a forum where community leaders, administrators, and faculty members discuss with students an important theme, issue, or problem in public service.

Any junior or senior concentrating in public service who is in good academic standing may apply for an internship in an appropriate public service agency. These internships carry varying amounts of credit and some have course prerequisites. For information, consult the Coordinator of Public Service Concentrations.

PA 201. Public Service Colloquium

A

Examination of an important issue, concept, theme or skill in the field of Public Service. Topics change from semesters and are intended to provide linkage among the various Public Service Concentrations. The insights of faculty, community members and practitioners in the field are a basic part of the presentations. The colloquium may be repeated when the topics differ. *1 hour credit each semester*

PA 470. Public Service Intern

A

Internships in various public and private agencies are available to all qualified students including those enrolled in the various Public Service Concentrations) under sponsorship of departmental faculty. Placements may be located within Chautauqua Co., or elsewhere. The amount of credit varies depending on the placement. *1-15 hours credit each semester*

PA 471. Washington Intern

A

Internship in various public or private agencies in the Washington, D.C. area are available to all qualified students. Students are usually placed with the assistance of the Washington Center or they may find their own placement. The amount of credit varies, but is usually 9 hours for a full-time internship during the spring or fall term and 6 hours in the summer. *-12 hours credit each semester*

PA 472. Washington Seminar

A

Students in the Washington Semester program are required to enroll for one of a variety of seminars on different topics offered by the Washington Center. The seminars meet weekly in Washington to examine various topics from the perspective of the world inside the Beltway. *3 hours credit each semester*

PA 473. Albany Intern

A

Through various state-wide programs, placements in the executive branch of state government and both chambers of the legislature (the State Assembly and the State Senate) are available on a competitive basis to all qualified students. Most participants receive some sort of limited stipend. *1-12 hours credit each semester*

Clinical Psychology Assistant

Richard Leva, Coordinator

This concentration applies the principles of psychology to direct treatment and rehabilitation of clients in mental health agencies. Increasingly, these agencies are hiring college graduates with baccalaureate degrees to perform psychology-related tasks. The concentration will enable students to acquire specific skills in counseling and behavior modification, so as to be able to write and evaluate treatment programs for clients.

The concentration requires a minimum of 23 hours, of which no more than 12 count towards the student's major. These 23 hours consist of (1) a core of courses that prepare students to write and evaluate programs and to sit for the New York Civil Service examination; (2) a group of skills courses among which the student can choose those most pertinent to the setting in which he or she wishes to work; and (3) applied courses that include an internship. Since the concentration is interdisciplinary, only 16 hours may be from any one department.

A Core academic courses: 10 hours

- 1 Statistics: ED 200, or PY 200, or SO200
- 2 PY 429 History and Systems of Psychology
- 3 PY 210 Research Methods

B. Skills courses: 9 hours

PY 447 introduction to Counseling

Plus two courses from the list below, by advisement:

ED 225	Developmental Psychology
ED 250	introduction to the Exceptional Learner Advised for Psychology Assistant position.
ED 355	Learning and Behavior Disorders of Children Required for Psychology Assistant and Habilitation Specialist positions.
ED 360	Developmental Disabilities
PY 243	Principles of Learning
PY 317	Tests and Measurements
PY 356	Abnormal Psychology
SO 310	Sociology of Deviant Behavior
SO 337	Sociology of Aging
SO 338	Sociology of Death and Dying
SO 340	Medical Sociology
SO 360	Criminal Justice System

C. Applied Courses

PY 479	Internship in Psychology
PA 201	Public Service Colloquium

Health Services Administration and Planning

John Krout, Coordinator

The objective of this concentration is to permit students to prepare for graduate work in health services administration and planning and public health, or for entry level positions in a variety of health care institutions. Students may undertake the concentration in Health Services Administration and Planning, or, if their schedule permits, they may complete the major as outlined on page 102.

Students are required to take 22 hours from among the following courses: :

Requirements:

A The Public Service Colloquium (*1 credit)

B Health Policy Electives: 6 hours

Two courses required from the following:

AN 301	Plagues and People
SO 312	
BA 350	Health Care Finance
BI 360	Aids & STDS
EC 360	Health Care Economics
PY 247	Health Psychology
PL 445	Medical Ethics
SO 340	Medical Sociology.
SO 343	Health Systems
PS 384	Politics of Health
PY 257	Women & Health

C Administration of Services: 6 hours

Two courses required from the following:

AC 201	Principles of Accounting I
BA 310	Legal Environment of Business
BA 321	Management & Organizational Behavior
PY 347	Industrial/Organizational Psychology

PS 311	Fundamentals of Public Administration
PS 380	Policy Evaluation
SO 325	Complex Organizations

D Health Services Planning and Administration

HA 300	Health Services Management
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E Areas of Special Interest and Application:

Two courses required from the following:

ED 355	Introduction to Learning & Behavioral Disorders
ED 360	Developmental Disabilities
PY 356	Abnormal Psychology
PY 447	Introduction to Counseling
SO 210	Introduction to Gerontology
SO 310	Sociology of Addiction
SO 337	Sociology of Aging
SO 338	Sociology of Death and Dying
SO 346	Mental Health & Society
SO 477	Health Services Internship

prerequisites: Students who expect to elect this concentration should include the appropriate prerequisites in their General College Program.

Preparation for Graduate Study: Students who expect to pursue graduate work should consult the program coordinator for advice on other relevant courses.

International Service

Randall Dipert, Coordinator

The objective of this concentration is to supplement the student's major with a comprehensive instructional program designed to add to his/her qualifications for international public service and to lay the groundwork for future growth of competency in this field. There are opportunities for overseas study and for internships in U.S. government offices, international agencies, and embassies of foreign governments in Washington, D.C., for qualified students.

Twenty-two hours are required; it is recommended that no more than 9 be used to fulfill major requirements:

A. Required Courses

PA 201	Public Service Colloquium (1 credit hour) (a second hour is recommended)
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International Relations: 3 hours required in either PS 150 U.S. and World Affairs or, for Political Science majors, PS 355 International Political Economy.

U.S. Foreign Policy: 3 hours, PS 356 American Foreign Policy.

Foreign Area Study: 6 hours required from available courses on: Western Europe, Asia, Africa, Latin America, the Soviet Union, the Middle East, or Eastern Europe.

National Economics: 3 hours from

EC 101	Introductory Economics or, preferably,
EC 201	Principles of Macroeconomics.

Functional Area Study: 6 hours, as advised, from among courses in International Economics, Public Administration, Foreign Languages and Literatures, International Relations, Population Studies.

B. Support Courses:

At least two semesters of a foreign language at the college level whether included in the "Functional Area Study" or not are strongly recommended.

Labor and Industrial Relations**Bruce Klonsky**, *Coordinator*

This concentration aims to provide both a breadth of understanding and a technical background sufficient to enable students to enter careers in labor and industrial relations.

Twenty-five hours are required, including three required courses and six support courses distributed among three sub-groups.

A. Required Courses (7 hours):

BA 330	Human Resource Mgmt.
EC 355	Labor and Industrial Relations
PA 201	Public Service Colloquium (1 credit)

*B Support Courses (18 hours distributed as follows):*1. Additional Advanced Courses *directly* on Labor and Industrial Relations

(6 hours from two different departments)

EC 325	Labor Economics
BA 452	Labor Law and Protective Legislation
PY 347	Industrial/Organizational Psychology
SO 329	Industrial Sociology

2. Social and Economic Setting Courses (6 credit hours from two different departments):

BA 440	Advanced Human Resources Management
HY 348	U.S. Labor History
PS 385	Business & Government
PS 388	U.S. Political Economy
SO 322	Work and Society

3. Specific Skills Courses

(6 credit hours with one course from sub-group (a) and one course from sub-group (b):

(a) Statistical or Computer Skills 200 level statistics course from one of the cooperating departments (business administration, economics, political science, psychology, or sociology)

CS 104	Introduction to Micro-computing or
CS 105	Introduction to Computing
AC 201	Principles of Accounting I

Note: It is generally recommended that students take AC 201 to satisfy this requirement, and take the 200-level statistics courses in their major (which would also meet requirement IC of the General College Program) and CS 104 or CS 105 to fulfill requirement ID of the General College Program.

(b) Oral or-Written Expression Skills

CM 105	Public Speaking
EN 368	Public Relations
EN 375	Writing for the Professions

No more than 9 of the required 25 hours can be taken in one department.

For students without in-service training or experience, a number of advanced-level public service internships are available on a selective basis. An internship will be added to, not substituted for, any of the regular 25 hours required.

Law, Justice, and Society**B. Joyce Stephens**, *Coordinator*

A group of courses designed for pre-law students; for persons interested in the more traditional police, corrections, and rehabilitation careers; and for individuals considering newer law careers (e.g., consumer law, environmental law) and para-legal activities including legal aid, community action groups, etc.

A minimum of 25 hours is required in courses designated below as part of the Law, Justice, and Society program. Up to 6 hours of transfer credit may be applied to meeting this requirement.

Within the 25 hours, the following are required:

1. A course from among PL 362, PS 276 or 277, or SO 362.
2. PA 201 Public Service Colloquium (1 credit)
3. Nine hours of courses from each of *two* of the four groups described below. Within each of the selected groups, courses must be in at least two disciplines.
4. No more than 15 of the required 25 hours can be taken in one department.
5. At least 15 of the required 25 hours must be at the advanced (300 or above) level.

For students without in-service training or experience, a number of advanced-level public service internships are available on a selective basis. An internship will be added to, not substituted for, any of the regular 25 hours required.

Students are encouraged to take one or more "methods courses" (e.g., computer science, statistics, methods, etc.) in addition to the required 25 hours in the formal concentration.

Emphasis Groupings (for fulfilling requirement No. 3 above):*

A. Law, Crime and Society

AN 330	Comparative Law and Politics
EN 296	Sex, Violence & Racism
HY 388	Origins of Civil Liberties
PL 312	Current Moral Issues and Principles
PL 362	Philosophy of Law
PS 276	Law and Society
SO 362	Criminology

B. Administration

BA 321	Management and Organizational Behavior
PL 310	Administrative Ethics
PS 311	Fundamentals of Public Administration
PY 347	Industrial/Organizational Psychology
SO 360	Criminal Justice System
SO 366	Sociology of Corrections

C. Human Behavior

PY 245	Social Psychology
	or
SO 204	Social Psychology
PY 246	Psychology of Personality
PY 355	Group Dynamics
PY 356	Abnormal Psychology
SO 303	Social Stratification
SO 310	Sociology of Deviant Behavior
SO 316	Minorities
SO 318	Collective Behavior
SO 363	Victimology
SO 364	Juvenile Delinquency

D. Law

BA 310	Legal Environment of Business
PL 263	Lawyers' Ethics
PL 363	Judicial Decision Making
PS 277	Introduction to Law
PS 370	American Constitutional Law
PS 371	Civil Rights and Liberties

*Other courses may be substituted with the permission of the Coordinator of the Law, Justice, and Society Concentration.

Gerontology

John Krout, Coordinator

Gerontology studies the impact of social and cultural factors on the aging process and examines the status of older people in society.

The Gerontology concentration will provide the basis for continued study in graduate school or for direct entry into one of the many new careers in research or services for the elderly.

Twenty-two hours are required; it is recommended that no more than 9 be used to fulfill major requirements. Introduction to Gerontology (SO 210) should be taken before the other courses.

A. The Field of Gerontology (both required, 6 hours)

SO 210 Introduction to Gerontology SO 479 Social Gerontology Intern

B. Perspectives on Aging (6 hours required)

PY 366 Psychology of Adulthood and Aging

SO 337 Sociology of Aging

SO 338 Sociology of Death and Dying

PS 389 Policy for the Aging

PY 289 Lifespan Human Development

C. Health and Health Care (3 hours required)

SO 340 Medical Sociology

SO 343 Health Care Systems

SO 346 Mental Health and Society

D. Working with the Elderly (5 hours required)

PY 355 Group Dynamics

PY 447 Introduction to Counseling

SH 208 Geriatric Communication Disorders

E. Administration and Analysis Skills (3 hours required)

PS 311 Fundamentals of Public Administration

BA 321 Management and Organizational Behavior

SO 325 Complex Organizations

F. PA 201 Public Service Colloquium (1 credit, required)

Social Work

Raymond McLain, Coordinator

The Social Work concentration is designed to introduce students to the broad field of social services by providing an organized, interdisciplinary curriculum and an opportunity for field experience. The concentration allows students interested in social work or related social service careers to supplement their departmental major with a course of study which has been used successfully to gain admission to graduate social work schools throughout the country and to secure employment in such social service fields as general hospitals, nursing homes, youth bureaus, group homes, nutrition programs, social welfare agencies, residential treatment programs, etc.

The concentration requires 23 hours; it is recommended that no more than 9 be used to fulfill the requirements of the major.

Curriculum*

A. Social Work Practice

SO 218 Introduction to Social Work

SO 328 Social Welfare Systems

or

PS 382 Social Welfare Systems

PA 201 Public Service Colloquium (1 credit)

B. Policies, Programs, and Skills

(9 hours required, 3 hours from each category)

Policies

PL 310	Administrative Ethics
PS 121	American Public Policy
HY 332	U.S. History, 1945 to Present
SO 303	Social Stratification

Programs

SO 310	Sociology of Deviant Behavior
SO 316	Minority Groups
SO 343	Health Care Systems
SO 346	Mental Health & Society
SO 366	Sociology of Corrections
PY 356	Abnormal Psychology Skills
PS 311	Fundamentals of Public Administration
PY 447	Introduction to Counseling
PY 355	Group Dynamics
BA 321	Management and Organizational Behavior
CS 104	Introduction to Microcomputing or
CS 105	Introduction to Computing

C Social Research and Scientific Method (3 hours required)

SO 202	Social Analysis
SO 300	Research Methods
PY 210	Research Methods

D Social Work Placement (4 hours required)

SO 472	Social Work Intern* (or equivalent as advised)
SO 440	Social Work Seminar

*Curriculum and internship requirements may be modified for students participating in the Albany or Washington semester programs.

Special Studies Courses

In addition to the major programs and concentrations described above, the Special Studies program offers certain courses developed for interdisciplinary or special interest purposes.

Independent study and internship options are available through Special Studies. Internships may receive up to 15 hours of credit. Students proposing an internship are required to prepare a "contract" describing the goals of the internship and how they will be met. Internship forms are available from the Coordinator of Public Service Concentrations and Internships. Only 6 hours of credit earned through internship or independent study may be applied toward the 300- and 400-level course requirements of the individualized major.

SS 205. The Global Future**B**

The Global Future explores the interdisciplinary approaches to solving global issues that face people entering the 21st century. Included are issues of population, natural resources, poverty, economic development, and the concepts of one earth --one world, and of sustainability. 3 hours credit

SS 480. Independent Study**A**

Open only to Special Studies majors. Proposed independent studies must be described in the student's approved Special Studies proposal, 3 hours credit

SS 490. Internship**A**

Open only to Special Studies majors. Students proposing internships must have an approved Special Studies proposal which includes the internship. Additionally, they must have a faculty sponsor and a detailed plan for the internship describing 1) the duties approved by the interning

agency, 2) the student's method of reporting or reflecting on the internship experience, 3) the method of internship evaluation, and 4) the amount of credit to be earned. -15 hours credit

SPEECH PATHOLOGY AND AUDIOLOGY

Office: WI 21 Thompson Hall

Robert A. Manzella, *Chairperson*

The Department of Speech Pathology and Audiology offers a course of study and clinical experiences leading to the Bachelor of Science in Education, Speech and Hearing Handicapped. Upon completion of the program, students are eligible for New York State Provisional Certification as a teacher of the Speech and Hearing Handicapped. The undergraduate curriculum is designed to lead to graduate training in accordance with the standards established by the American Speech-Language Hearing Association (ASHA).

Clinical practice begins in the junior year as students participate in diagnostic evaluations and therapy under the supervision of department faculty in the Henry C. Youngerman Center for Communication Disorders. All faculty are fully certified by the American Speech-Language-Hearing-Association and licensed by the State of New York. An off-campus student teaching experience is included in the senior year.

An undergraduate degree in the education of the Speech and Hearing Handicapped provides an excellent background for enrollment in graduate programs in education of the deaf, special education, linguistics, and counseling, in addition to advanced specialization in audiology or speech-language pathology.

Henry C. Youngerman Center for Communication Disorders (including laboratories and clinics): In conjunction with the program in the teaching of speech and hearing handicapped, the department operates a speech clinic and an audiology clinic located in Thompson Hall. College clinicians serve regularly enrolled students, administer speech proficiency tests and hearing evaluations, and offer specialized attention to those in need of correction. An out-patient clinic offers services to those in the community having serious speech, language and hearing problems. Students enrolled in this curriculum participate as observers and, under supervision, as interns in both clinics. Further information concerning clinic appointments may be obtained in Room W121, Thompson Hall.

Recommendations for teaching certification are in accordance with competency-based teacher education guidelines.

Students should plan to seek a graduate degree. The graduate programs at Fredonia in Speech Pathology and Audiology are accredited by the Educational Standards Board of the American Speech-Language Hearing Association.

Requirements for all Students Seeking Certification

Students during their fifth semester, or the semester in which 75 credit hours will be earned, must normally meet the following requirements before being permitted to take further courses in the speech pathology and audiology department.

1. A minimum overall GPA of 2.5.
2. A minimum overall GPA of 2.5 in all speech pathology and audiology courses completed.
3. Additional requirements as specified elsewhere.

The New York State Education Department requires a Child Abuse Seminar for all students being recommended for teaching certification; Early Childhood, Elementary Education, Secondary Education, and Speech Pathology/Audiology. Students must successfully complete the New York State Teacher Examination Program and satisfy the foreign language requirement as stipulated by the State Education Department.

Requirements for a Major in Speech Pathology and Audiology

(B.S. in Education, Speech and Hearing Handicapped, and Provisional Certification):

		Hrs.
SH 250	Speech & Language Development	3
SH 316	Speech Science	3
SH 318	The Speech & Hearing Mechanism	3

SH 321	Speech Pathology	3
SH 322	Hearing Problems & Tests	3
SH 323	Articulation & Language Disorders	3
SH 350	Phonetics	3
SH 327	Organization & Administration of Speech & Hearing Programs	2
SH 328	Clinical Methods, Speech & Hearing	3
SH 329	Clinical Practice	3
SH 418	Stuttering & Voice Problems	3
SH 419	Auditory Training & Speech Reading	3
SH 432	Student Teaching of the Speech & Hearing Handicapped	10
		45

Required for Provisional Certification:

ED 215	Education in American Society	3
ED 225	Developmental Psychology	3
ED 349	Educational Psychology	3
		9

Also required is one year of college-level study of a language other than English, or the equivalent.

Requirements for a Minor in Speech Pathology and Audiology:

Eighteen credit hours including:

SH 150	Introduction to Communication Disorders	3
SH 201	Voice, Articulation, and Resonance	3
SH 250	Speech & Language Development	3

Plus nine hours selected from:

		9
SH 318	The Speech and Hearing Mechanism	
SH 321	Speech Pathology	
SH 322	Hearing Problems & Tests	
SH 323	Articulation & Language Disorders	
SH 350	Phonetics	
SH 418	Stuttering & Voice Problems	
SH 490	Independent Study	

SH 150. Introduction to Communicative Disorders**B**

An introduction to and an overview of the field of communicative disorders (speech, language and hearing). Interactions with related disciplines in the humanities, and in the behavioral, biological and physical sciences, as well as study of the normal communication processes
3 hours credit

SH 201. Voice, Articulation, and Resonance**A**

Survey of voice and speech production. Introduction to International Phonetic Alphabet. Techniques of analysis and improvement of simple deviancies of voice, articulation, and resonance. Vocal hygiene is stressed 3 hours credit

SH 208. Geriatric Communication Disorders**B**

Designed to provide students in related programs with information about the communication problems and disorders associated with aging. The course will focus on the normal communication process, speech, language and hearing disorders of the aged and the psychosocial consequences of disordered communication. Management approaches, services available and the evolving role of the health professional will be discussed. prerequisite Open for non-majors only 2 hours credit

SH 250. Speech and Language Development**B**

Introduction to normal language and speech development in children. Provides theoretical and practical frame of reference for students entering child-centered professions. Foundations of language and speech acquisition, developmental processes requisite to normal speech and language, and means of facilitating normal communicative abilities. prerequisite Sophomore status. 3 hours credit

SH 316. Speech Science**B**

Study of the interrelationships between acoustic, physiological, and aerodynamic factors influencing voice and speech production, including study of processes of respiration, phonation, resonance, articulation, and their interrelationships. *Prerequisites* SH 318, 350 3 hours credit

SH 318. The Speech and Hearing Mechanism**B**

Anatomical, physiological, and auditory characteristics of speech and hearing processes. Speech studied as a process adapted to environmental factors. *Prerequisite* Sophomore status 3 hours credit

SH 321. Speech Pathology**B**

Organic and functional disorders differentiated and characterized as to etiology and incidence in terms of speech sounds and physical characteristics. *Prerequisites* SH 250, 318, 350 3 hours credit

SH 322. Hearing Problems and Tests**B**

An introduction to acoustics, anatomy, physiology and pathology of the auditory system. Study and performance of audiology as applied in clinical environments. Emphasis on theoretical and applied research to differentiate normal from abnormal audition. *Prerequisite* SH ,318 3 hours credit

SH 323. Articulation and Language Disorders**B**

Assessment and intervention principles and practices appropriate for working with articulation and language problems of children and adults 3 hours credit

SH 327. Organization and Administration of Speech and Hearing Programs**B**

Principles and practices necessary to the organization of programs for school systems; discussion of federal, state laws and regulations governing the state delivery system 2 hours credit

SH 328. Clinical Methods, Speech and Hearing**B**

Study of diagnostic and therapeutic methodologies for management of communicatively handicapped. Observation of clients in clinical and laboratory environments; experiences specific to provision of clinical services. *Prerequisites* SH 318, 350 3 hours credit

SH 329. Clinical Practice, Communication Disorders**A**

An application of the student's knowledge from the classroom to a clinical situation. Student interns assigned to college clinic or off campus school sites provide speech/language testing and therapy to clients under faculty supervision. Required attendance at weekly staff meetings for case reviews and presentation of diagnostic and remedial materials. No less than a "C" grade in SH 328 Clinical Methods, and a 2.0 GPA in SH 250, SH 318 and SH 350. *prerequisites* SH 250, 318, 328, and 350.3 hours credit each semester

SH 330. Clinical Practice**B**

As required. 3 hours credit

SH 350. Phonetics**B**

Study of general articulatory phonetics, introduction to acoustic phonetics and phonology. Students transcribe English and non-English sounds following International Phonetic Alphabet (IPA). *Prerequisite* Sophomore status 3 hours credit

SH 418. Stuttering and Voice Problems**B**

Study and analysis of normal, and pathological voice production, etiology, and clinical management. Historical aspects and present-day concepts, definitions, descriptions, causes, development, and remediation of stuttering. *Prerequisite* SH 318 3 hours credit

SH 419. Auditory Training and Speech Reading**B**

An introduction to speech reading and auditory training to optimize speech perception. Study and performance of the visual and auditory system as applied in clinical environments. Emphasis on

theoretical and applied research to normal from abnormal speech perception *Prerequisite* SH 322
3 hours credit

SH 420. Advanced Speech Pathology

B

Seminar devoted to assigned readings and to approved individual research. Designed to strengthen the student in specific areas and prepare him/her for more advanced studies.
Prerequisites SH 321,418 3 hours credit

SH 432. Student Teaching of the Speech and Hearing Handicapped

A

Field-based practicum at public schools, BOCES facilities or developmental centers. Cooperating clinicians supervise students engaged in the provision of testing and therapy services to the speech/language and hearing impaired. *prerequisite* Minimum of 21 hours in speech language pathology/audiology courses; recommendation by department; grades of "C" or better in SH 329-330. 6 hours credit

SH 490. Independent Study

A

Study of a particular problem in speech pathology and audiology. Periodic meetings with instructor; writing a substantial paper. *prerequisite* Senior standing; permission of instructor, advisor, and chairperson; contact department office prior to registration. 3 hours credit

SH 495. Topical Seminar in Speech-Language Pathology/Audiology

B

Detailed study of selected topics in speech pathology or audiology. Content will change from semester to semester but will focus on a relatively narrow topic or issue of current interest.
prerequisite Permission of chairperson 3 hours credit

THEATRE ARTS

Office: 209 Rockefeller Arts Center
Robert Klassen, *Chairperson*

It is the mission of the Department of Theatre Arts to provide training for professional, community and academic theatres within the framework of a liberal arts education. The theatre program also serves as a means of acquiring a liberal education.

A liberal education serves to broaden horizons, break down prejudices, and build inquiring open minds; it is of value no matter what the student's future goals. Theatre and drama, which are ultimately concerned with all aspects of people's experiences, have special relevance to a liberal education. The more the theatre majors in a liberal arts program understand about human existence, the more experiences they have entered into imaginatively and projected to others from the stage, the more they will be able to order, clarify and understand their own lives and the world in which they live. Of all the disciplines in a liberal arts university, theatre may be the one most clearly related to the pattern of peoples' lives and normal experiences.

The Department of Theatre Arts offers the Bachelor of Arts and the Bachelor of Fine Arts degrees. The Bachelor of Arts degree is a General Theatre Studies program. The Bachelor of Fine Arts degree program is limited to those students who demonstrate excellence or the potential for excellence in performance and design/technical production. It is designed for those students who enter college with a firm idea of their professional goals. Theatre Arts is an accredited member of the National Association of the Schools of Theatre and adheres to the standards set forth by NAST.

In conjunction with the School of Music, the department offers study leading to the Bachelor of Fine Arts in Musical Theatre degree. A minor in Theatre Arts (22 semester hours) is available as well, allowing the pursuit of a secondary interest in theatre as support for a major area or for personal growth and satisfaction. The minor should prove to be extremely useful for communication, English, music or elementary education majors.

Admission to the Department

All qualified first year students are automatically admitted to the Bachelor of Arts General Theatre Studies program. Also, upon acceptance by the college, prospective students may audition for the B.F.A. degree programs during the year prior to entering Fredonia at designated audition dates. Audition information and application forms are available from the departmental office.

Those students entering the B.A. program may, at the discretion of the faculty, be invited to enter a B.F.A. program at the conclusion of the first year (B.F.A. Performance) or by the end of the first semester of the second year (B.F.A. Design; Technical Production/Management). Students not invited may petition the faculty for consideration no later than the conclusion of the first semester of the second year (all B.F.A. programs). All students entering the B.F.A. degree program are on probation until the conclusion of their second year.

The B.F.A. Musical Theatre degree program requires an audition in voice, acting and dance prior to college admittance.

Several scholarships and awards, including the John S. Mintun Scholarship and Robert W. Marvel Award, are available to theatre arts students. There is also a chapter of Alpha Psi Omega, a national honor society.

Additional Requirements

In addition to the specific and individual courses, periodic reviews of achievement will be conducted for all B.F.A. candidates with the purpose of determining advancement or retention. At the end of the fourth semester, each B.F.A. major will be reviewed and a determination made as to permission for further study. Students with unfavorable evaluations will not be permitted to continue study in the B.F.A. but may continue in the B.A. General Theatre program.

The B.F.A. Musical Theatre program requires a vocal jury at the conclusion of each semester. A screening Vocal/Acting/Dance jury is conducted at the conclusion of the fourth semester to determine continuance in the program. A senior recital is presented in the fourth year.

Participants in the B.F.A. Performance program must present acting juries at the end of each semester of the second year, and those in the B.F.A. Design and Technical Production/Management program must present a portfolio jury at the end of the second year. All B.F.A. students will present a jury at the end of the third year and a senior recital/portfolio during their fourth year.

B.A. students are evaluated by faculty at the conclusion of the sophomore year and those students should see their advisor at the beginning of their third year to review their evaluations.

Students who are on academic probation will not be permitted to perform for public performances in departmental productions nor will major crew assignments be permitted.

All majors and minors are required to complete Theatre Practice obligations which are practical extensions of the classroom and vary in accordance with the specific programs. The Theatre Practice commitment requires approximately 12 clock hours per week and may, in special cases, require significantly more time. Theatre Practice credit will not count toward total number of credits required in major. A grade of C must be made in Theatre Practice or the course must be re-taken prior to graduation.

All departmental majors must successfully complete a minimum of 30 upper-level hours and appropriate supporting courses as determined by faculty advisement.

Degree Requirements Bachelor of Arts

General Theatre Studies: 45-46 credit hours

TA 101-102	Theatre Practice	0
TA 110	Theatre Visiting Artists	4
TA 117	Script Analysis	3
TAM 121-122	Intro. to Tech. Theatre I & II	6
TA 131	Intro. to Acting I	3
TA 201-202	Theatre Practice*	2
TA 220	Makeup	3
TA 222	Stagecraft	3
	or	
TA 223	Lighting I	3
	or	
TA 228	Costume Crafts	1
	and	
TA 327	Costume Design I	3
TA 301-302	Theatre Practice*	2
TA 401-402	Theatre Practice*	2
TA 441	Directing I	3
TA 451-452	History of the Theatre I & II	6
TA 460	Theatre Management	3
TA	Electives	<u>10-11</u>
		45-46

Bachelor of Fine Arts

Performance: 83 credit hours

TA 101-102	Theatre Practice	0
TA 110	Theatre Visiting Artists	4
TA 117	Script Analysis	3
TA 121-122	Intro. to Tech. Theatre I & II	6
TA 131-132	Intro. to Acting I & II	6
TA 201-202	Theatre Practice*	2
TA 220	Makeup	3
TA 231-232	Scene Study in Acting I & II	6
TA 242-243	Introduction to Voice & Movement I & II	6
TA 301-302	Theatre Practice*	2

TA 325	History of Fashion	3
TA 331	Styles of Acting	3
TA 332	Acting Shakespeare	3
TA 342-343	Stage Voice I & II	6
TA 344	Stage Dialects	3
TA 361-362	Stage Movement I & II	6
TA 401-402	Theatre Practice*	2
TA 431	Audition Techniques	3
TA 432	Special Studies in Acting	3
TA 441	Directing I	3
TA 451-452	History of the Theatre I& II	6
DA 111	Fundamentals of Dance	2
DA 241	Improvisation	2
SH 201	Voice, Articulation & Resonance	3
		83

Bachelor of Fine Arts *Design: 79 credit hours*

TA 101-102	Theatre Practice	0
TA 110	Theatre Visiting Artists	4
TA 117	Script Analysis	3
TA 121-122	Intro. to Tech. Theatre I & II	6
TA 131	Intro. to Acting I	3
TA 201-202	Theatre Practice*	2
TA 220	Makeup	3
TA 222-322	Stagecraft I & II	6
TA 223-324	Lighting I & II	6
TA 226-427	Scene Painting I & II	6
TA 228	Costume Crafts	1
TA 301-302	Theatre Practice*	2
TA 303-304-305	Rendering I, II, III	3
TA 320	Advanced Makeup	3
	or	
TA 321	Dyeing and Distressing for the Theatre	3
TA 325	History of Fashion	3
TA 326-426	Scene Design I & II	6
TA 327-328	Costume Design I & II	6
TA 329	Pattern Drafting	3
TA 401-402	Theatre Practice*	2
TA 403-404	Stage Production I & II	2
TA 420	Special Studies in Technical Theatre	3
TA 441	Directing I	3
TA 451-452	History of Theatre I & II	6
TA 490	Professional Theatre Internship	3
		79

Bachelor of Fine Arts*Technical Production/Management: 78 credit hours*

TA 101-102	Theatre Practice	0
TA 110	Theatre Visiting Artists	4
TA. 117	Script Analysis	3
TA 121-122	Intro. to Tech. Theatre I & II	6
TA 131	Intro. To Acting I	3
TA 201-202	Theatre Practice	2
TA 222-322	Stagecraft I & II	6
TA 223-324	Lighting I & II	6
TA 228	Costume Crafts	1
TA 301-302	Theatre Practice*	2
TA 401-402	Theatre Practice*	2
TA 403-404	Stage Production I & II	2
TA 420	Special Studies in Tech Theatre	3
TA 451-452	History of the Theatre I & II	6
TA 460	Theatre Management	3

TA 490	Professional Theatre Internship	3
As Available:		
PH 200	Engineering Graphics	2
AC 201	Principles of Accounting	3
BA 310	Legal Environment	3
BA 321	Mgt. & Organizational Behavior	3
PY 245	Social Psychology **	
	or	3
SO 204	Social Psychology	
CM 105	Public Speaking	3
CM 221	Interpersonal Communication	3
CM XXX	TV Production (to be selected)	3
	Computer science, to be selected based on prior background	6
ST 100	Recording Fundamentals	3
		78

Bachelor of Fine Arts*Musical Theatre: 89 credit hours*

All students take the following courses in the first year:

DA 111	Fundamentals of Dance	2
DA 211	Dance II	2
MU 100	Recital Seminar	0
MU 117-118	Piano Class	2
MU 121-122	Aural Theory I & II	4
MU 123-124	Written Theory I & II	4
MU 125-126	Applied Voice	4
MU 137-140	Diction for Singers	2
TA 101-102	Theatre Practice*	0
TA 110	Theatre Visiting Artists(1/2 credit repeated each term)	1
TA 121	Intro. to Tech. Theatre I	3
TA 122	Intro. to Tech. Theatre II****	
	or	3
MU 160	Music History to 1800***	
TA 131-132	Intro. To Acting I & II	6
		33

Cannot be applied to the hours for the B.A. or B.F.A. degree, nor to the 120 hours required for graduation.

**Are prerequisites for BA 321.

***Students must select specific track (theatre or music) by the end of the first semester. This selection will then total 33 hours at the end of the first year.

Theatre Track: (for Music Track requirements see School of Music listing)

TA 110	Theatre Visiting Artists	3
TA 117	Script Analysis	3
TA 201-202	Theatre Practice*	2
TA 220	Makeup	3
TA 231-232	Scene Study in Acting I & II	6
TA 301-302	Theatre Practice*	2
TA 331	Styles of Acting	3
TA 401-402	Theatre Practice*	2
TA 431	Audition Techniques	3
TA 452	Theatre History II	3
DA 121	Beginning Tap Dance	2
DA 221	Beginning Ballet	2
DA 311	Dance III	2
DA 321	Dance for Music Theatre	3

DA 363	Choreography I	3
MU 200	Recital Seminar	0
MU 217-218	Piano Class	2
MU 235-236	Applied Voice	6
MU 300-400	Recital Seminar (2 semesters)	0
MU 335-336	Applied Voice	6
MU 435-436	Applied Voice	6

Minor: 22 credit hours

TA 10/-102	Theatre Practice	0
TA 110	Theatre Visiting Artists(4 terms at 1/2 credit hour)	2
TA 114	Intro. to the Performing Arts	3
TA 117	Script Analysis	3
TA 121-122	Intro. to Technical Theatre	6
TA 130	Acting for Non-Majors or	3
TA 131	Acting I	
TA 201-202	Theatre Practice	2

ONE of the following:

3

TA 325	History of Fashion
TA 451	Theatre History I
TA 452	Theatre History II
TA 460	Theatre Organization & Management
TA 242	Introduction to Voice & Movement I
TA 441	Directing I

TA 101-102. Theatre Practice**A**

Laboratory in performance or production involving application of theatre techniques to the various aspects of departmental productions. Required for TA 121-122.0 *hours credit*

TA 110. Theatre Visiting Artists**A**

1/2 hour credit per, semester

TA 124. Introduction to the Performing Arts**A**

An overview of current and historical aspects of the performing arts. Elements covered include theatre, dance, and music. Attendance required at campus theatrical events. 3 hours credit

TA 117. Script Analysis**B**

Explores the process in evaluating/discovering production and performance values in a playscript. 3 hours credit

TA 121-122. Introduction to Technical Theatre**B**

One-year course; terminology and tools of production work including stagecraft, scene design, lighting, costume, sound, makeup, and management. Lecture and required laboratory participation. Majors/minors must enroll currently in TA 101-102.3 *hours credit each semester*

TA 130. Acting for Non-Majors**B**

Basic techniques of acting with emphasis on improvisation, script analysis and scene study. Attendance at campus theatrical events required. 3 hours credit

TA 131. Introduction to Acting I**B**

Introduction to theory and practice of the basic principles of Stanislavski realism and basic craft skills of acting. *Prerequisite* Theatre Arts majors/minors only. 3 hours credit

TA 132. Introduction to Acting II**B**

Continued work on basic principles of Stanislavski realism with a stronger emphasis on self-awareness and discovery, spontaneity, and improvisation. *Prerequisite* TA 131. Theatre Arts majors only. 3 hours credit

TA 201-202. Theatre Practice**B**Continuation of TA 101-102. *1hour credit each semester***TA 220. Makeup****A**

Design, selection, application, and evaluation of stage makeup. Color theory and painting technique are stressed. 3 hours credit

TA 222. Stagecraft I**B**Responsibility of the technical director, organization. of the backstage and scene shop, rigging stage scenery, soft scenery and platforming. Practical work on department productions may be required. *Prerequisite* TA 122. *3 hours credit***TA 223. Lighting I****B**

Mechanics of stage and television lighting, involving basic electricity, color theory, instrumentation, distribution and control. Possibility of practical application on departmental productions. prerequisite TA 122 or permission of instructor. 3 hours credit

TA 226. Scene Painting I**B**Color theory, preparation of painting surfaces, and basic painting techniques as they pertain to the theatre. *Prerequisite* TA 122. 3 hours credit**TA 228. Costume Crafts****B**Laboratory exploration of basic costume construction techniques *Prerequisite* TA 122. *1 hour credit***TA 231-232. Scene Study in Acting I & II****B**Skills and techniques for role analysis and performance in realistic plays *Prerequisite* TA 132; 231 must precede 232. Theatre Arts/Musical Theatre majors only. 3 hours credit *each semester***TA 242-243. Introduction to Voice & Movement I & II****B**Assists the actor in freeing the voice and body for creative response. Explores and develops awareness of physical/vocal instrument in character creation *Prerequisite* TA 131 or permission. of instructor. 3 hours credit *each semester***TA 301-302. Theatre Practice****B**Continuation of TA 201-202. *1hour credit each semester***TA 303-304-305. Rendering Technique I, II & III****B**Explores the graphic media used by the designer in preparing drawings for the theatre. *1 hour credit each semester***TA 320. Advanced Makeup****C**

Design and application of special effects, 3-D prosthetics, and selected advanced makeup techniques. prerequisite TA 220 and approval of instructor. 3 hours credit

TA 321. Dyeing and Distressing for the Theatre**C**Exploration of dye and painting techniques on fabric for scenic and costume design. Laboratory work stresses safety in technology and creativity in design *Prerequisite* TA 226 or 228 3 hours credit**TA 322. Stagecraft II****B**Construction of framed scenery, wagons, cornice and trim, doors, windows and three dimensional scenery. Extensive work in drafting scenery. Practical work on department productions may be required. *Prerequisite* TA 222. 3 hours credit**TA 324. Stage Lighting II****B**Principles-of lighting design and color use for stage and television through script analysis and practical projects. Opportunity to design a production as part of class work. prerequisite TA 223 or permission of instructor. *3 hours credit*

TA 325. History of Fashion**B**

Chronological survey of clothing and fashion their sociological and artistic implications from the Egyptians to the 20th century. 3 hours credit

TA 326. Scene Design I**B**

Principles, procedures, and development of scene design; primary emphasis on technical aspects of design. Students must enroll in TA 303, 304 or 305 simultaneously.
prerequisite TA 322. 3 hours credit

TA 327. Costume Design I**B**

Costume design methods and concepts. Students must enroll in TA 303, 304 or 305 simultaneously. *Prerequisites* TA 325 3 hours credit

TA 328. Costume Design II**B**

Continuation of TA 327 development of more complicated and sophisticated concepts. Students must enroll in TA 303,304 or 305 simultaneously *Prerequisites* TA 327 3 hours credit

TA 329. Pattern Drafting**B**

Flat pattern techniques as applied to costume pattern drafting. Sketch interpretation and creativity in the art of cutting are emphasized. Production work required *Prerequisites* TA 228. 3 hours credit

TA 331. Styles of Acting**B**

Approaches to various non-realistic styles of acting. prerequisite TA 232. B.F.A. Performance/Musical Theatre majors only. 3 hours credit

TA 332. Acting Shakespeare**B**

Acting Shakespeare approached through language and text. *Prerequisite* TA 331. B.F.A. Performance/Musical majors only. 3 hours credit

TA 335-336. Summer Theatre**D**

Participation in a summer theatre program; emphasis on stagecraft, scene design and painting, stage lighting, costuming, and theatre management. May be repeated for credit.
prerequisite Permission of instructor. *3-6 hours credit each additional semester*

TA 338. Special Topics**D**

Study of selected areas of theatre arts not covered in regular curricular program. May be repeated for credit. *Prerequisite* Permission of instructor. *1-3 hours credit*

TA 342-343. Stage Voice I & II**B**

Explores methods for freeing the voice for creative response to produce controlled, vitalized speech in performance and begins dialect skills *Prerequisite* TA 243. B.F.A. Performance/Musical Theatre majors only. 3 hours credit *each semester*

TA 344. Stage Dialects**C**

Acquisition of basic skills by the performer or director in the use of major dialects. *Prerequisite* TA 343. B.F.A. Performance majors only. 3 hours credit

TA 353. History of Musical Theatre**D**

Development of the theatrical genre known as musical theatre from its roots to the present. *Prerequisites* Junior standing. 3 hours credit

TA 361-362 Stage Movement I & II**B**

Exploration and development of an awareness of the body as a physical instrument in character creation on stage. Techniques studied include development of flexibility, reduction of physical tension, development of coordination, mask technique, period movement and combat skills. *Prerequisites* TA 243; B.F.A. Performance majors only. 3 hours credit *each semester*

TA 383. Technical Theatre Seminar**A**

Discussion seminar on problems and procedures of mounting theatrical productions. Includes scheduling personnel, weekly rehearsals and other pertinent current production needs. Does not apply to the required hours for major in theatre arts. *1/2 hour credit; may be repeated*

TA 401-402. Theatre Practice **B**

Continuation of TA 301-302. *1 hour credit each semester*

TA 403-404. Stage Production I & II **B**

Special problems course for advanced technical theatre students.
prerequisite TA 403 prerequisite to 404. *1 hour credit each semester*

TA 420. Special Studies in Theatre **B**

Seminar and laboratory experience exploring a variety of processes and techniques in depth. Examples include but are not limited to metal-working, plastics technology, theatre design and architecture, shop management, specification writing, etc. Travel to off-campus seminars as opportunities arose. prerequisite Junior standing or permission of instructor *3 hours credit*

TA 426. Scene Design II **B**

Continuation of Scene Design I with specific emphasis on artistic requirements *of the production.
Prerequisite TA 326 3 hours credit

TA 427. Scene Painting II **B**

An intensive laboratory experience exploring advanced techniques in painting, dimensional texture and surface treatments. May require practical work on productions *Prerequisite TA 226. 3 hours credit*

TA 431. Audition Techniques **B**

Intensive study of skills needed by actors to increase their marketability in today's theatre.
prerequisite TA 331. B.F.A. Performance/Musical Theatre majors only. *3 hours credit*

TA 432. Special Studies in Acting **B**

Work on integration of acquired skills in performance. prerequisite TA 332. B.F.A. Performance/Musical Theatre majors only. *3 hours credit*

TA 435-436. Rehearsal and Performance **B**

Application of advanced techniques in preparation for studio and major productions.
0 hours credit each semester

TA 441. Directing I **A**

Director's functions and responsibilities including play selection, auditioning/casting, staging techniques and script analysis using the motivational unit as a basis of approach. Emphasis on preparation and presentation of a one-act play. prerequisite majors/minors only; junior standing.
3 hours credit

TA 442. Directing II **A**

Continuation of TA 441; emphasis on theories of directing, as well as concerns and responsibilities of the director in productions involving period styles and/or alternative forms of staging.
Prerequisite TA 441. Majors only. 3 hours credit

TA 451-452* History of the Theatre I & II **B**

A survey of theatre history from preGreek to present. Performance and production elements in all ages will be covered. *Prerequisite Junior standing. 3 hours credit each semester*

TA 460. Theatre Organization and Management **D**

Theatre management including philosophy, management procedures, budgets, publicity/promotion, ticket office and house management procedures for educational, community and professional resident theatres. prerequisite Theatre Arts major, or permission of instructor; junior standing *3 hours credit*

TA 481. Senior Seminar **D**

Topics vary from semester to semester. May be repeated for credit. prerequisite Senior standing or permission of instructor. 1-3 hours credit

TA 482. Directed Study**A**

Intensive individual study of some particular aspect of theatre involving preparation of a paper or project in support of the findings. Request for enrollment must be made in the form of a written proposal prior to the end of the second week of the semester. May be repeated for credit. prerequisite Permission of department. 1-3 hours credit each semester

TA 490. Professional Theatre Internship**A**

Approved and supervised work-training experience in a professional theatre company. Prerequisites Senior standing and permission of department Up to 15 hours credit

TA 499. Performance Seminar**A**

Development and public presentation of a creative project as a senior recital. Prerequisites Senior standing; B.F.A. Performance majors only. 3 hours credit

*May be taken as History (HY) with appropriate responding numbers (HY 451,452).

ACADEMIC POLICIES

Academic Advising

The variety of programs both in major departments and in interdisciplinary areas at the College at Fredonia requires that every student meet with an academic advisor periodically to review progress and plan his or her academic future. It is particularly important for a student to be aware of requirements for graduation including General College Program requirements and those necessary to complete a chosen degree program.

Academic advisors can help students plan educational programs and keep up with new courses and programs, but students should not expect advisors to be knowledgeable about the content in detail of the many individual courses throughout the college and the teaching methods and evaluation procedures of the many individual teachers. Further, students are ultimately responsible for adhering to academic policies as stated in this catalog and determining that they have met degree requirements (including general education, major, and minor or concentration requirements).

At the orientation program new students have an opportunity to discuss educational objectives with an advisor who will be knowledgeable in an area of preference and who will help students plan a schedule for the first semester. Shortly after the start of the first semester, students will be assigned an academic advisor.

Students are required to make an appointment with their advisor, prior to course selection, to discuss their academic future, review their mid-semester grade report, and plan a program of study for the second semester. After that meeting, students are required to meet with their academic advisor at least once each semester prior to course selection.

Academic advising will be successful and help students only if they actively seek advice about their education at the College at Fredonia. Advising is one of the obligations of the college teaching profession. Students should not feel they are imposing on their advisors by discussing academic progress more than the minimum requirement of once each semester. Students are encouraged to seek advice as often as needed.

Furthermore, if academic advising is to be successful, students should have confidence in their advisors. If students wish to change advisors, they should contact their department chairperson who will make a new assignment mutually agreeable to students and their new academic advisor.

Questions pertaining to academic advising may be directed to the Office of Academic Advising, 704 Maytum Hall.

Academic Policy and Procedures in Regard to Disabled Students

The College at Fredonia welcomes the federal law requiring colleges to make programs accessible to the otherwise qualified disabled students they admit, including learning-disabled students. It is college policy that such students fulfill the same degree and program requirements as all other students, but that they be given all reasonable help in doing so. Such help may include, but is not limited to, scheduled tutoring, special counseling, extended time for examinations, permission to tape lectures, readers or scribes for tests, and other assistance.

It is the responsibility of students to identify themselves as disabled upon entrance to the college, by notifying the Coordinator of Disabled Student Services. The coordinator and the student will meet to discuss the student's problems on the basis of the clinical diagnosis which has established the existence of a disability. It will then be the coordinator's task to decide what kinds of assistance are necessary in order to ensure that the student is able to participate fully in the academic life of the college.

With the student's permission, the coordinator will contact the appropriate instructors and academic advisors each semester with a list of those accommodations which need to be made in order for the disabled student to pursue the chosen course of study.

The coordinator will also be responsible for facilitating tutorial arrangements, expediting the acquisition of external funds such as vocational rehabilitation monies and, where necessary, recommending appointments with the Counseling Center. It will be the disabled student's responsibility to see the coordinator on a mutually agreed upon basis.

Declaration of a Major Program

In order to complete the college requirements for a baccalaureate degree, every student must complete an approved departmental or interdepartmental major program by satisfactory performance in the courses specified by the program. Students may declare a major before earning 30 semester hours of credit, except in some professional programs, and must make the declaration of program prior to earning 60 semester hours of credit. Information on the declaration of major can be obtained at the Office of Academic Advising, seventh floor, Maytum Hall.

Certain major programs have a minimum quality point average requirement for admission. A minimum 2.50 quality point average is required for admission the major in Elementary Education; and a minimum 2.80 cumulative quality point average is required for admission to the Cooperative Engineering program.

The declaration of major program, as well as changes in the major, should be made well in advance of course selection. The appropriate form is available in the Office of the Registrar and in department offices. The chairperson responsible for departmental programs or the dean responsible for interdepartmental programs will assign students an advisor and will certify at the appropriate time that all program requirements have been completed.

Declaration of a Dual Major

Students who are interested in completing more than one major program must obtain the appropriate form from the Office of the Registrar and secure written approval from the department chairperson or interdepartmental dean of the intended second major. At this time, students should indicate which type of baccalaureate degree they wish to receive, consistent with college requirements.

Additional majors must be declared at least one semester prior to the date of graduation.

Declaration of Concentration or Minor

Students who are interested in declaring a concentration or minor must obtain the appropriate form from the Registrar's Office, then contact the office of the department in which the concentration or minor is requested. The chairperson of that department may or may not assign an advisor for the new program. Students who are interested in declaring more than one concentration or minor program are to follow the procedure outlined above for each one. Minors or concentrations must be declared at least one semester prior to the date of graduation.

75-hour Audit

During the semester in which a student completes 75 cumulative semester hours, the Office of Academic Advising will mail students a Preliminary Degree Audit Form which will help determine progress toward completing degree requirements. It is the student's responsibility to complete the form and, in conjunction with an academic advisor, identify any degree deficiencies.

Course Selection

Course Selection is held during the latter part of the regular spring and fall semesters preceding the semester for which enrollment is sought. The exact dates of course selection will be announced by the Registrar through the mail and in campus publications.

Students wishing to course select must obtain the necessary form from their advisors, who must approve the courses selected. Students will then take the signed Course Selection form to the Registrar's Office in Maytum Hall.

Immediately after the close of course selection, department chairpersons will review rosters of courses whose student demand exceeds class limits. Chairpersons will determine which students will be allowed to remain in the courses. This determination will usually be based on students' majors and/or class level.

Students who are denied one or more of their selected courses will be eligible to attend the Early Change Center, which is held near the end of the semester. At that time, courses that are still open can be added to students' schedules.'

Registration

In addition to participating in the Course Selection period, all students must complete registration according to the directions issued by the Office of the Registrar.

In compliance with the regulations of the Board of Trustees of the State University, students who have not satisfied their financial obligations to the college will not be permitted to register.

Registration must be completed by the end of the first week of classes. After that time, permission to register can be given only by the appropriate dean.

A service charge of \$30 is imposed for registrations taking place after Registration Day.

Student Schedule Changes

Changes in student class schedules must be filed in the Office of the Registrar within the period prescribed by that office.

Students may drop courses through the first week of the semester by obtaining the necessary form and submitting it to the Office of the Registrar. Those courses dropped will be removed from the student's permanent record.

A fee of \$15 will be assessed for each course added after the second full week of classes. This includes transactions involving a switch from one section to another.

Beginning with the second week to the withdrawal date published by the Registrar each semester, a student may withdraw from a course by having the instructor assign a grade of "WP" if the student is passing at that time, "WE" if failing, or "WX" if no grade can be determined. The withdrawal grades will be recorded on the student's permanent record but will not be counted in the student's quality point average.

A fee of \$15 will be assessed for each course drop or withdrawal that takes place after the drop deadline published by the Registrar's Office.

Students will not be permitted to withdraw from courses after the withdrawal deadline published by the Registrar.

Exact dates for the drop and withdrawal periods are given in the college calendar and in the appropriate *Course Offerings Bulletin* and apply to all full-semester courses; a separate section is provided for mini-courses.

Significance of Course Numbers

Courses numbered from 100 to 499 are open to undergraduates. In general, courses numbered 100-199 are taken in the freshman year, courses 200-299 in the sophomore year, courses 300-399 in the junior year, and courses 400-499 in the senior year. There are, however, some variations in this placement according to curriculum and other factors.

Courses numbered from 500 to 599 are graduate courses open to qualified seniors for undergraduate credit by permission of the appropriate chairperson and the Dean of Educational Studies and Graduate Education. Descriptions of 500-level courses will be found in the separate *Graduate Catalog*.

Permission to Take Graduate Courses While an Undergraduate

Undergraduates who have completed 90 credits and whose grade point average is 3.0 or better may be allowed to enroll in suitable graduate courses numbered 500-599. Permission is not automatic, however: in each instance, students must request approval of the department offering the course and of the Dean of Educational Studies and Graduate Education. The forms for this

purpose may be found in the Registrar's Office. Students may use such graduate courses either to meet undergraduate degree requirements or to meet degree requirements in a graduate program they enter at a later time. No course may be used for both purposes by the same person. In no case will an undergraduate be allowed to enroll in a course numbered 600 or above.

Unit of Academic Credit

The semester hour is the unit of academic credit and represents one hour of lecture or recitation or a minimum of three hours of laboratory work each week for one semester.

Course Load

For most undergraduate programs, the normal class load is 15 to 16 semester hours. A student who wishes to carry a class load of more than 19 semester hours must first secure the approval of the chairperson of his/her major department and then the dean responsible for his/her academic program. The minimum class load to be considered a full-time student is 12 semester hours.

Course Prerequisites

Many courses offered by the college are open to any interested student, space permitting. However, some courses have prerequisites - other courses or experiences a student must have had before taking the course in question, in order to understand it. A few courses have corequisites, which must either be taken before or together with the course in question. Information about pre- and corequisites is given in the course descriptions in this catalog. Students are responsible for having fulfilled any prerequisites before enrolling for a course. Instructors may exclude students who have not done so.

Course Auditing

Course auditors will not be enrolled or listed on the course's roster. Audited courses offer no credit, impose no requirements, and require no fees. No person may be an auditor in any foreign study program or course. Interested persons should contact the instructor to secure permission to audit a course.

Class Attendance

At Fredonia students will experience a variety of educational styles and opportunities. Attendance is expected in all classes. Some courses will require attendance. Some courses will base a part of the grade on attendance and participation. Other courses will have no formal requirements concerning attendance. Instructors will indicate as a part of the course syllabus what the attendance policy will be.

It is the student's responsibility, if absent, to find out what material was covered, what assignments were given, and what announcements were made in class during the period of absence.

Because the college is concerned about the welfare of its students and wishes to provide assistance in case of absence for valid reasons, students are encouraged to notify the Office of Student Affairs in the event of an unusual series of absences due to health or personal reasons. The office will then notify instructors.

Each instructor is responsible for establishing a policy concerning cases in which regularly scheduled graded work is missed and for determining whether the reason for having missed such work is valid. The instructor may make that determination based on discussion with the student or may request that the student obtain a note from the Office of Student Affairs attesting to the reason for missing the work. If the instructor determines that a student has a valid reason for missing the work, the instructor may choose to give the student an opportunity to make it up or may, in exceptional cases, base the grade for the course on other work. In the event of a disagreement over the validity of the absence, the student may appeal to the instructor's chairperson. When a student is directly participating in a college-sponsored program that takes him/her away from classes, the department sponsoring the program will provide the student with documentation indicating the activity in which the student is involved and the date(s) and time(s) of that involvement. Such participation will be considered a valid reason for missing the work. Thus, instructors may offer the student an opportunity to make up the work or may, in exceptional cases, base the grade for the course on other work. In the event of a disagreement over the validity of the absence, the student may appeal to the instructor's chairperson or supervisor. If a student

anticipates having to miss regularly scheduled graded work, the student should contact the instructor ahead of time. The instructor may expect the student to complete the work before the scheduled time when that is feasible. If a student misses the final examination for a course because of illness or some other cogent reason, and a make-up cannot be scheduled in time, the student will receive a grade of incomplete.

If a student must be absent due to religious beliefs, he/she has the right to make up examinations, etc. For full details, see page 193.

Final Examinations

Final Exam Schedule-A tentative schedule of final examinations is published in the *Course Offerings Bulletin*. Requests from instructors for deviations from this schedule (group examinations, room changes, or time changes) must be approved by the Registrar. The Registrar's Office will publish an updated schedule at least three weeks prior to finals week. Once this schedule has appeared, no changes can be made.

Final examination week is part of the regular semester and should be interpreted in that context. Students who are asked to take final examinations (variously interpreted as terminal, non-comprehensive, etc.) prior to regular examination week are put at a decided disadvantage. Faculty members who do not give final examinations during the regular period scheduled for such examinations are expected to use that period for review or to utilize the time in some formal way in a classroom setting.

All students have the right to take their final examination at the time scheduled by the Registrar's Office.

Three-Finals-In-One-Day Conflict-It is college policy that students not be required to take three final examinations in one day. However, the published final examination schedule may contain some three finals-in-one-day conflicts. In this situation, a student has the right to take one of the examinations on a different day.

1. If the conflict arises due to an individual professor rescheduling his/her final examination from the time initially scheduled in the semester's *Course Offerings Bulletin*, it is the responsibility of that professor to arrange for an equivalent examination for the student at a suitable time during examination week. If a suitable time is not agreed to, the student may appeal to the chairperson of the department in which the course is taught.:
2. If the conflict arises due to the scheduling of a group examination for several sections of the same course, the department scheduling the group examination must make equivalent examinations available to students for whom the scheduled group examination creates a three-finals-in-one-day conflict. When a student finds that a group examination creates such a conflict, he/she shall meet with the chairperson of the department scheduling the group examination who will arrange for the equivalent examination to be given to the student at a suitable time during examination week. If a suitable time is not agreed to, the student may appeal to the dean responsible for the area in which the course is taught.
3. If a conflict arises from neither of the above reasons and if a student is taking one of the three courses in his/her major field, it is the responsibility of that instructor to arrange for an equivalent examination to be given to the student at a suitable time during examination week. If a suitable time is not agreed to, the student may appeal to the department chairperson.

Students should resolve any three-finals-in-one day conflicts before the beginning of examination week.

Assessment Examinations or Questionnaires

The College at Fredonia regularly assesses its academic programs as part of its constant effort to improve them. Program assessment often involves testing students to measure their accomplishments in relation to program goals, or questioning them about their experiences and reactions. Usually, the results of the tests and questionnaires do not, become part of the student's record, but rather help the college measure the success of its teaching and course requirements. In other words, student views and outcomes provide information that is essential if the college is to

help students learn more effectively. Accordingly, all students are expected to take assessment examinations or answer assessment questionnaires if they are chosen to do so.

Pass-Fail Option

The Pass-Fail Option permits a student, with the advisor's approval, to take certain courses beyond the program major requirements without competitive grade and quality point risk. Within the limitations given below, students may enroll for courses as free electives on the pass-fail basis:

1. Courses at the 100 level and courses taken as part of the professional semester, as part of the requirements for a concentration or a minor or in the General College Program, and courses to be applied to the major requirements may not be taken pass-fail. Departments may designate other courses as not applicable to the pass-fail option; such courses are identified in the *Course Offerings Bulletin*.
2. Completion of a minimum of 39 semester hours toward the bachelor's degree is required before enrollment in pass-fail courses.
3. Quality points will not be used for pass-fail courses when the student receives a passing grade. However, a failing grade will carry the usual penalty for failure in a course.
4. No more than 16 semester hours in fulfillment of degree requirements may be taken on a pass-fail basis; no more than two such courses may be taken in any one semester. All courses taken as pass-fail are counted towards the 16 hour maximum whether the student receives a P or an F.
5. In the event a student transfers to a department in which he or she has taken a pass-fail course, the new major department may set forth additional requirements in order to establish a relative grade for the course.
6. Pass-fail applications are available in the Office of the Registrar. A student who decides to enroll on a pass-fail basis is required to obtain his or her advisor's signature on the application within the three-week period following the beginning of the semester. He or she may not thereafter change status in the course(s).

Course Repeat Option

A student may apply to repeat a course, under this option, and have the first grade replaced with the code letter "R." The cumulative quality point average will be computed using the grade for the second attempt. This option may be exercised only once for a given course. A course originally taken for a grade cannot be retaken on a pass-fail basis.

Course repeat forms are available in the Office of the Registrar and may be filed after the mid-point of the semester and prior to the final three weeks of the semester.

Course Challenge Option

Challenging a course means that the student seeks to demonstrate that he/she has the degree of knowledge and/or proficiency sufficient to pass the course being challenged. The student, who need not be enrolled in the course, requests the option in writing to the chairperson of the department offering the course. If the request is granted, the department determines in what way the student is to demonstrate his/her knowledge and/or proficiency. If, in the department's opinion, the student's performance is adequate, the chairperson recommends to the Registrar that the student be awarded credit for the course. No grade is given, and the student's quality point average is not affected.

Credit by Examination

The college participates in, three examination programs: the College Proficiency Examination Program of the New York State Education Department, Albany, N.Y.; the Regents College Examination Program; and the College Level Examination Program of the College Entrance Examination Board, Northeastern Regional Office, 475 Riverside Drive, New York, N.Y. Enrolled students must obtain prior approval before scheduling an examination. Students should contact the testing agency directly for more information.

Transfer Credit

Enrolled students must secure prior approval from the chairperson of their major program (or department of advisement), from the chair of their minor, if applicable, and from the Registrar,

before credit taken at another college or university will be transferred to the student's record here. Students applying for such approval should provide the chairperson and Registrar a copy of the course description from the other college catalog. In the event that the course is to be used for GCP credit, approval of the Dean for Liberal Studies is required. Transfer Credit Approval forms are available in the Office of the Registrar.

A student who wishes to take a course at another college and have the credit substitute for a course already taken at the College at Fredonia must secure prior approval from the chairperson of his or her major program (or department of advisement) and have the chairperson certify that the course to be taken is the equivalent of the course the student wishes to repeat. For this option, transfer credit is accepted only if the student receives a "C" or better for the course being repeated and transferred. In that case, the credit (not the grade) will be noted on the transcript, and the last College at Fredonia grade for the equivalent course will be changed to an "R."

Credit for non-collegiate sponsored instruction will be awarded at the discretion of the Registrar, following consultation with department chairpersons as appropriate. Where applicable, the guidelines found in *College Credit Recommendations* (published by the Board of Regents/State Education Department) should be followed.

Credit will be subject to these limitations:

1. It is to be considered transfer credit.
2. It is elective credit. The student has the right to petition the department chairperson for credit toward his or her major, or the Dean for Liberal Studies for fulfillment of General College Program requirements.
3. A maximum of 12 hours may be counted toward graduation.
4. Consistent with college policy, physical education credits should be limited to 4 hours, and military science to 12 hours. If the student has taken Fredonia course work in either of those areas, then the allowance for non-collegiate work should be reduced accordingly.

Student Classification

Students are given class designation according to the number of credit hours successfully completed as follows:

Freshman	Less than 24 hours
Sophomore	24-56 hours
Junior	57-88 hours
Senior	89+ hours

Grading System

Each student's progress is evaluated and reported four times a year - at mid-semesters (October and March), and at the end of semesters (December and May). The symbols used to record achievement on the permanent record card of the student at the end of each semester are as follows:

A	Superior
A-	
B+	
B	Above Average
B-	
C+	
C	Average
C-	
D+	
D	Passing
D-	
E	Failing
F	Failing while electing Pass-Fail Option
I	Incomplete, given when a student, because of illness or other cogent reasons, is unable to complete the requirements of the course. These requirements must be satisfied before the end of the next regular semester or an earlier date set by the instructor; otherwise the I becomes an E on the permanent record.
P	Satisfactory completion of courses under the Pass-Fail Option. "P" does not count as part of the cumulative quality point average or total; it does, however, count toward completion

- of requirements.
- R Indicates course has been repeated.
- S Satisfactory completion of requirements.
- U Unsatisfactory performance or failure. The letters S and U are used of student teaching and certain other courses, including some independent study and skill courses. The S does not count as part of the cumulative quality point average or total; the U, however, reflects hours carried with zero quality points. In contrast to Pass/Fail, Satisfactory/Unsatisfactory grades are given as departmental options for certain courses, and require that the instructor prepare an appropriate supplemental evaluation of each student's performance to be filed with the department.
- W Indicates withdrawal from college.
- WE Withdrawal from a course while failing. 'WP Withdrawal from a course while passing.
- WX Withdrawal from a course, grade undetermined.
- X Indicates continuing enrollment in a course that continues past the end of the semester. An X grade that has not been converted to a credit bearing grade by the end of the second regular semester after the semester for which the X was given will change to an E grade.
- Y Indicates a passing grade in a course taken in a semester accepted for "academic bankruptcy."
- Z Indicates a failing grade in a course taken in a semester accepted for "academic bankruptcy."

Student Appeals of Grades

A student who feels that a grade reported for him/her is incorrect has the right of appeal by the following procedure:

1. He or she first discusses the grade with the instructor.
2. If, after this discussion, the student is still unsatisfied, he or she may take, his or her case to the chairperson of the department.
3. If the chairperson decides that the student's case merits further investigation, he or she appoints an ad hoc committee composed of two members of the faculty in the department, other than the faculty member involved, and one student who is a major in the department.
4. The committee reviews the case, interviews the student and the instructor separately, and reaches a judgment by majority vote. This judgment is communicated to the chairperson, who, in turn, reports it to the student and the instructor.
5. If a change of grade is recommended by the committee, the instructor may initiate a change, or the committee's recommendation is forwarded to the appropriate dean and the Vice President for Academic Affairs for their consideration. The Vice President for Academic Affairs may modify the grade if the committee so recommends.

Plagiarism

To plagiarize is "to steal and pass off as one's own the ideas or words of another (*Webster's Seventh New Collegiate Dictionary*). Examples of plagiarism include presenting the ideas of another in one's own words without crediting the source; copying sentences, paragraphs, or pages from a source without explicit reference to the pages from which the words were taken, and, of course, presenting another's entire work as one's own. If a student is not certain whether a particular practice may be considered plagiaristic, it is his/her responsibility to consult the teacher for whom he/she is writing the paper, exercise, or examination. The College at Fredonia strongly condemns plagiarism and takes severe action against those who plagiarize. For procedures, see page 192.

Quality Point Average

The quality point system is used to indicate a student's overall academic average.

Each course grade of:

- A carries 4.0 quality points per semester hour
- A- carries 3.7 quality points per semester hour
- B+ carries 3.3 quality points per semester hour
- B carries 3.0 quality points per semester hour
- B- carries 2.7 quality points per semester hour

C+	carries 2.3 quality points per semester hour
C	carries 2.0 quality points per semester hour
C-	carries 1.7 quality points per semester hour
D+	carries 1.3 quality points per semester hour
D	carries 1.0 quality points per semester hour
D-	carries 0.7 quality points per semester hour

Course grades of E, F, P, R, S, X, and U carry no quality points.

The quality point average for a semester is determined by dividing the total quality points earned by the number of hours carried that semester; the cumulative quality point average, by dividing the total quality points accumulated to this point in the student's college career by the total number of hours carried, including courses failed.

Hours earned for courses with P, X, and S grades are not included in figuring the semester or cumulative average; hours failed (grade of E, F, and U) are.

Consult each individual department on its policy for calculating quality point average in the major or minor.

Dean's List

About one month after the end of each semester, the college announces the names of students who are recorded on the Dean's List. The list includes all students who have earned a quality point average of 3.25 or higher for that semester with a course load of at least 12 credit hours. (Courses with P or S grades are not included in the 12 hours.)

Academic Standing and Probation

The term "in good academic standing" means that a student is eligible or has been allowed to register for and undertake academic course work for the term in question. The mechanism of academic probation, including any accompanying constraints upon a student's activities, is intended merely as an educational device to encourage greater effort on the part of students who appear to be having difficulty in meeting certain academic standards. Placement on academic probation *may* precede denial of the right to register for academic course work if certain conditions are not met, but a student on academic probation is considered to be in good academic standing. Any question concerning whether or not an individual student is in good academic standing will be determined by the campus committee on academic standards.

The Scholastic Standings Committee has adopted the following regulations governing academic standing:

- (a) A student will be placed on probation if
 - 1) the cumulative quality point average falls below a 2.00
 - 2) the quality point average falls below a 2.00 for two consecutive semesters.

A student on academic probation is required to meet with a probation advisor (generally the chairperson of the student's major department) a minimum of three times during the probationary semester.

- (b) Probationary status is determined in accordance with the above standards and is not dependent upon official notification.
- (c) "Good academic standing" is defined as maintaining a cumulative quality point average at or above the appropriate level in (a) above or being on probationary status.
- (d) A student normally will be required to withdraw if at the end of a semester of probation the cumulative quality point average is still below the levels stated in (a).
- (e) A first semester student may be required to withdraw if his/her quality point average falls below 1.20.
- (f) Students whose record of achievement becomes academically irreparable may be dismissed without a semester of probation.

At the close of each semester the Scholastic Standings Committee reviews the record of each student whose cumulative quality-point average places him/her within the range of Required

Withdrawal or Probation. The Scholastic Standings Committee is comprised of the Academic Council of Deans, the Dean of Students and/or designee, and the Registrar. The chairpersons and directors of those departments and special programs whose students are being considered assist in this review. A student may appeal the decision of the Scholastic Standings Committee to the respective academic dean.

Leave of Absence Policy and Continuing Enrollment

A student who is in good academic standing and who has maintained a 2.0 or better quality point average in courses required in his/her major may apply for a leave of absence, usually at the end of the semester. A leave of absence form can be obtained in the Office of Student Affairs. Approval of leaves of absence must be made by the appropriate department chairperson and the Office of Student Affairs. Ordinarily, a leave is for one semester or one academic year. Students wishing to return after a leave of absence must contact the Registrar's Office at least a month before registration. Students wishing to course select should consult with the Registrar's Office for pertinent dates (usually November and March). A student who voluntarily terminates enrollment at the college but fails to formally apply for a leave of absence will be required to apply for re-admission if he or she wishes to resume enrollment at the college.

Withdrawal and Honorable Dismissal

A student who finds it necessary to leave the college before the end of a semester must withdraw officially through the Office of Student Affairs. Students may withdraw for any reason up to the period of three weeks prior to the end of the semester *STUDENTS WILL BE PERMITTED TO WITHDRAW DURING THE FINAL THREE WEEKS OF THE SEMESTER ONLY DUE TO ILLNESS OR OTHER COGENT REASONS AS DETERMINED BY THE OFFICE OF STUDENT AFFAIRS*. Failure to follow the required procedure may prejudice the right to an honorable dismissal and to any refunds. Those enrolled in any federal program of veterans benefits must also notify the Veterans' Affairs Office (3176 Mason Hall) of their withdrawal.

A student withdrawing during a term may be eligible for certain refunds as described on pages 36-37.

Academic Bankruptcy

Prior to graduation, an undergraduate student may petition the Office of the Vice President for Academic Affairs for one semester of "academic bankruptcy." The student must have a minimum quality point average of 2.00 at the time the petition is filed and must have accumulated at least one semester after the semester for which academic bankruptcy is sought. If the petition to bankrupt a semester is granted, the student's grades for the chosen semester will be converted to Y for grades of D or better, and to "Z" for E grades. This policy may be applied only to one semester of work completed at the college. Academic bankruptcy is intended to assist the student who normally maintains adequate academic standards and whose grades have suffered for one semester due to unusual or unfortunate circumstances. Although the Y grade does not carry any quality points, the credit hours for courses receiving Y grades will count toward the total needed for graduation and may apply toward the totals needed for the requirements for the major, minor or concentration. The student is advised to consult with the appropriate department *before* requesting this option.

Readmission Petition

Students with a cumulative quality point average of less than 2.00 who have been readmitted to the college may be reinstated with their original cumulative academic record or with a readmission petition.

Under the readmission petition, a new quality point average is established from the time of readmission to graduation. The total academic record achieved from the time of initial enrollment at the College at Fredonia will be entered on the transcript, but no credit will be awarded for "D" grades earned prior to readmission. The cumulative quality point average will reflect only the average since readmission, and a minimum of 60 additional credit hours of graded work must be attained prior to graduation and after readmission.

The Readmission Committee will review each application to determine readmission status.

Programs	Curriculum Code	Hegis Code
Accounting	238	0502
Anthropology	240	
Art:		
Studio/History	2 0 2	1002
B .F.A	201	1002
Biology	225	0401
Business Administration	237	0506
Chemistry	2 26	1905
Communication	242	0601
Computer and Information Sciences	241	0701
Cooperative Agriculture	223	
Cooperative Engineering	222	
Cooperative Special Educ	118	0808
Early Childhood Education	101	
Earth Science: B.A	219	1917
Economics	216	2204
Elementary Education N-6	100	0802
English	203	1501
French	204	1102
Geochemistry	220	1915
Geology	227	1914
Geophysics	224	1916
German	212	
Health Services Admin	239	1202
History	213	2205
Industrial Management	235	0599
Mathematics	221	1701
Mathematics-Physics	2 29	1799
Medical Technology	231	1223
Music-Applied	2 05	1004
Music		
Composition	346	1004
Performance	340	1004
Music Education K-12	152	0832
Music History and Literature	210	1006
Music Theory	206	1004.10
Music Therapy	348	1099
Musical Theatre	232	1004
Philosophy	217	1509
Physics	228	1902
Political Science	214	2207
Psychology	207	2001
Recombinant Gene Tech	243	0499
Sociology	215	2208
	Curriculum Code	Hegis Code
Programs		
Sound Recording Tech	347	
Spanish	209	1105
Special Studies: B.A	300	4901
B.S	301	4901
General	315	4901
Speech & Hearing Handicapped	117	0815
Teacher Certification Areas		
Biology 7-12	127	0401.01
Chemistry 7-12	128	1905.01

Earth Science 7-12	131	1917.01
English	12 0	
N-9	0804.01	
7-12	1501.01	
French	122	
N-9	0804.05	
7-12	1102.01	
General Science	0804.04	
German	12 3	
Mathematics	126	
N-9	0804.03	
7-12	1701.01	
Physics	129	1902.01
Social Studies	125	
N-9	0804.02	
7-12	2201.01	
Spanish	124	
N-9	0804.07	
7-12	1105.01	
Theatre Arts: B.A	230	1007
B.F.A	233	1007
Time-Shortened		
Degree: 3-1-3	199	
Undeclared	000	
Special Programs:		
Continuing Ed	003	
U.B. Nursing	004	
Visiting - 1 Sem	005	
Visiting - 2 Sem	006	
Empire State	007	
J.C.C. North Prog	009	

Requirements for the Bachelor's Degree

Graduation from the college with the award of the appropriate degree (Bachelor of Arts, Bachelor of Arts in Special Studies, Bachelor of Science, Bachelor of Science in Education, Bachelor of Science in Special Studies, Bachelor of Fine Arts, or Bachelor of Music) will be granted to students who fulfill the following requirements.

1. They must earn a minimum of 120 credit hours.
2. They must complete all required courses in a particular major program, the general education requirements of the General College Program, and sufficient elective credits to make up the total required credit hours, with a minimum cumulative quality point average of 2.00. The student must also have a minimum cumulative quality point average of 2.00 in courses required for his/her major, minor, and concentration. See department sections for any variation from this requirement.
3. Except for certain programs, students pursuing the B.A. degree must earn a minimum of 75 hours in credits from disciplines other than their major discipline. For the B.S. degree, the minimum is 66 hours. For either the B.A. or B.S., students in multidiscipline major programs may not apply more than 45 hours in any one discipline toward credits needed for graduation.
4. All students must take a minimum of 45 semester hours at the College at Fredonia.
5. Under ordinary circumstances, students will have 10 consecutive years during which to complete the requirements for the undergraduate degrees in effect at the time they began their studies. If they wish to complete the degree after 10 years, their record of studies will be reviewed by the chairperson of the academic department in which their major falls, and by the Dean for Liberal Studies, to determine how much of their earlier credit is still applicable. This rule applies not only to credit earned at the College at Fredonia, but also to credit transferred to Fredonia from other colleges.

This policy notwithstanding, to the extent that certifying agencies change the requirements for a particular degree within the student's original 10-year period or later, students will be bound by the new requirements of the agency.

6. Candidates in a program leading to certification to teach in New York State must satisfactorily complete all student teaching requirements. No grade less than S gives credit in student teaching.
7. Music students must meet certain accompanying and performance standards, and secondary instrument competencies. Details on these requirements may be secured from the School of Music.
8. Students must meet , all their financial obligations to the college and any or all of its supporting agencies.
9. A student who expects to graduate at a given date must make application through the Registrar's Office, not later than the second full week of Classes of the final semester of attendance.

NOTES: Only 4 credit hours of physical education activities courses (100-level courses) may count toward the total number of credit hours needed for graduation. Accounting majors may not use any health/physical education courses toward the 120 hours required for graduation.

A maximum of 24 credit hours of internship credit may count toward the number of credit hours needed for graduation.

No more than 12 hours of military science credit may be applied as elective credit toward degree requirements.

Credit for a course may not be counted more than once, unless the course has been designated by the department as an exception to this rule.

Requirements for a Second Baccalaureate Degree

1. College at Fredonia graduates seeking an additional bachelor's degree must take a minimum of 30 semester hours at the college and must successfully complete the requirements of their additional major or program.
2. New students seeking an additional bachelor's degree must take a minimum of 45 semester hours at the College at Fredonia and must successfully complete the requirements of their additional major or program.
3. The student must have a minimum cumulative quality point average of 2.00 in all courses required for the second degree and in courses required for the second major or program. See the department sections for any variation from this requirement.
4. Students must meet all their financial obligations to the college and any or all of its supporting agencies.
5. A student who expects to graduate at a given date must make application through the Registrar's Office, not later than the second full week of classes of the final semester of attendance.
6. State University of New York policy requires that a second baccalaureate degree be markedly different from the first baccalaureate degree; e.g., a student could not receive degrees in both accounting and business administration. However, such a student could be readmitted to the college to pursue a second major.

Graduation With Honors

Students whose cumulative quality point average indicates high scholastic attainment will be awarded the degree as follows:

1. *Summa Cum Laude*- Quality Point Average 3.7 or higher.
2. *Magna Cum Laude* - Quality Point Average between 3.50 and 3.69.
3. *Cum Laude* - Quality Point Average between 3.25 and 3.49.

Students may graduate with honors only when they have completed at least 45 hours of graded work at the College at Fredonia. Graded work includes all courses which carry quality points and excludes courses which are graded "satisfactory-unsatisfactory" or "pass-fail."

Only those credits earned at the College at Fredonia will be computed in the final average.

Transcripts of Record

Upon request by the student, the Registrar will forward an official transcript to another college or university, a school system, a government agency, or a corporation. A fee of \$5 is charged for each transcript requested. Students are urged, because of the large number of requests, to make application for transcripts well before the date on which they are needed. Three weeks should be allowed during peak periods. Transcripts are not issued during the week prior to registration, during registration week, or during final examination periods.

Name Changes

A student whose name is changed should report the change to the Registrar.

Observance of Regulations and Standards

All students are expected to observe the regulations and standards governing student life, both in and out of the classroom. Failure to do so may be considered grounds for suspension or dismissal. Each student should read with care the full statement on Student Rights and Responsibilities, pages 187-194.

Liability

The college is not responsible for loss or damage to personal property by fire, theft, or any other cause on college property or in any off-campus housing facility.

Student Retention

It is important to recognize that students withdraw from college for various reasons; academic, medical, personal, social and financial problems are among those reasons. Completion of degree requirements in more than four years does not necessarily mean continuous enrollment during this interval, but rather reflects the time span measured from the student's initial entering date to graduation and, where appropriate, includes interruptions in attendance. The College at Fredonia has undertaken retention studies to determine entering freshmen cohort return and graduation rates. At the end of the first year, 87 percent of the freshmen remained enrolled for the second year. Most recent data reflect the proportion of freshmen completing their baccalaureate degree at the College at Fredonia to be 41 percent within four years, 54 percent within five years, and 56 percent within six years from their date of entrance.

Approximately 55 percent of transfer students entering the college at the upper division level (junior year) completed their bachelor's degree requirements on time, within two years after entering.

Detailed outcomes are available from the Office of Institutional Studies, Room 80B, Maytum Hall.

STUDENT RIGHTS AND RESPONSIBILITIES

Regulations Governing

Student Conduct and Community Standards of Behavior

Pursuant to the Resolution of the Board of Trustees of the State University of New York, dated May 11, 1967, and Section '356 of the State Education Law, and after consultation with the College President, representatives of the faculty, and students, the Council of the State University of New York College at Fredonia establishes and promulgates the following regulations covering the conduct and behavior of students.

Attendance at this college is a privilege afforded the student by the State of New York and not a legal right. The determination of a student's fitness to be admitted to the college and to continue as a student has been entrusted by the Board of Trustees of the State University to the College President and his/her staff.

General

Students seeking knowledge and understanding also need freedom to inquire, to exchange ideas through discussion, publication and public presentations. These opportunities are basic to education in' and for a democratic society. To insure these freedoms the college requires a community free from violence, threats, and intimidation; protective of free inquiry; respectful of the rights of others; open to change; supportive of democratic and lawful procedures; and dedicated to the rational and orderly approach to the resolution of human problems. In exercising freedoms and in discharging the rights and obligations of citizenship, students must also recognize their responsibilities to other individuals, to the college, to the state and the nation, and to society in general. Orderly and dignified expression and conduct are expected.

In protection of these freedoms the college must establish certain standards of personal and group conduct. The college may apply sanctions or take other appropriate action when the conduct of individuals or groups on or off campus directly or significantly interferes with the freedom to teach and learn, the safety and health of persons in the community, the maintenance or protection of property, the provision of living accommodations and other services, and the sponsoring of non-classroom activities such as lectures, concerts, athletic events, and social functions.

Counseling, guidance, and rehabilitation are the preferred means for resolving behavior problems. Although disciplinary proceedings play a secondary role in resolving such problems, violation of the Standards of Behavior listed below may result in privilege restriction, suspension, or dismissal.

Specific Standards of Behavior

1. *Personal Identification and Representation* Failure to act in accordance with these standards must be treated as a major failure to accept responsibility as a student and may make one subject to separation from the community. Prohibited are:
 - (a) Willfully furnishing false information to college offices, officials, or judicial boards.
 - (b) Willfully providing incomplete information (with the intent of deceiving) to college offices, officials, or judicial boards.
 - (c) Willfully failing to appear before a college official or judicial board when properly notified to appear.
 - (d) Making, forging, printing, reproducing, copying, or altering any record, document, writing, or identification used or maintained by the college when done with intent to injure, defraud, or misrepresent.
 - (e) Willfully refusing to identify one's self when requested by an authorized college official having just cause. Students are expected to carry their college identification cards at all times.
 - (f) Transferring one's own college identification card to another person for the purpose of obtaining college services or privileges.
 - (g) Acting to obtain a college privilege or service to which the student is not entitled.
 - (h) Willfully providing erroneous information concerning a change' in status concerning financial refunds or financial independence from parents or legal guardian.
2. *Interference with Health, Safety, or Rights of Other Persons* All members of the college community share the responsibility for protecting and maintaining community health and

safety and the rights of other persons. Students are required to obey the statutes and laws of the nation and the state, as well as the ordinances and laws of the village of Fredonia, city of Dunkirk, and towns of Pomfret and Dunkirk. Conviction of a violation of such laws, statutes, or ordinances may be grounds for suspension or dismissal.

Specifically prohibited are:

- (a) Failing to comply with instructions of college or town officials having just cause to issue the instructions (e.g., faculty, staff, security, safety, or fire officials carrying out properly assigned responsibilities).
 - (b) Willfully failing to comply with the final decision of a judicial board or administrative action.
 - (c) Misusing safety equipment or procedures including but not limited to tampering with fire equipment, fire alarms, exit lights; refusal to obey a fire alarm, initiating a false fire alarm, or submitting a bomb threat.
 - (d) Fighting and threats to, physical abuse of, or harassment which threatens to or does endanger the health, safety, or welfare of a member of the college community. Breaching the peace; obstructing or disrupting teaching, administrative or public service functions of the college; obstructing or disrupting disciplinary proceedings or authorized college activities.
 - (e) Engaging in any action or situation which recklessly or intentionally endangers the mental or physical health of a member of the college community; creating a situation that results in discomfort of, or harassment of or excessive ridicule of a member of the college community. (Education Law, section 6450 prohibits any individual or organization from engaging in any form of hazing, which recklessly or intentionally endangers the mental or physical health or involves the forced consumption of alcohol or drugs for the purpose of initiation or affiliation with any organization note Policy Statement on page 190).
 - (f) Participation in any form of non-consensual sexual intimacy and unwanted physical sexual conduct (note Policy Statement on page 190).
 - (g) Possessing firearms, explosives (including firecrackers), articles or substances usable as weapons or as means of disrupting legitimate campus functions, activities, or assemblies, or with the intention to disrupt.
 - (h) Illegally using, possessing, selling, or distributing narcotics, stimulants, depressants, hallucinogens, marijuana or its derivatives.
 - (i) Participating in illegal activities such as gambling, games of chance, or those involving alcoholic beverages.
 - (j) Use of loudspeakers or other sound amplifying equipment without clearance as to time and place from the Office of Student Affairs.
 - (k) Posting of posters, handbills, or notices without permission of the appropriate college official.
 - (l) Smoking in non-smoking areas so designated by the College President or his/her designee.
 - (m) Willfully ignoring reasonable standards of cleanliness, appropriate behavior, appearance and grooming.
 - (n) Engaging in cheating, plagiarism, or collusion on any examination or on assigned work.
 - (o) Willfully refusing to accept financial obligations incurred as a student enrolled at the college. (The college is empowered to refuse to register, graduate, or release records of any student who is delinquent in his/her obligations to the college.)
3. *Care of College and Personal Property* Maintaining and preserving college grounds, academic buildings, resident and dining facilities, and other associated structures is an obligation of all members of the college community. Similarly, maintaining and preserving personal property is also an obligation.
- Prohibited are:
- (a) Vandalism, theft, or embezzlement of, destruction of, damage to, unauthorized possession of, or inappropriate use of property belonging to the college, a member of the college community, or a campus guest.
 - (b) Destruction, mutilation, and defacement of or tampering with books, magazines, or other library materials or equipment.
 - (c) Unauthorized occupancy of or trespassing on college property or facilities.
4. *Demonstration or Other Group or Individual Action* The campus must be open to a free exchange of ideas; therefore, all members of the community are expected to conduct dialogues with mutual respect and courtesy. Prohibited are:
- (a) Willfully denying to other students, officials, employees, or invited guests of the college lawful freedom of movement on the campus, lawful use of the property or facilities of the

college, or the right of lawful entrance to and exit from any of the college's facilities.

(b) Willfully impeding the staff or faculty of ; the college in the lawful performance of their duties, or willfully impeding any student of the college in the lawful pursuit of his or her legitimate educational or social activities, through the use of restraint, coercion, or intimidation, or when force and violence are presented or threatened.

(c) Engaging in any intentional overt activity resulting in the obstruction to, disruption of, or interference with any of the legitimate missions, processes, procedures, or functions of the college.

(d) Refusing to vacate a building, street, sidewalk, driveway, or other facility of the college when directed to do so by an authorized official of the college having just cause to order such vacation.

(e) Making unnecessary noise or causing noise to be made with objects and instruments which disturb classes, meetings, study, sleep, or authorized activities.

College Policies

Policy Statement on Hazing and Initiation or Affiliation with any Organization

The purpose of this policy is to specifically clarify those behaviors and activities which constitute violations of college regulations and New York State laws pertaining to hazing, and to provide some guidance to student organizations in designing new member activities which serve to protect the human dignity of all persons and which will be permitted by the college. This policy applies to all members of a student organization including alumni members. No organization may engage in any form of hazing as defined in the following:

Hazing in the First Degree

A person is guilty of hazing in the first degree when, in the course of another person's initiation into or affiliation with any organization, he/she intentionally or recklessly engages in conduct which creates a substantial risk of physical injury to such other person or a third person and thereby causes such injury. Hazing in the first degree is a Class "A" misdemeanor.

Hazing in the Second Degree

A person is guilty of hazing in the second degree when, in the course of another person's initiation into or affiliation with any organization, he/she intentionally or recklessly engages in conduct which creates a substantial risk of injury to such other person or a third person. Hazing in the second degree is a violation.

Hazing is defined as engaging in any action or creating a situation intentionally or unintentionally designed to produce mental or physical discomfort, harrassment, or excessive ridicule in the course of another person's initiation into or affiliation with any organization.

The College at Fredonia reserves the right to revoke recognition of any student organization or club which is found to have violated these rules. Appropriate review of alleged violations may include review by the Dean of Students and the college Judicial Board. Member organizations of the InterGreek Council may also be reviewed by the IGC Judicial Board. Revocation of recognition may not preclude the imposition of the college Judicial Board; but when considered by the Dean of Students to be serious in nature, could result in immediate suspension of organizational recognition until such time as the allegations have been appropriately adjudicated.

Policy Statement on Sexual Assault

The Fredonia campus will not tolerate sexual assault in any form, including acquaintance rape. Where there is probable cause to believe that the campus' regulations prohibiting sexual assault have been violated, the campus will pursue strong disciplinary action through its own channels. This discipline includes the possibility of suspension or dismissal from the college.

A student charged with sexual assault can be prosecuted under New York State criminal statutes and disciplined under the campus' code of student conduct. Even if the criminal justice authorities choose not to prosecute, the campus can pursue disciplinary action.

A student may be charged under Section 2(f) of the Regulations Governing Student Conduct and Community Standards of Behavior.

Policies on Alcoholic Beverages

College philosophy, is that alcohol, a drug socially accepted by many, can be used abusively. Members of the college community will be held accountable for inappropriate behavior while under the influence of alcohol. Supportive services will be made available for those whose consumption is abusive to themselves or to others.

The policies listed below, to be followed for consumption and use of alcoholic beverages at the College at Fredonia, are not totally inclusive and do not cover all possible legal implications of the possession, consumption, and sale of alcoholic beverages. College policies and applicable state laws are outlined below:

1. Possession and sale of alcoholic beverages is limited to individuals of legal purchase age in New York State. Any person who misstates or misrepresents his or her age through the presentation of false documents is in violation of the law and of college policy.
2. Possession of alcoholic beverages in any college building on the campus is prohibited except as hereafter provided:
 - (a) The President of the college or his/her designee is authorized to grant permission for the serving and consumption of alcoholic beverages for specified events and under such conditions as in his/her discretion he/she may determine. The exercise of such authority is wholly discretionary and may be suspended at any time by the President of the college or his/her designee.
 - (b) As allowed by the Alcoholic Beverage Policies and Guidelines for Events, adopted by the College Council in April 1980, and modified January 1990, all organizations, clubs, or groups sponsoring events in college facilities where alcoholic beverages will be served must adhere to the rules and regulations stated in this document. Copies of the guidelines are available upon request through the Office of Student Affairs or the Campus Center Student Activities Office.
 - (c) Alcoholic beverages sold pursuant to the New York State Liquor Law License granted to the Faculty Student Association.
 - (d) Students and guests who are of legal purchase age or older may possess alcoholic beverages in moderation in their private rooms and commons areas in the residence halls, subject to all regulations which may be established by the Office of Residence Life.

Procedures and Policies of the College Judicial Board

Community Standards of Behavior are designed to promote student growth and to preserve the atmosphere of learning necessary to the well-being of all students. These standards and procedures shall be implemented only through the Office of Student Affairs and Judicial Boards duly authorized by the Office of Student Affairs.

Any member of the college community may bring a complaint directly to the Office of Student Affairs which administers the judicial system. Specific procedures to be followed if a case is referred to the Judicial Board are:

1. Any charge for violations may be placed against any student by any other student or any member of the college community by giving written notice of the charge signed by the complainant to the Judicial Board.
2. The Judicial Board shall give notice of the specific charges against the student, in writing, to insure that he/she may adequately prepare for his/her hearing. The notice shall clearly indicate the offense with specific reference to the violated regulation, and shall indicate the time and place of the hearing. The notification shall be presented to the accused at least five (5) days prior to the hearing. In cases where immediate relief has been requested, the five-day notification period may be waived if deemed necessary with the concurrence of a majority of the members of the Judicial Board.
3. The Judicial Board shall insure that any student charged with a breach of university or college rules or regulations has, prior to appearing before the Judicial Board, been presented with a statement defining the composition and authority of the Judicial Board.
4. The Judicial Board shall examine all relevant facts and circumstances presented at the hearing and reach an equitable decision. A sufficient record of the proceedings shall be kept to enable review thereof and every reasonable attempt shall be made to keep the matter appropriately confidential.
5. The Judicial Board member shall not discuss or review matters under consideration outside of the hearing itself. Failure to observe this provision renders such member subject to impeachment procedures by the Faculty-Student Committee on Student Affairs.

- Impeachment shall be by a two-thirds vote of that committee. Any violation of this section shall not affect the proceedings of the Judicial Board in a determination of the case.
6. At the hearing, the student shall have ample opportunity to explain the circumstances surrounding the incident and shall be able to present pertinent evidence and testimony of witnesses. In addition, the student shall have the opportunity to ask questions of any witnesses, to respond to written statements submitted against him/her and to respond to questions. The Judicial Board shall also have the right to call and question witnesses, and to review materials.
 7. The student shall have the right to be assisted by an advisor of his/her choice.
 8. No member of the Judicial Board shall be either a witness before the court or a person previously engaged in formulating the charge or in presenting materials relating to the case.
 9. All hearings shall be open unless requested by the defendant to be closed. The hearing may be closed by the chairperson of the Judicial Board if he/she feels it is necessary for orderly conduct of the hearing. A closed hearing shall mean that the public, including the press, shall not be allowed to attend the proceeding.
 10. The student shall be notified, in writing, by the Judicial Board of the final decision in his/her case. Should the decision involve disciplinary warning or disciplinary probation, then the student shall have the right to appeal to the College President or his/her designee in writing within 30 days after the mailing of such notification.
 11. Judicial Board records shall be filed with the Office of Student Affairs and released only with the permission of the Judicial Board or the alleged violator. Records shall be kept for five years.
 12. The official student newspaper may be used periodically for informing the campus of action taken by the Judicial Board. Such notification shall be in the form of a summary.
 13. The student may waive, in writing, the requirements of a hearing. In such cases, the hearing body will consider the evidence. If the student does not waive the requirements of a hearing and does not appear for such a hearing his/her case will be considered by the hearing body and a decision will be rendered in his/her absence.
 14. Certain cases of student misconduct may require that official college action be taken. Although a variety of less formal action may be taken in many cases, the following are the official disciplinary actions.
 - (a) Disciplinary Warning, which shall be issued to indicate to a student that his/her behavior is in violation of college or university regulations.
 - (b) Disciplinary Probation, which is a more stringent warning for a more serious or frequent violation. The probationary status shall be issued for a stated period of time and may include specific restrictions on the student.
 - (c) Disciplinary Suspension, which separates the student from the college for a stated period of time. At the end of this period, the student may apply for readmission.
 - (d) Disciplinary Dismissal, which permanently separates the student from the college.

NOTE: In the legitimate interest of the college in protecting property and the safety and welfare of specific individuals or the general public, the College President or his/her designee may temporarily suspend an individual pending a decision by the hearing body.

15. In cases involving suspension or dismissal, the Judicial Board shall recommend such action to the President of the college or his/her designee, in which case the College President's decision shall be final.
16. In all other cases, the decisions made by the Judicial Board will be final unless they are reversed or altered by the written decision of the College President or his/her designee.
17. The Judicial Board may adopt bylaws not inconsistent with these rules and regulations upon the affirmative vote of not less than six members.
18. The Judicial Board shall have the power to temporarily suspend any or all activities, including financial transactions of any body, which fall under the jurisdiction of the board. In all matters involving this section the President of the college or his/her designee shall be informed of and approve any action of this type before a decision is publicly rendered and implemented.

Policy Statement on Cheating, Plagiarism, and Collusion

A committee of the faculty shall review cases of cheating, plagiarism, or collusion on any examination or assigned work and shall recommend to the College President such action as it may deem necessary. (College Council-1960)

Statement

A hearing body made up of faculty, administration, and students shall review cases of alleged cheating, plagiarism, or collusion. This body shall be appointed by the Academic Vice President and shall include the chairperson of the department in which the charge arises, two faculty members from that department (other than any faculty members involved), one from another discipline, one professional staff member from the Office of Student Affairs, the dean of the appropriate area, and two students who shall be upper level students appointed by the president of the Student Association. The dean shall chair this hearing body and recommend to the Vice President for Academic Affairs such action as may be deemed necessary.

Procedures

1. The student charged with cheating, plagiarism, or collusion shall be entitled to a hearing before this body but may waive the right to a hearing.
2. The student charged shall be given a written notice of the specific charges stating the time, date, and place of the hearing - sufficiently in advance to permit preparation of a defense - together with statements of the maximum penalty in the event such charges are proved. The student may waive in writing the requirement of written notice.
3. The student shall be given full opportunity to present to the hearing body his/her defense against the charges, and to produce oral testimony, written affidavits, and/or witnesses in his/her behalf.
4. The hearing body shall be impartial. No member of the hearing body shall be a witness for or against the student nor have been previously engaged in formulating the charge. The hearing body shall examine all relevant facts and circumstances without regard to the technical rules of evidence.
5. A sufficient record of the proceedings shall be kept to enable review thereof.
6. A written record of the committee's determinations with any recommendations for action shall be made and a copy provided the student. Such report shall be submitted to the Vice President for Academic Affairs for review and such disciplinary action as he/she determines to be appropriate. The student shall be informed, in writing, of the vice president's decision within a reasonable period of time.

Penalties

Disciplinary action may extend to suspension from privileges or expulsion from college.

Policy Statement on Religious Absences

The Education Law of New York says, in part:

1. No person shall be expelled from or be refused admission as a student to an institution of higher education for the reason that he/she is unable, because of his/her religious beliefs, to attend classes or to participate in any examination, study, or work requirements on a particular day or days.
2. Any student in an institution of higher education who is unable, because of his/her religious beliefs, to attend classes on a particular day or days shall, because of such absence on the particular day or days, be excused from any examination or any study or work requirements.
3. It shall be the responsibility of the faculty and of the administrative officials of each institution of higher education to make available to each student who is absent from school, because of his/her religious beliefs, an equivalent opportunity to make up any examination, study, or work requirements which he/she may have missed because of such absence on any day or days. No fees of any kind shall be charged by the institution for making available to the said student such equivalent opportunity.
4. If registration, classes, examinations, study, or work requirements are held on Friday after four o'clock post meridian or on Saturdays similar or makeup classes, examinations, study, or work requirements shall be made available on other days, where it is possible and practicable to do so. No special fees shall be charged to the student for these classes, registration, examinations, study, or work requirements held on other days.
5. In effectuating the provisions of this section, it shall be the duty of the faculty and of the administrative officials of each institution of higher education to exercise the fullest measure of good faith. No adverse or prejudicial effects shall result to any student because of his/her availing himself/herself of the provisions of this section.
6. Any student, who is aggrieved by the alleged failure of any faculty or administrative officials

to comply in good faith with the provisions of this section, shall be entitled to maintain an action or proceeding in the Supreme Court of the county in which such institution of higher education is located for the enforcement of his/her rights under this section.

(a) It shall be the responsibility of the administrative officials of each institution of higher education to give written notice to students of their rights under this section, informing them that each student who is absent from school, because his or her religious beliefs, must be given an equivalent opportunity to register for classes or make up any examination, study or work requirements for which he or she may have missed because of such absence on any particular day or days. No fees of any kind shall be charged by the institution for making available to such student such equivalent opportunity.

7. As used in this section the term "institution of higher education" shall mean any institution of higher education, recognized and approved by the Regents of the University of the State of New York, which provides a course of study leading to the granting of a post-secondary degree or diploma. Such term shall not include any institution which is operated, supervised or controlled by a church or by a religious or denominational organization whose educational programs are principally designed for the purpose of training ministers or other religious functionaries or for the purpose of propagating religious doctrines. As used in this section, the term "religious belief" shall mean beliefs associated with any corporation organized and operated exclusively for religious purposes, which is not disqualified for tax exemption under Section 501 of the United States Code.

Policies on Motor Vehicles

All members of the college community (students, faculty, and staff), who park cars or other motor vehicles on campus between the hours of 7:00 a.m. and 5:00 p.m. must register their vehicle each semester within seven days after classes begin.

When a new or borrowed vehicle is brought on campus, the Office of Public Safety (673-3465) must be notified immediately in order to avoid unnecessary ticketing. Any vehicle obtained during the semester must be registered within 48 hours at the Office of Student Accounts.

The booklet, *Regulations Governing Motor Vehicle Use and Campus Parking Facilities* is available at the Office of Public Safety in Gregory Hall and the Office of Student Accounts on the third floor of Maytum Hall.

The fee for parking/motor vehicle registration is determined each year and is due and payable at the time of registration.

Students, faculty and staff shall comply with all traffic and parking regulations in all campus areas and shall comply with all published regulations or be subject to fines. Failure to comply can result in the loss of campus driving, parking and vehicle registration privileges.

SEXUAL DISCRIMINATION AND SEXUAL HARASSMENT

The College Policy Sexual discrimination in the form of sexual harassment, defined as the use of one's authority and power to coerce another individual into sexual acts or relations or to punish the other for his/her refusal, shall be a violation of the policy of the College at Fredonia.

What Is Sexual Discrimination? "No person in the United States shall on the basis of sex be excluded from participation in, be denied the benefits of, or be subject to discrimination under any education program or activity receiving Federal financial assistance." Title IX of the Educational Amendments of 1972.

What Is Sexual Harassment? Sexual harassment may include repeated unwelcome sexual advances, requests for sexual favors and other verbal or physical conduct of a sexual nature carried out by someone in the workplace or educational setting. Such behavior may offend the recipient, cause discomfort or humiliation and interfere with job or school performance.

Peer Harassment - Students have a right to an environment free from sexual harassment, not only by persons in positions of power, but by any member of the university community. Sexual

harassment constitutes a serious threat to the free interaction and exchange necessary for educational and personal development.

Sexual harassment may range from inappropriate sexual innuendos to coerced sexual relations. It can happen to both men and women, but a woman is more often the victim.

What Can Be Done About Sexual Discrimination/Harassment?

What can a student do when he/she believes that...

*course material ignores or depreciates a student because of his/her sex?

*an adviser does not take a student's career and educational goals seriously because she/he appears to believe them inappropriate for members of his/her sex?

*a student is denied resources, such as financial aid, teaching assistantships, or admission to a program for sexist reasons?

*a student is pressured by a professor or staff person to participate with him/her in social and/or sexual activities?

Students often feel powerless in such situations but there are people on campus who are willing to talk to them about those problems without any obligation on the part of either party. Such situations as those described above are not condoned by the College at Fredonia nor the teaching profession. In some instances they occur out of ignorance and misunderstanding and need only to be brought to the attention of the professor. In other instances they can be considered unethical and subject to professional reprimand.

Actions A Student Can Take

(In suggested order)

1. The student can talk to the professor or staff person, carefully explaining why he/she views the particular comment, joke, course reading, action taken, etc. as sexist. The student should regard the meeting as a kind of consciousness-raising session where he/she can help him/her understand how he/she feels. Sometimes people aren't aware of how their remarks or actions affect someone else, and communicating their feelings to the professor might be the most helpful to him/her in avoiding such actions in the future. The student is to be sure to prepare for the meeting ahead of time with documentation (e.g. class notes, tapes, specific comments he/she made and a logical presentation). Sometimes people don't understand how sexist remarks can hurt; it might help the student to draw the analogy of racist or anti-ethnic remarks - "Would you make fun of a person's skin color or ethnic background? Then why do so with sex?"
To get support the student should consider going to see the professor with several other people from class. If he/she can't find others in the class (and discussing the issues with other students in itself may help raise consciousness), he/she should take friends along who aren't in the class. The student might also seek help from those listed below.
2. The student should contact college people and groups who are concerned about sexual discrimination. These people are willing to listen, discuss specific incidents, and provide help and advice if wanted: Ann McCarron Burns, Public Safety (ext. 3465) L. Michael Dimitri, Student Affairs (ext. 3271) Leanna Dunst, Counseling Center (ext. 3424) David T. Hess, Academic Affairs (ext. 3335) Daniel C. O'Rourke, Human Resources (ext. 3434)
3. If a student has talked to the professor and staff person and sexual discrimination continues, the student should write a letter to him/her documenting the incidents and explaining why they are offensive. The student should state that he/she has not obtained results from previous discussion(s) and note the date(s) of the discussion(s). The student should send a carbon copy to the head of his/her department or unit and to one of the above-listed people. Students who fail to receive a satisfactory answer from the staff members and/or head, should request a meeting with the two of them and take along an objective third party (another professor or perhaps one of the people in the above list).
4. Students should not enroll in classes which are sexually discriminatory, and should let the professor know why they haven't enrolled. In filling out course evaluation forms, a student should make it known why he/she has been offended by such discriminatory comments or

actions. If the professor has responded to earlier complaints and has made efforts to change, support those efforts in the evaluation. Students are asked to remember to always give full support to professors who are fair and who treat students as human beings regardless of sex.

5. It may be necessary to file a formal grievance or complaint. This is a very serious step and should not be undertaken without discussion and counsel with a staff member who understands established grievance procedures at the College at Fredonia. Once again, students are asked to consult with one of the people on the above list.

Credit for the above is readily given to the Project on the Status and Education of Women, Association of American Colleges, 1818 R Street, N.W., Washington, D.C., and the Utah State University Committee on the Status of Women.

FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT OF 1974

The Family Educational Rights and Privacy Act of 1974 sets forth requirements designed to protect the privacy of parents and students. The statute governs the access to records maintained by educational institutions, and the release of such records.

The Family Educational Rights and Privacy Act permits current or former students to inspect and review their education records. Students are also accorded a right to a hearing in order to question the contents of their education records.

Written consent from students may be required before personally identifiable information about them will be released from their education records, as provided by law.

Specifically, institutions are permitted to release directory information on students unless the students have notified the institution to withhold this information. Directory information is defined as: the student's name, address, telephone listing, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended by the student.

Inquiries or complaints may be filed with the Family Educational Rights and Privacy Act Office, Department of Health, Education and Welfare, 330 Independence Avenue, S.W., Washington, D.C. 20201.

Copies of the College at Fredonia compliance policy and the Family Educational Rights and Privacy Act are available at the Office of Student Affairs.

RULES AND REGULATIONS FOR MAINTENANCE OF PUBLIC ORDER ON CAMPUS

Rules and regulations for maintenance of public order on premises of state-operated institutions of the State University of New York adopted by the State University Board of Trustees on June 18, 1969, and amended on July 10, 1969, April 9, 1970, April 29, 1970, and during the 1982-83 academic year.

1. *Statement of Purpose.* The following rules are adopted in compliance with Section 6450 of the Education Law and shall be filed with the Commissioner of Education and the Board of Regents on or before July 20, 1969, as required by that section. Said rules shall be subject to amendment or revision and any amendments or revisions thereof shall be filed with the Commissioner of Education and Board of Regents within ten days after adoption. Nothing herein is intended, nor shall it be construed, to limit or restrict the freedom of speech nor peaceful assembly. Free inquiry and free expression are indispensable to the objectives of a higher educational institution. Similarly, experience has demonstrated that the traditional autonomy of the educational institution (and the accompanying institutional responsibility for the maintenance of order) is best suited to achieve these objectives. These rules shall not be construed to prevent or limit communication between and among faculty, students, and administration, or to relieve the institution of its special responsibility for self-regulation in the preservation of public order. Their purpose is not to prevent or restrain controversy and dissent but to prevent abuse of the rights of others and to maintain that public order appropriate to a college or university campus without which there can be no intellectual

- freedom, and they shall be interpreted and applied to that end.
2. *Application of Rules.* These rules shall apply to all state-operated institutions of the State University. These rules may be supplemented by additional rules for the maintenance of public order heretofore or hereafter adopted for any individual institution, approved and adopted by the State University Trustees and filed with the Commissioner of Education and Board of Regents, but only to the extent that such additional rules are not inconsistent herewith. The rules hereby adopted shall govern the conduct of students, faculty, and other staff, licensees, invitees, and all other persons, whether or not their presence is authorized, upon the campus of any institution to which such rules are applicable and also upon or with respect to any other premises or property, under the control of such institution, used in its teaching, research, administrative, service, cultural, recreational, athletic, and other programs and activities, provided however, that charges against any student for violation of these rules upon the premises of any such institution other than the one at which he/she is in attendance shall be heard and determined at the institution in which he/she is enrolled as a student.
 3. *Prohibited conduct.* No person, either singly or in concert with others, shall:
 - (a) Willfully cause physical injury to any other person, nor threaten to do so for the purpose of compelling or inducing such other person to refrain from any act which he/she has a lawful right to do or to do any act which he/she has a lawful right not to do.
 - (b) Physically restrain or detain any other person, nor remove such person from any place where he/she is authorized to remain.
 - (c) Willfully damage or destroy property of the institution or under its jurisdiction, nor remove or use such property without authorization.
 - (d) Without permission, express or implied, enter into any private office of an administrative officer, member of the faculty, or staff member.
 - (e) Enter upon and remain in any building or facility for any purpose other than its authorized use or in such manner as to obstruct its authorized use by others.
 - (f) Without authorization, remain in any building or facility after it is normally closed.
 - (g) Refuse to leave any building or facility after being required to do so by an authorized administrative officer.
 - (h) Obstruct the free movement of persons and vehicles in any place to which these rules apply.
 - (i) Deliberately disrupt or prevent the peaceful and orderly conduct of classes, lectures, and meetings or deliberately interfere with the freedom of any person to express his/her views, including invited speakers.
 - (j) Knowingly have in his/her possession upon any premises to which these rules apply, any rifle, shotgun, pistol, revolver, or other firearm or weapon without the written authorization of the chief administrative officer whether or not a license to possess the same has been issued to such a person.
 - (k) Willfully incite others to commit any of the acts herein prohibited with specific intent to procure them to do so.
 4. *Freedom of Speech and Assembly: Picketing and Demonstrations.*
 - (a) No student, faculty, or other staff member or authorized visitor shall be subject to any limitation or penalty solely for the expression of his/her views nor for having assembled with others for such purpose. Peaceful picketing and other orderly demonstrations in public areas of ground and building will not be interfered with. Those involved in picketing and demonstrations may not, however, engage in specific conduct in violation of the provisions of the preceding section.
 - (b) In order to afford maximum protection to the participants and to the institutional community, each state operated institution of the State University shall promptly adopt and promulgate, and thereafter continue in effect as revised from time to time, procedures appropriate to such institutions for the giving of reasonable advance notice to such institution of any planned assembly, picketing, or demonstration upon the grounds of such institution, its proposed locale and intended purpose, provided however, that the giving of such notice shall not be made a condition precedent to any such assembly, picketing, or demonstration, and provided further, that this provision shall not supersede nor preclude the procedures in effect at such institution for obtaining permission to use the facilities thereof.
 5. *Penalties.* A person who shall violate any of the provisions of these rules (or of the rules of any individual institution supplementing or implementing these rules) shall:
 - a) If he/she is a licensee or invitee, have his/her authorization to remain upon the campus or other property withdrawn and shall be directed to leave the premises. In the event of his/her

failure to do so, he/she shall be subject to ejection.

(b) If he/she is a trespasser or visitor without specific license or invitation, be subject to ejection.

(c) If he/she is a student, be subject to expulsion or such lesser disciplinary action as the facts of the case may warrant, including suspension, probation, loss of privileges, reprimand, or warning.

(d) If he/she is a faculty member having a term or continuing appointment, be guilty of misconduct and be subject to dismissal or termination or his/her employment or such lesser disciplinary action as the facts may warrant including suspension without pay, or censure

(e) If he/she is a staff member in the classified service of the civil service, described in Section 75 of the Civil Service Law, be guilty of misconduct, and be subject to the penalties prescribed in said section.

(f) If he/she is a staff member other than one described in subdivisions (d) and (e), be subject to dismissal, suspension without pay, or censure.

6. *Procedure.*

(a) The chief administrative officer or his/her designees shall inform any licensee or invitee who shall violate any provisions of these rules (or of the rules of any individual institution supplementing or implementing these rules) that his/her license or invitation is withdrawn and shall direct him/her to leave the campus or other property of the institution. In the event of his/her failure or refusal to do so such officer shall cause his/her ejection from such campus or property.

(b) In the case of any other violator, who is neither a student nor faculty or other staff member, the chief administrative officer or his/her designee shall inform him/her that he/she is not authorized to remain on the campus or other property of the institution and direct him/her to leave such premises. In the event of his/her failure or refusal to do so such officer shall cause his/her ejection from such campus or property. Nothing in this subdivision shall be construed to authorize the presence of any such person at any time prior to such violation nor to affect his/her liability to prosecution for trespass or loitering as prescribed in the Penal Law.

(c) In the case of a student, charges for violation of any of these rules (or of the rules of any individual institution supplementing or implementing these rules) shall be presented and shall be heard and determined in the manner hereinafter provided in Section 9 of this Part.

(d) In the case of a faculty member having a continuing or term appointment, charges of misconduct in violation of these rules (or of the rules of any individual institution supplementing or implementing these rules) shall be made, heard and determined in accordance with Title D of part 138 of the policies of the Board of Trustees.

(e) In the case of any staff member who holds a position in the classified civil service, described in Section 75 of the Civil Service Law, charges of misconduct in violation of these rules (or of the rules of any individual institution supplementing or implementing these rules) shall be made, heard and determined as prescribed in that section.

(f) Any other faculty or staff member who shall violate any provision of these rules (or of the rules of any individual institution supplementing or implementing these rules) shall be dismissed, suspended, or censured by the appointing authority prescribed in the policies of the Board of Trustees.

7. *Enforcement Program.*

(a) The chief administrative officer shall be responsible for the enforcement of these rules (or of the rules of any individual institution supplementing or implementing these rules) and he/she shall designate the other administrative officers who are authorized to take action in accordance with such rules when required or appropriate to carry them into effect.

(b) It is not intended by any provision herein to curtail the rights of students, faculty, or staff to be heard upon any matter affecting them in their relations with the institution. In the case of any apparent violation of these rules (or of the rules of any individual institution supplementing or implementing these rules) by such persons, which, in the judgment of the chief administrative officer or his/her designee, does not pose any immediate threat of injury to person or property, such officer may make reasonable effort to learn the cause of the conduct in question and to persuade those engaged therein to desist and to resort to permissible methods for the resolution of any issues which may be presented. In doing so, such officer shall warn such persons of the consequences of persistence in the prohibited conduct, including their ejection from any premises of the institution where their continued presence and conduct is in violation of these rules (or of the rules of any individual institution

supplementing or implementing these rules).

(c) In any case where violation of these rules (or of the rules of any individual institution supplementing or implementing these rules) does not cease after such warning and in other cases of willful violation of such rules, the chief administrative officer or his/her designee shall cause the ejection of the violator from any premises which he/she occupies in such violation and shall initiate disciplinary action as hereinbefore provided.

(d) The chief administrative officer or his/her designee may apply to the public authorities for any aid which he/she deems necessary in causing the ejection of any violator of these rules (or of the rules of any individual institution supplementing or implementing these rules) and he/she may request the State University counsel to apply to any court of appropriate jurisdiction for an injunction to restrain the violation or threatened violation of such rules.

8. *Communication.* In matters of the sort to which these rules are addressed, full and prompt communication among all components of the institutional community, faculty, students, and administration, is highly desirable. To the extent that time and circumstances permit, such communication should precede the exercise of the authority, discretion, and responsibilities granted and imposed in these rules. To these ends each state-operated institution of the State University shall employ such procedures and means, formal and informal, as will promote such communication.

9. *Notice, Hearing and Determination of Charges Against Students.*

(a) The term "chief administrative officer," as used in these rules, shall be deemed to mean and include any person authorized to exercise the powers of that office during a vacancy therein or during the absence or disability of the incumbent and for purposes of this section shall also include any designee appointed by said officer.

(b) Whenever a complaint is made to the chief administrative officer of any state-operated institution of the University of a violation by a student or students of the rules prescribed in this Part (or of any rules adopted by an individual institution supplementing or implementing such rules) or whenever he/she has knowledge that such a violation may have occurred, he/she shall cause an investigation to be made and the statements of the complainants, if any, and of other persons having knowledge of the facts reduced to writing. If he/she is satisfied from such investigation and statements that there is reasonable ground to believe that there has been such a violation, he/she shall prepare or cause to be prepared charges against the student or students alleged to have committed such violation which shall state the provision prescribing the offense and shall specify the ultimate facts alleged to constitute such offense.

(c) Such charges shall be in writing and shall be served on the student or students named therein by delivering the same to him/her or them personally, if possible, or, if not, by mailing a copy of such charges by registered mail to such student or students at his/her or their usual place or places of abode while attending college and also to his/her or their home address or addresses, if different.

(d) The notice of charges so served shall fix a date for hearing thereon not less than 10 nor more than 15 days from the date of service which shall be the date of mailing where necessary to effect service by mail. Failure to appear in response to the charges on the date fixed for hearing, unless there has been a continuance for good cause shown, shall be deemed to be an admission of the facts stated in such charges and shall warrant such action as may then be appropriate thereon. Before taking such action the Hearing Committee, hereinafter referred to, shall give notice to any student, who has failed to appear, in the manner prescribed in paragraph (c), of its proposed findings and recommendations to be submitted to the chief administrative officer and shall so submit such findings and recommendations 10 days thereafter unless the student has meanwhile shown good cause for his/her failure to appear, in which case a date for hearing shall be fixed.

(e) Upon demand at any time before or at the hearing the student charged or his/her representative, duly designated, shall be furnished a copy of the statements taken by the chief administrative officer in relation to such charges and with the names of any other witnesses who will be produced at the hearing in support of the charges, provided, however, that this shall not preclude the testimony of witnesses who were unknown at the time of such demand.

(f) The chief administrative officer may, upon the service of charges, suspend the student named therein from all or any part of the institution's premises or facilities, pending the hearing and determination thereof, whenever, in his/her judgment, the continued presence of such student would constitute a clear danger to himself/herself or to the safety of persons or property on the premises of the institution or would pose an immediate threat of disruptive

interference with the normal conduct of the institution's activities and functions, provided, however, that the chief administrative officer shall grant an immediate hearing on request of any student so suspended with respect to the basis for such suspension.

(g) There shall be constituted at each state-operated institution a Hearing Committee to hear charges against students of violation of the rules for maintenance of public order prescribed by or referred to in this Part. Such committee shall consist of three members of the administrative staff and three members of the faculty, designated by the chief administrative officer, and three students who shall be designated by the members named by the chief administrative officer. Each such member shall serve until his/her successor or replacement has been designated. No member of the committee shall serve in any case where he/she is a witness or is or has been directly involved in the events upon which the charges are based. In order to provide for cases where there may be such a disqualification and for cases of absence or disability, the chief administrative officer shall designate an alternate member of the administrative staff and an alternate member of the faculty, and his/her principal designees shall designate an alternate student member, to serve in such cases. Any five members of the committee may conduct hearings and make findings and recommendations as hereinafter provided.

At any institution where the chief administrative officer determines that the number of hearings which will be required to be held is, or may be, so great that they cannot otherwise be disposed of with reasonable speed, he/she may determine that the Hearing Committee shall consist of six members of the administrative staff and six members of the faculty to be designated by him/her and of six students who shall be designated by the members so designated by him/her. In such event the chief administrative officer shall designate one of such members as chairperson who may divide the membership of the committee into three divisions each to consist of two members of the administrative staff, two faculty members, and two students and may assign charges among such divisions for hearing. Any four members of each such division may conduct hearings and make recommendations as hereinafter provided.

(h) The Hearing Committee shall not be bound by the technical rules of evidence but may hear or receive any testimony or evidence which is relevant and material to the issues presented by the charges and which will contribute to a full and fair consideration thereof and determination thereon. A student against whom the charges are made may appear by and with representatives of his/her choice. He/she may confront and examine witnesses against him/her and may produce witnesses and documentary evidence in his/her own behalf. There may be present at the hearing: the student charged and his/her representatives and witnesses; other witnesses; representatives of the institutional administration; and, unless the student shall request a closed hearing, such other members of the institutional community or other persons, or both, as may be admitted by the Hearing Committee. A transcript of the proceedings shall be made.

(i) Within 20 days after the close of a hearing the Hearing Committee shall submit a report of its findings of fact and recommendations for disposition of the charges to the chief administrative officer, together with a transcript of the proceedings, and shall at the same time transmit a copy of its report to the student concerned or his/her representative. Within 10 days thereafter the chief administrative officer shall make his/her determination thereon. Final authority to dismiss the charges or to determine the guilt of those against whom they are made and to expel, suspend, or otherwise discipline them shall be vested in the chief administrative officer. If he/she shall reject the findings of the Hearing Committee in whole or in part he/she shall make new findings which must be based on substantial evidence in the record and shall include them in the notice of his/her final determination which shall be served the student or students with respect to whom it is made.

GENERAL STATEMENT

State University of New York

State University's 64 geographically dispersed campuses bring educational opportunity within commuting distance of virtually all New York State citizens and comprise the nation's largest, centrally managed system of public higher education.

When founded in 1948, the university consolidated 29 state-operated, but unaffiliated, institutions. In response to need, the university has grown to a point where its impact is felt educationally, culturally, and economically the length and breadth of the state.

Nearly 400,000 students are pursuing traditional study in classrooms or are working at home, at their own pace, through such innovative institutions as Empire State College, whose students follow individualized and often non-traditional paths to a degree. Of the total enrollment, approximately 36 percent of students are 25 years or older, reflecting the State University's services to specific constituencies, such as refresher courses for the professional community, continuing educational opportunities for returning service personnel, and personal enrichment for more mature persons.

State University's research contributions are helping to solve some of modern society's most urgent problems. It was a State University scientist who first warned the world of potentially harmful mercury deposits in canned fish, and another who made the connection between automobile and industrial exhaust combining to cause changes in weather patterns. Other university researchers continue important studies in such wide-ranging areas as immunology, marine biology, sickle-cell anemia, and organ transplantation.

More than 1,000 public service activities are currently being pursued on State University campuses. Examples of these efforts include special training courses for local government personnel, State Civil Service personnel, and the unemployed; participation by campus personnel in joint community planning or project work; and campus-community arrangements for community use of campus facilities.

A distinguished faculty includes nationally and internationally recognized figures in all the major disciplines. Their efforts are recognized each year in the form of such prestigious awards as FulbrightHays, Guggenheim, and Danforth Fellowships.

The university offers a wide diversity of what are considered the more conventional career fields, such as business, engineering, medicine, teaching, literature, dairy farming, medical technology, accounting, social work, forestry, and automotive technology. Additionally, its responsiveness to progress in all areas of learning and to tomorrow's developing societal needs has resulted in concentrations which include the environment, urban studies, computer science, immunology, preservation of national resources, and microbiology.

State University of New York programs for the educationally and economically disadvantaged have become models for delivering better learning opportunities to a once-forgotten segment of society. Educational Opportunity Centers offer high school equivalency and college preparatory courses to provide young people and adults with the opportunity to begin college or to learn marketable skills. In addition, campus Educational Opportunity Programs provide counseling, developmental education, and financial aid to disadvantaged students in traditional degree programs.

Overall, at its EOCs, two-year colleges, four-year' campuses, and university and medical centers, the university offers more than 4,800 academic programs. Degree opportunities range from two-year associate programs to doctoral studies offered at 12 senior campuses.

The 30 two-year community colleges operating under the program of the State University play a unique role in the expansion of educational opportunity. They provide local industry with trained technicians in a wide variety of occupational curriculums, and offer transfer options to students who wish to go on and earn advanced degrees.

The university passed a major milestone in 1985 when it graduated its one-millionth alumnus. The majority of SUNY graduates pursue careers in communities across the state.

The State University is governed by a Board of Trustees, appointed by the governor, which directly determines the policies to be followed by the 34 state supported campuses. Community colleges have their own local boards of trustees whose relationship to the SUNY board is defined by law. The state contributes one-third to 40 percent of their operating cost and one-half of their capital costs.

The State University motto is, "To Learn - To Search - To Serve."

STATE UNIVERSITY OF NEW YORK

UNIVERSITY CENTERS

State University of New York at Albany
State University of New York at Binghamton
State University of New York at Buffalo
State University of New York at Stony Brook

UNIVERSITY COLLEGES

State University College at Brockport
State University College at Buffalo
State University College at Cortland
State University College at Fredonia
State University College at Geneseo
State University College at New Paltz
State University College at Old Westbury
State University College at Oneonta
State University College at Oswego
State University College at Plattsburgh
State University College at Potsdam
State University College at Purchase
State University of New York Empire State College

HEALTH SCIENCE CENTERS

State University of New York Health Science Center at Brooklyn
State University of New York Health Science Center at Syracuse

COLLEGES OF TECHNOLOGY

State University of New York College of Technology at Alfred
State University of New York College of Technology at Canton
State University of New York College of Agriculture and Technology at Cobleskill
State University of New York College of Technology at Delhi
State University of New York College of Technology at Farmingdale
State University of New York College of Agriculture and Technology at Morrisville

SPECIALIZED COLLEGES

State University of New York College of Environmental Science and Forestry
State University of New York College of Optometry
State University Institute of Technology at Utica/Rome
State University of New York Maritime College

STATUTORY COLLEGES

New York State College of Agriculture and Life Sciences at Cornell University
New York State College of Ceramics at Alfred University
New York State College of Human Ecology at Cornell University
New York State College of Veterinary Medicine at Cornell University
New York State School of Industrial and Labor Relations at Cornell University

COMMUNITY COLLEGES

Adirondack Community College at Glens Falls
Broome Community College at Binghamton
Cayuga County Community College at Auburn
Clinton Community College at Plattsburgh
Columbia-Greene Community College at Hudson
Corning Community College at Corning
Dutchess Community College at Poughkeepsie

SUNY COLLEGE AT FREDONIA

*

Erie Community College at Williamsville, Buffalo and Orchard Park
Fashion Institute of Technology at New York City
Finger Lakes Community College at Canandaigua
Fulton-Montgomery Community College at Johnstown
Genesee Community College at Batavia
Herkimer County Community College at Herkimer
Hudson Valley Community College at Troy
Jamestown Community College at Jamestown
Jefferson Community College at Watertown
Mohawk Valley Community College at Utica
Monroe Community College at Rochester
Nassau Community College .at Garden City
Niagara County Community College at Sanborn
North Country Community College at Saranac Lake
Onondaga Community College at Syracuse
Orange County Community College at Middletown
Rockland Community College at Suffern
Schenectady County Community College at Schenectady
Suffolk County Community College at Selden, Riverhead and Brentwood
Sullivan County Community College at Loch Sheldrake
Tompkins Cortland Community College at Dryden
Ulster County Community College at Stone Ridge
Westchester Community College at Valhalla

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WILLIAM H. FOELLER, *Professor* Iowa State University, Ph.D.

JOHN A. HANSEN, *Associate Professor* Yale University, Ph.D.

AMAR K. PARAI, *Associate Professor* Southern Methodist University, Ph.D.

JANICE L. PETERSON, *Assistant Professor* University of Nebraska, Ph.D.

AMIN U. SARKAR, *Assistant Professor* University of California, Berkeley, Ph.D.

Education

JULIUS G. ADAMS, *Assistant Professor* SUNY at Buffalo, Ph.D.

The State University Chancellor's Award for Excellence in Teaching, 1993

MARION BARNETT, *Instructor* SUNY at Buffalo, M.Ed.

FREDERICK BYHAM, *Associate Professor* Ohio State University, Ph.D.

ALEXANDER M. CHABE, *Professor* Indiana University, Ed.D. *Kasling Lecturer, 1976*

JOHN E. CONNELLY, *Professor* SUNY at Buffalo, Ed.D.

PATRICK L. COURTS, *Professor* Michigan State University, Ph.D.

President's Award for Excellence in Teaching, 1986

DANIEL DOBEY, *Professor* Syracuse University, Ph.D.

The State University Chancellor's Award for Excellence in Teaching, 1989

GREGORY F. HARPER, *Professor* Kent State University, Ph.D.

ROBERT L. HEICHBERGER, *Professor* SUNY at Buffalo, Ed.D.

MATTHEW J. LUDS, *Professor* SUNY at Buffalo, Ed.D.

DONALD McFARLAND, *Associate Professor* Wayne State University, Ed.D

MELINDA KARNES, *Assistant Professor* Saint Louis University, Ph.D.

LAWRENCE MAHEADY, *Associate Professor* University of Pittsburgh, Ph.D.

BARBARA MALLETTE, *Associate Professor* Kent State University, Ph.D.

NANCI MONACO, *Associate Professor* SUNY at Buffalo, Ph.D.

The State University Chancellor's Award for Excellence in Teaching, 1990

THOMAS MORRISSEY, *Associate Professor* Cornell University, Ph.D.

PHILIP S. MORSE, *Associate Professor* University of Rochester, Ph.D.

TERENCE D. MOSHER, *Associate Professor* University of Michigan, Ph.D.

The State University Chancellor's Award for Excellence in Teaching, 1983

J. BRIEN MURPHY, *Associate Professor* SUNY at Buffalo, Ed.D.

JoANN PARLA, *Associate Professor* SUNY at Buffalo, Ph.D.
 HAROLD H. ROEDER, *Professor* SUNY at Buffalo, Ed.D.
 NAIM SEFEIN, *Professor* University of Minnesota, Ph.D.
 KATHYE UNGLAUB, *Instructor* University of Pittsburgh, M.Ed.
 ALAN H. WHEELER, *Professor* Syracuse University, Ph.D.

English

RONALD AMBROSETTI, *Professor* Bowling Green University, Ph.D.
 M/NDA RAE AMIRAN, *Professor* The Hebrew University in Jerusalem, Ph.D.
 JOAN BURKE, *Assistant Professor* University of Maryland, Ph.D.
 PATRICK L. COURTS, *Professor* Michigan State University, Ph.D.
President's Award for Excellence in Teaching, 1986
 NANCY DEAL, *Assistant Professor* Michigan State University, Ph.D.
 ROBERT H. DEMING, *Professor* University of Wisconsin, Ph.D.
 ALBERT A. DUNN, *Associate Professor* University of Virginia, Ph.D.
The State University Chancellor's Award for Excellence in Teaching, 1980
 MAUREEN FRIES, *Distinguished Teaching Professor* SUNY at Buffalo, Ph.D. *The State University Chancellor's Award for Excellence in Teaching, 1977 Kasling Lecturer, 1985*
 JAMES R. HUFFMAN, *Professor* Michigan State University, Ph.D.
 DAVID LUNDE, *Professor* University of Iowa, M.F.A.
 JEANETTE McVICKER, *Assistant Professor* SUNY at Binghamton, Ph.D.
 KAREN MILLS-COURTS, *Professor* SUNY at Buffalo, Ph.D.
 TERENCE D. MOSHER, *Associate Professor* University of Michigan, Ph.D.
The State University Chancellor's Award for Excellence in Teaching, 1983
 MALCOLM NELSON, *Distinguished Teaching Professor* Northwestern University, Ph.D.
The State University Chancellor's Award for Excellence in Teaching, 1975
 JOHN S. RAMSEY, *Professor* University of Maryland, Ph.D.
 REGINA REED, *Associate Professor* SUNY at Buffalo, Ph.D.
 GEORGE SEBOUHIAN, *Professor* Ohio State University, Ph.D.
 JAMES SHOKOFF, *Professor* University of Illinois, Ph.D.
 THEODORE L. STEINBERG, *Professor* University of Illinois, Ph.D.
Presidents Award for Excellence in Teaching, 1987
 JOHN J. STINSON, *Professor* New York University, Ph.D.
 JAMES SYMULA, *Professor* SUNY at Buffalo, Ed.D.
 JACQUELINE TRACE, *Associate Professor* University of Massachusetts, Ph.D.
 STEPHEN WARNER, *Associate Professor* Indiana University, Ph.D.

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RUTH B. ANTOSH, *Professor* (French) Indiana University, Ph.D.
 OSVALDO CHINCHON, *Associate Professor* (Spanish) University of Virginia, Ph.D.
 THOMAS H. GOETZ, *Distinguished Service Professor* (French) Syracuse University, Ph.D.
 LEONORE LOFT, *Associate Professor* (French) Columbia University, Ph. D.
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 CLARK M. ZLOTCHEW, *Professor* (Spanish) SUNY at Binghamton, Ph.D.
President's Award for Excellence in Teaching, 1988 Kasling Lecturer, 1992

Geosciences

GORDON C. BAIRD, *Associate Professor* University of Rochester, Ph.D.
 WALTHER-M. BARNARD, *Professor* Pennsylvania State University, Ph.D.
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 RICHARD A. GILMAN, *Distinguished Teaching Professor* University of Illinois, Ph.D.
 GARY G. LASH, *Associate Professor* Lehigh University, Ph.D.
 MICHAEL P. WILSON, *Associate Professor* Syracuse University, Ph.D

Health, Physical Education, Athletics, and Dance

ANN BENTLEY, *Instructor* SUNY College at Brockport, B.S.
 JAMES E. FITZGERALD, *Instructor* SUNY at Buffalo, M.S.
 CATHY FLANDERS, *Instructor* Lamar University, M.S.

PENNY HITE, *Instructor* SUNY College at Fredonia, M.S.
 ROSANNE MAZIERSKI, *Instructor* SUNY College at Fredonia, B.F.A.
 JEFFREY MEREDITH, *Instructor* Ohio State University, M.S.
 MICHAEL D. MIDDLETON, *Instructor* University of West Virginia, M.S.
 EVERETT J. PHILLIPS, *Professor* University of Oregon, Ed.D.
 GREGORY D. PRECHTL, *Assistant Professor* SUNY at Buffalo, M.A.
 CAROL A. PREVET, *Professor* University of North Carolina, M.F.A.
 THOMAS E. PREVET, *Associate Professor* SUNY at Buffalo, Ed.D.
 LISA SIEGEL, *Instructor* SUNY College at Brockport, B.S.
 DALE TILL, *Instructor* SUNY College at Fredonia, M.S.
 JAMES D. ULRICH, *Assistant Professor* Indiana State University, M.S.
 WILLIAM VACANTI, *Technical Assistant*

History

GEORGE BROWDER, *Professor* University of Wisconsin, Ph.D.
The State University Chancellor's Award for Excellence in Teaching, 1974
 WILLIAM GRAEBNER, *Professor* University of Illinois, Ph.D. *Kasling Lecturer, 1981*
 ELLEN LITWICKI, *Assistant Professor* University of Virginia, Ph.D.
 MARVIN LUNENFELD, *Distinguished Teaching Professor* New York University, Ph.D.
Kasling Lecturer, 1988
 JULIAN McQUISTON, *Professor* Columbia University, Ph.D.
 THOMAS E. MORRISSEY, *Professor* Cornell University, Ph.D. :
 W. DIRK RAAT, *Professor* University of Utah, Ph.D. *Kasling Lecturer, 1983*
 A. JACQUELINE SWANSINGER, *Assistant Professor* Rutgers University, Ph.D.
 DEBORAH WELCH, *Assistant Professor*, University of Wyoming, Ph.D.
 WEILI YE, *Assistant Professor* Yale University, Ph.D.

Library Services

SUSAN P. BESEMER, *Director of Library Services* Indiana University, M.L.S. SUNY College at Buffalo, M.S. *The State University Chancellor's Award for Excellence in Librarianship, 1983*
 GARY BARBER, *Librarian* SUNY College at Geneseo, M.L.S. SUNY at Buffalo, M.S.
The State University Chancellor's Award for Excellence in Librarianship, 1989
 VINCENT COURTNEY, *Associate Librarian* SUNY/at Albany, M.L.S.
 SARAH B. DORSEY, *Senior Assistant Librarian*, University of Arizona, M.L.S. Boston University, M.M.
 JACK T. ERICSON, *Instructional Support Specialist* University of Connecticut, M.A.
 Cooperstown Graduate Program, N.Y.S. Historical Association in conjunction with the University of the State of New York
 RICHARD HART, *Associate Librarian* Clark University, M.A. Columbia University, M.S.
 JO ANN KAUFMAN, *Associate Librarian* SUNY at Buffalo, M.L.S.
 SUNY College at Fredonia, M.S.
 TESFAI KFLU, *Associate Librarian* University of Wisconsin at Madison, M.S., M.A.
 BARBARA L. KITTLE, *Associate Librarian* SUNY College at Geneseo, M.L.S.
 CARRIE NILES, *Senior Assistant Librarian* Syracuse University, M.S.L.S.
 MARGARET PABST, *Librarian* Syracuse University, M, L.S. Canisius College, M.B.A.
The State University Chancellors Award for Excellence in Librarianship, 1990
 FRANCISKA SAFRAN, *Librarian* Syracuse University, M.S.L.S. SUNY College at Fredonia, M.A.
The State University Chancellors Award for Excellence in Librarianship, 1985

Mathematics and Computer Science

NANCY BOYNTON, *Assistant Professor* Western Michigan University, Ph.D.
 FREDERICK BYHAM, *Associate Professor* Ohio State University, Ph.D.
 TAT-HUNG CHAN, *Associate Professor* Cornell University, Ph.D.
 BRUCE CHILTON, *Associate Professor* University of Toronto, Ph.D.
 RICHARD DOWDS, *Professor* Purdue University, Ph.D.
 Y.H. HARRIS KWONG, *Assistant Professor* University of Pennsylvania, Ph.D.
 WILLIAM LESLIE, *Assistant Professor* SUNY College at Fredonia, M.S.
 JAMES E. McKENNA, *Professor* Syracuse University, Ph.D.

SHILADITYA MAZUMDAR, *Instructor* University of Delhi, M.S.
 JANET A. MEISSNER, *Lecturer* SUNY College at Fredonia, M.S.
 DANIEL R. O'CONNELL, *Assistant Professor* Indiana University of Pennsylvania, B.S.
 ALBERT POLIMENI, *Professor* Michigan State University, Ph.D.
 ROBERT R. ROGERS, *Assistant Professor* SUNY at Buffalo, Ph.D.
 EUGENE ROZYCKI, *Associate Professor* SUNY at Buffalo, Ph.D.
 H. JOSEPH STRAIGHT, *Professor* Western Michigan University, Ph.D.
 MARLO VASSALLO, *Assistant Professor* SUNY at Buffalo, M.S.
 FAWZI M. YAQUB, *Professor* Purdue University, Ph.D.
 MARVIN ZASTROW, *Associate Professor* Northwestern University, Ph.D.

Music

NANCY JANE ANDERSON, *Lecturer* University of Connecticut, M.M.
 KENNETH P. AYOOB, *Visiting Assistant Professor* University of Northern Colorado, D.A.
 DONALD A.J. BOHLEN, *Professor* University of Michigan, D .M .A.
 THOMAS H. CARPENTER, *Professor* Boston University, Mus. A.D.
 GRANT COOPER, *Associate Professor* University of Tulsa, M .M.
The President's Award for Excellence in Teaching, 1990
 MARGARET COOPER, *Lecturer* University of Tulsa, M.M.
 JAMES A. DAVIS, *Instructor* Boston University, M.M.
 JAMES E. EAST, *Associate Professor* The Cleveland Institute of Music, M.M.
 PHYLLIS O. EAST, *Associate Professor* SUNY College at Fredonia, M.M.
The President's Award for Excellence in Teaching, 1989
 C. RUDOLPH EMILSON, *Associate Professor* Ithaca College, M.M.
 CELESTE EMMONS, *Instructor* Indiana University, M.M.
 DAVID F. EVANS, *Associate Professor* West Virginia University, D.M.A.
The State University Chancellor's Award for Excellence in Teaching, 1985
 MARLO P. FALCAO, *Associate Professor* Eastman School of Music of the University of Rochester, M.M.
 RICHARD FALKENSTEIN, *Adjunct Lecturer* SUNY at Buffalo, M.A.
 THEODORE C. FRAZEUR, *Professor Emeritus* Eastman School of Music of the University of Rochester, M.M.
 JOHN C. GILLETTE, *Associate Professor* Indiana University, D.M.A.
 LINDA M. GILLETTE, *Instructor* University of Wisconsin, M .M.
 MARC GUY, *Associate Professor* . SUNY at Stony Brook, D.M.A.
 SARAH HAMILTON, *Instructor* Wayne State University, M.M.
 WALTER S. HARTLEY, *Professor Emeritus* Eastman School of Music of the University of Rochester, Ph.D. *Kasling Lecturer, 1986*
 JOHN T. HOFMANN, *Professor Emeritus* Eastman School of Music of the University of Rochester, D.M.A.
 HARRY P. JACOBSON, *Assistant Professor* North Texas State University, D.M.A.
 ROBERT JORDAN, *Professor* The Juilliard School of Music, M.M.
The State University Chancellor's Award for Excellence in Teaching, 1983
 CHARLES JOSEPH, *Professor* Curtis Institute of Music, Artist Diploma
 DAVID KERZNER, *Instructor* SUNY College at Fredonia, M.S.
 BARRY M. KILPATRICK,, *Associate Professor* University of Wisconsin, M .M.
 MARGARET KUHL-SMITH, *Adjunct Assistant Professor* University of British Columbia, D.M.A.
 DONALD P. LANG, *Associate Professor* Hartt College of Music, University of Hartford, D.M.A.
 RICHARD C. LARSON, *Associate Professor* University of Illinois, Ed.D.
 PATRICK C. MASON, *Associate Professor* University of Nebraska, M.M.
 W. STEPHEN MAYO, *Assistant Professor* University of North Carolina at Greensboro, Ed.D.
 PATRICK T. McMULLEN, *Professor* University of Iowa, Ph.D.
 JULIE NEWELL, *Instructor* Syracuse University, M.M.
 JANNIS PETERSON, *Lecturer* North Texas State University, M.M.
 KEITH L. PETERSON, *Associate Professor* North Texas State University, D.M.A.
 LINDA N. PHILLIPS, *Associate Professor* Ohio State University, D.M.A.
 JAMES PIORKOWSKI, *Visiting Assistant Professor* SUNY College at Fredonia, M.M.
 THOMAS A. REGELSKI, *Distinguished Teaching Professor* Ohio University, Ph.D.
 LUCILLE K. RICHARDSON, *Associate Professor* University of Wisconsin, M.M.

SUSAN ROYAL, *Associate Professor* SUNY at Stony Brook, D.M.A.
 RICHARD SHELL, *Professor Emeritus* University of Michigan, Ph.D.
 CONSTANCE E. WILLEFORD, *Associate Professor* Florida State University, M.M.
 ERIC WILLS, *Lecturer* SUNY College at Fredonia, B.M.
 LAURENCE WYMAN, *Professor* University of Rochester, Ph.D.

Philosophy

RAYMOND A. BELLIOTTI, *Professor* University of Miami, Ph.D. Harvard Law School, J.D.
The State University Chancellor's Award for Excellence in Teaching, 1991
 RANDALL R. DIPERT, *Professor* Indiana University, Ph.D.
 MARVIN KOHL, *Professor* New York University, Ph.D. *Kasling Lecturer, 1974*
 KENNETH G. LUCEY, *Professor* Boston University, Ph.D.
 R. DAVID PALMER, *Associate Professor* Ohio State University, Ph.D.
 MORTON L. SCHAGRIN, *Professor* University of California at Berkeley, Ph.D.
Kasling Lecturer, 1991
 GORDON SNOW, *Adjunct Lecturer* Hampshire College, B.A.

Physics

PAUL O. DAVEY, *Professor* University of Nebraska, Ph.D.
 MICHAEL W. FERRALLI, *Adjunct Assistant Professor* University of Dayton, M.S.
 MICHAEL GRADY, *Associate Professor* Rockefeller University, Ph.D.
 MICHAEL GRASSO, *Professor* SUNY at Buffalo, M.A.
 MYRON LUNTZ, *Professor* University of Connecticut, Ph.D.
 ALBERT NEWMAN, *Adjunct Professor of Engineering and Physics*
SUNY Honorary Doctor of Science, 1984
 SUBRAHMANYAM PENDYALA, *Associate Professor* University of Western Ontario, Ph.D.
 ANDREA RASPINI, *Associate Professor* University of Lowell, Ph.D.

Political Science

MICHAEL BOBSEINE, *Adjunct Instructor* SUNY at Albany, M.P.A.
 MORGAN D. DOWD, *Professor* University of Massachusetts, Ph.D. Catholic University, J.D.
 LEONARD E. FAULK JR., *Associate Professor* University of Pittsburgh, Ph.D.
 JAMES HURTGEN, *Associate Professor* SUNY at Buffalo, Ph.D.,
The State University Chancellor's Award for Excellence in Teaching, 1976
 RICHARD JANKOWSKI, *Associate Professor* University of Chicago, Ph.D.
 JON KRAUS, *Professor* Johns Hopkins University, Ph.D. *Kasling Lecturer, 1987*
 LAURIE BUONANNO LANZE, *Assistant Professor* Johns Hopkins University, Ph.D.
 WILLIAM D. MULLER, *Professor* University of Florida, Ph.D.

Psychology

JACK S. CROXTON, *Associate Professor* Miami University, Ph.D.
The President's Award for Excellence in Teaching, 1991
 CHERYL E. DROUT, *Assistant Professor* University of Delaware, Ph.D.
 DAVID T. HESS, *Professor* University of Kentucky, Ph.D.
 GLEN D. JENSEN, *Professor* Northwestern University, Ph.D.
 ALICE SHEPPARD KLAK, *Visiting Assistant Professor* Clark University, Ph.D.
 BRUCE G. KLONSKY, *Professor* Fordham University, Ph.D.
 DONALD J. LEHR, *Associate Professor* Northwestern University, Ph.D.
The State University Chancellors Award for Excellence in Teaching, 1974
 RICHARD A. LEVA, *Associate Professor* University of Utah, Ph.D.
 THOMAS RYWICK, *Professor* Southern Illinois University, Ph.D.
 JOHN S. SLAUGHTER, *Associate Professor* University of Denver, Ph.D.
 RICHARD M. WEIST, *Professor* University of Kentucky, Ph.D. *Kasling Lecturer, 1982*

Sociology and Anthropology

LEE BRAUDE, *Professor* University of Chicago, Ph.D. *Kasling Lecturer, Fall 1980*
 PAUL DOMMERMUTH, *Professor* University of North Carolina, Ph.D.

JOY A. BILHARZ, *Assistant Professor* (Anthropology and Sociology) Bryn Mawr College, Ph.D.
JOHN KROUT, *Professor* Pennsylvania State University, Ph.D. *Kasling Lecturer, 1993*
ALAN LaFLAMME, *Professor* (Anthropology) SUNY at Buffalo, Ph.D.
DAVID LARSON, *Professor* Ohio State University, Ph.D.
RAYMOND McLAIN, *Associate Professor* University of Notre Dame, Ph.D.
RICHARD REDDY, *Professor* Boston College, Ph.D.
JERRY D. ROSE, *Professor* University of Wisconsin, Ph.D.
PETER G. SINDEN, *Associate Professor* University of Massachusetts, Ph.D.
B. JOYCE STEPHENS, *Associate Professor* Wayne State University, Ph.D.
JERE WYSONG, *Professor* Purdue University, Ph.D.

Speech Pathology and Audiology

JONATHAN BROWN, *Assistant Professor* Pennsylvania State University, Ph.D.
MITCHELL R. BURKOWSKY, *Distinguished Service Professor* Wayne State University, Ph.D.
JOHN GARRA, *Adjunct Instructor* SUNY College at Buffalo, M.S.
ROBERT A. MANZELLA, *Associate Professor* SUNY at Buffalo, Ph.D.
MICHELE NOTTE, *Clinical Coordinator* SUNY College at Fredonia, M.S. Ed.
BETTY J. ONUFRAK, *Clinical Supervisor* SUNY College at Geneseo, M.S.
JOHN A. ONUFRAK, *Associate Professor* SUNY at Buffalo, Ph.D.
DENNIS M. PEREZ, *Associate Professor* SUNY at Buffalo, Ph.D.
MARC WILCOX, *Clinical Audiologist* SUNY College at Fredonia, M.S. Ed.
MARY ELLEN VAN HOUT, *Clinical Supervisor* Clarion University, M.S. Ed.
ROBERT L. ZIMMERMAN, *Adjunct Associate Professor* South Illinois University, Ph.D.
JOSEPH ZURENDA, *Adjunct Lecturer* City College of New York, M.A.

Theatre Arts

CAROL J. BLANCHARD-ROCHELEAU, *Assistant Professor* Ohio University, M.F.A.
MARY CHARBONNET, *Assistant Professor* University of Virginia, M.F.A.
GARY C. ECKHART, *Professor* Yale University, M.F.A.
ROBERT D. KLASSEN, *Professor* Michigan State University, Ph.D.
THOMAS LOUGHLIN, *Assistant Professor* University of Nebraska, M.F.A.
STEPHEN E. REES, *Associate Professor* Memphis State University, M.F.A.

DIRECTORY OF ADMINISTRATIVE OFFICES

President	Fenton, 673-3456
Associate Vice President for Planning	Fenton, 673-3359
Assistant to the President	Fenton, 673-3358
Secretary to the President	Fenton, 673-3456
Vice President for Academic Affairs	Maytum, 673-3335
Vice President for Development and College Relations	Fenton, 673-3321
Dean of Students, Student Affairs	Maytum, 673-3271
Vice President for Administration	Maytum, 673-3109
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Associate Vice President for Finance and Business	Mayrum, 673-3109
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Assistant Dean of Students, Student Affairs	Mayrum, 673-3271
Dean of Arts and Sciences	Maytum, 673-3173
Dean for Liberal Studies	Thompson, 673-3441
Dean for Educational Studies and Graduate Education	Thompson, 673-3449

Departmental Chairpersons

Art	Arts Center, 673-3537
Biology	Jewett, 673-3282
Business Administration	Thompson, 673-3505
Chemistry	Houghton, 673-3281
Communication	McEwen, 673-3410
Economics	Thompson, 673-3509
Education	Thompson, 673-3311
English	Fenton, 673-3125
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Geosciences	Houghton, 673-3303
Health, P.E., Athletics & Dance	Dods, 673-3101
History	Thompson, 673-3277
Math. & Computer Info. Science	Fenton, 673-3243
Music	Mason, 673-3151
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Physics	Houghton, 673-3301
Political Science	Thompson, 673-3207
Psychology	Thompson, 673-3129
Sociology & Anthropology	Thompson, 673-3205
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Speech Pathology & Audio	Thompson, 673-3203
Theatre Arts	Arts Center, 673-3596

Support Services

Academic Advising	Maytum, 673-3188
Admissions	Fenner House, 673-3251
Arts Center	Arts Center, 673-3217
Bookstore	Campus Center, 673-3531
Campus Center	Campus Center, 673-3143
Career Development	Maytum, 673-3327
College Info. Services	Fenton, 673-3323
Computing Services	Maytum, 673-3393
Continuing Education	673-3177
Counseling Center	Maytum, 673-3424
Creative Support Services	Thompson, 673-3407
Development	Fenton, 673-3321
Educ. Development Program	Thompson; 673-331 7
Education Field Experiences	Thompson, 673-3443
Faculty Student Association	Gregory, 673-3417
Financial Aid	Maytum, 673-3253
Human Resources	Maytum, 673-3434

Institutional Studies	Maytum, 673-3187
Library	Reed Library, 673-3183
Physician	LoGrasso, 673-3131
Public Safety	Gregory, 673-3465
Registrar	Maytum, 673-3171
Residence Life	Gregory, 673-3341
Creative Scholarly Support Services	LoGrasso, 673-3177
Student Accounts	Maytum, 673-3236
Student Support Services Program	Thompson, 673-3461
Summer Session	Thompson, 673-3449

Problem	Office	Location	Phone
Absences			
--Emergency Notification	Student Affairs	6th floor, Maytum	3271
--leave of Absence	Student Affairs	6th floor, Maytum	3271
--Reporting prior to	Instructor	Department	
--Reporting following	Instructor	Department	

*When appropriate, students may be requested to contact the Office of Student Affairs.

Academic Procedures

Courses:

--Selection of	Academic Advisor	Department	
--Credit from other schools	Admissions	178 Central Avenue	3251
--Adds and drops	Registrar	1st floor, Maytum	3171

Required Withdrawal

--Notification	Academic Deans	Dean's Office	
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Grades:

--Change; Complaint	Instructor	Department	
--Mid-semester	Academic Advisor	Department	
--Incomplete	Instructor	Department	

Major:

--Selection of	Academic Advisor	Department	
--Change of	Academic Advisor	Department	

Academic Regulations	Academic Affairs	8th floor, Maytum	3335
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Readmission:

--Request for	Admissions	178 Central Avenue	3251
--Request for reinstatement	Department Chairperson	Department	

Advising	Academic Advising Office	7th floor, Mayrum	3188
	Department	Department	

Career Development/Planning	Career Development	5th floor, Maytum	3327
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Changes in Courses (See Academic Procedures)

Counseling

--Academic	Academic Advising Office	7th floor, Maytum	3188
--Career	Career Development	5th .floor, Maytum	3327
--Financial	Financial Aid	2nd floor, Maytum	3253
--Personal	Counseling Center	5th floor, Maytum	3424

Degree

--Application	Registrar	1st floor, Maytum	3171
--Requirements	Department	Department	

Educational Development Program (EDP)	Educational Development	E286 Thompson	3317
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Education Field Experiences Examination	Office of Field Experiences	E262 Thompson	3443
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--Class	Instructor	Department	
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SUNY COLLEGE AT FREDONIA

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--CLEP	Admissions	178 Central Avenue	3251
--GMAT, GRE, MCAT, LSAT	Counseling Center	5th floor, Maytum	3424
General College Program (GCP)	Dean for Liberal Studies	W109 Thompson	3441
Grades (See Academic Procedures)			
Graduation			
--Requirements	Registrar	1st floor, Mayrum	31 71
--Information	Registrar	1st floor, Maytum	3171
--Cap & Gown	Bookstore	Campus Center	3531
--Tickets	Box Office	1st floor, Campus Center	3501
International Education			
--Foreign Student Advising	International Education Coordinator	LoGrasso Hall	3177
--Foreign Study & Travel			
Internships			
--Albany, Washington	Public Service Coordinator	LoGrasso Hall	3177
--Other	3177		
Minority Student Concerns			
	Academic Advising	7th floor, Maytum	3188
	Student Affairs	6th floor, Maytum	3271
Probation			
--Academic Questions	Academic Affairs	8th floor, Maytum	3335
--Notification	Academic Deans	Dean's Office	
3-1-3 Program			
--Time-Shortened Degree Program		Learning Center	Gregory Hall
	3550		
Registration			
--Program Advising	Academic Advisor	Department	
--Fall, Spring, Summer	Registrar	1st floor, Maytum	3171
Scholarships			
--Inquiries	Student Affairs	6th floor, Maytum	3271
--Fellowships	Financial Aid	2nd floor, Maytum	3253
Special Studies (BASS)			
	Special Studies	W109 Thompson	3441
Student Support Services Program			
	Student Support Services	E294 Thompson	3461
Study Skills			
	Learning Center	113 Gregory	3550
Summer School			
	Dean for Educational Studies	1st floor, Thompson	3449
Test (also see Examinations)			
--Aptitude, Personality	Counseling Center	5th floor, Maytum	3424
--Vocational	Counseling Center	5th floor, Maytum	3424
Transcripts			
--Evaluation Information	Admissions	178 Central Avenue	3251
--Sending Requests	Registrar	1st floor, Mayrum	3171
Writing Skills Improvement			
	Learning Center	113 Gregory	3550

Notes on the Catalog Conversion Process

This catalog is being viewed in the Adobe Acrobat Reader using Portable Document Format (PDF), but was originally prepared for use with a different multi-media viewer.

It was converted from computer files supplied by the school, or the printed catalog was scanned and converted using an OCR (Optical Character Recognition) process. In either case, the catalog's original page formatting was stripped and all photographs and graphics were removed to conserve disk space. The catalog was then reformatted to fit the viewer parameters.

Because of this, the page numbers in the original Table Of Contents and Index were no longer valid and these sections were deleted to avoid confusion. A new, hyperlinked table of contents was then created.

Future editions of this catalog will be converted with a process that better retains page formatting and the original table of contents and index will be hyperlinked.