



Where
Success
is a
Tradition

Undergraduate Catalog 1999-2001

State University of New York College at Fredonia

State University of New York College at Fredonia

1999-2001 Catalog

CollegeSource

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FREDONIA

Welcome

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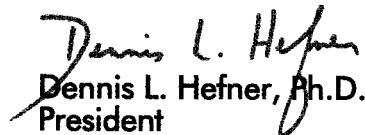
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Welcome to the State University of New York at Fredonia and to the exciting opportunities you will encounter as you pursue your educational goals. You have the enviable task of choosing from a number of different academic paths. Each prepares you to become a leader in an increasingly complex and global world.

Our faculty will introduce you to new ideas, new technologies, and new ways of approaching problems. The courses and programs, both academic and extracurricular, described in this catalog have been designed to assist you in your intellectual and personal development. This catalog is your guidebook to Fredonia - browse through it and use it as a special tool to assist you in getting the most out of your time on campus.

Fredonia's campus motto, 'Where Success is a Tradition,' reflects the positive attitude that faculty and professional staff have towards ensuring student success. This campus-wide commitment accounts for our having one of the highest student graduation rates in the nation, while maintaining a high level of rigor throughout the curriculum.

We are proud of SUNY Fredonia and what it has to offer. Welcome to this remarkable campus.


Dennis L. Hefner, Ph.D.
President



SUNY Fredonia is a leading university college offering you a variety of majors in the arts, humanities, and the natural and social sciences, as well as professional programs in many areas.

Our faculty and professional staff are committed to providing you with a high quality educational experience through classroom teaching, and performance and research opportunities. Faculty are readily available in their offices to meet with you to discuss your academic options, and small class sizes reflect our dedication to a personal approach in helping you to achieve your goals.

In the most recent Student Opinion Survey administered throughout the State University of New York by the American College Testing Service, current Fredonia students rated us the highest of the participating university colleges for our opportunities for personal involvement, our classroom facilities and study areas, our cultural arts programs, and the general condition of our buildings and grounds.

Fredonia's 266-acre campus 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.

Our history dates back to 1826, when the citizens of Fredonia recognized the importance of higher education and established the Fredonia Academy.

For more information,
visit our home page at
www.fredonia.edu

Community and Region

We are located within the village of Fredonia in the heart of northern Chautauqua County at Exit 59 of the New York State Thruway. Our students have the advantages of a small campus but are just a short drive away from the major metropolitan areas of Buffalo, N.Y. and Erie, Pa. Just a few hours away are Toronto, Canada, and Cleveland, Ohio.

The village of Fredonia is distinguished by beautiful tree-lined avenues, Victorian-era architecture, and the warmth of its citizens. Our neighboring city of Dunkirk is located on the shores of Lake Erie, which along with Chautauqua Lake offer opportunities for swimming and boating during the summer, and ideal locations for faculty/student research projects in the natural sciences. Nearby ski centers beckon during the winter months and miles of hiking trails at our college camp attract outdoor enthusiasts. Nationally-known Chautauqua Institution provides a wealth of cultural and educational activities during the summer months which, along with events at SUNY Fredonia, sustain a wonderful atmosphere of creativity throughout the seasons.

Western New York, and specifically, Chautauqua County, with its many vineyards, lush forests, and rolling hills reflecting the seasons, is a wonderful setting for SUNY Fredonia, and the perfect place for you to pursue your dreams.

Your Educational Experience

Everyone at Fredonia is concerned with your development as an individual, including personal and educational growth. We provide opportunities in and outside of the classroom which reflect an educational philosophy based on the evolution of the total student.

Our curriculum is strengthened by a nationally-recognized General College Program, a core of liberal education studies you'll complete regardless of your major. Our students receive support and guidance through our office of Academic Advising, and our Honors Program provides unique educational opportunities to highly motivated students.

At Fredonia, internships are available and encouraged in several academic areas, and you are able in many cases to be active in faculty research, often culminating in presentations at academic conferences. You also can participate in international education programs conducted by Fredonia and other cooperating colleges and universities.

Fredonia graduates are success stories. They include recipients of the Emmy and Academy Award, teachers of the future leaders of America, and stars at the Metropolitan Opera and in opera houses throughout the world. They also are judges and lawyers, doctors and nurses, clergy and missionaries, and scientists recognized around the world for groundbreaking research.

Many of our outstanding graduates attribute their success to the foundation they built at SUNY Fredonia.

In Support of Your Education

At Fredonia, we believe that for students to achieve success, academic programs require the support of the entire college community. Our academic and student services are exceptional, and reflect our dedication to your growth and development.

Reed Library has vast resources, including a music library. Electronic technology on campus includes several computer labs and our Media Center, which provides tools and hands-on instruction you'll use to complete academic projects. Our Learning Center's philosophy envisions peer tutoring as a symbiotic relationship in which tutors benefit right along with the students they serve. Fredonia's Counseling Center staff helps to empower students to resolve the complex issues they face during their college years, and our Student Health Center emphasizes wellness and health awareness. In addition, our Career Development Office provides a link between the campus and the world of work.

Our scholarship programs assisted more than 270 students this year. Over \$266,000 was awarded to deserving Fredonians. In addition, our Financial Aid Office works diligently to help you to obtain maximum aid through federal and state programs.

Your Life on Campus

The strength of a college is often measured solely on the quality of its academic programs. At Fredonia, we believe a combination of great educational options combined with a high quality of student life is the right formula for success.

Fredonia's residence halls provide you with a comfortable and secure atmosphere for living and learning. Residence life has the added advantage of activities planned by residents, and a popular program brings alumni back to the college to share their experiences "after Fredonia." Your options abound in food services, whether you're a resident or commuter student. You can eat traditional meals in a dining center or choose from the great variety of foods served in the relaxed atmosphere of the Williams Center.

Participation in student activities, campus governance, and sports can contribute to a heightened sense of self-awareness and self-assurance. At SUNY Fredonia, we have many clubs and activities related to academic majors, including our student newspaper and radio and television stations. Music, dance and theatre activities are open to all students, regardless of major. There are Greek organizations and a Leadership program. In addition, we have many intramural and intercollegiate sports teams, and several of our students are recognized by the State University of New York as superb scholar-athletes.

Strong academic programs and a high quality of student life make Fredonia a great place for you to pursue your personal goals for the future.

Come to Fredonia

**Where success
is a tradition.**

ACADEMIC PROGRAMS AND AREA SPECIALIZATIONS

Curriculum	Page No.		
Accounting	3	*Computing in General Sciences	Geographic Info. Systems 66
Acting	140	*Computing with Mathematical Modeling	Geosciences 67
Agriculture (cooperative) Programs with: Cornell Agr. & Life Sciences	6	Geographic Information Systems 66	Earth Sciences 68
American Studies	7	*Management Information Systems	Environmental Sciences 61
Art	7	*Theoretical Computer Science	Geochemistry 68
*Ceramics		Criminal Justice 37	Geographic Information Systems 66
*Drawing		Dance 38	Geology 68
*Graphic Design		Earth Sciences 68	Geophysics 68
*Art History		Secondary Education 67	Secondary Education 67
*Illustration		Economics 39	Gerontology 71
Media Arts	90	*Business and Financial Economics	Health Services Admin. 71
*Painting		*Data Analysis and Computer Applications	History 75
*Photography		*International Political Economy	*American Culture
*Printmaking (support courses)		*Public Policy and Economics	*Global Studies
*Sculpture		*Secondary Education	*Middle East-Asian History
Arts Administration	12	Education 43	*Native American Cultures
Biology	14	*Early Childhood Education 44	*North American Cultures
Biochemistry 13		Elementary Education 44	Secondary Education 76
Environmental Sciences 61		Middle School Extension 47	Industrial Management 81
Medical Technology 94		Secondary Education 48	Interdisciplinary Studies 82
Pre-Dental 123		Biology	African American Studies 96
Pre-Medicine 123		Chemistry	American Studies 7
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Secondary Education 15		French	Dance 38
Business Administration	19	Mathematics	Electronic Publication 53
Accounting 3		Music	Environmental Sciences 61
*Finance		Physics	Geographic Information Systems 66
*Management		Social Studies 48	Gerontology 71
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*Marketing		Special Education 46	Latino Studies 96
Music Business 110		Electronic Publication 53	Legal Studies 86
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Secondary Education 23		Case West. Reserve University	*International Political Economy
Communication	26	Clarkson University	*Peace and Conflict
*Audio/Radio Production		Columbia University	*European Cultural Studies
*Human Communication		Cornell University	*Cultural Studies of the Americas
Media Arts	90	Louisiana Technological University	*The Developing World
*Media Management		Ohio State	Legal Studies 86
*Video Production and Design		Rensselaer Polytechnic University	Mathematics 86
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*Computer Information Systems		Syracuse University	Mathematics-Physics 114
*Computer Systems Software		Tri-State University	Secondary Education 87
		English 55	Media Arts 90
		Electronic Publication 53	*General Program 90
		Secondary Education 56	*Corporate Multimedia 91
		Environmental Sciences 61	*Media Arts/Theatre 91
		French 62	*Music/Sound Production 91
		Secondary Education 62	*Interactive Design 92
			*Computer Art 92

Medical Technology	94	Legal Studies	86	Minors
Multiethnic Studies	95	*Public Law & Policy		A "minor" is a specified minimum
African American Studies	96	*Political Economy		number of hours recorded on official
Latino Studies	96	*Political Theory		transcripts, but involving fewer
Music	97	Pre-Medicine	123	hours than a major.
Applied Music	98	Psychology	123	Accounting
*Composition	99	Recombinant Gene Tech.	127	African American Studies
*Performance	99	Social Work	127	American Studies
Musical Theatre	109	Sociology	130	Anthropology
Music Business	110	Anthropology	131	Applied Mathematics
Music Education	98	Criminal Justice	37	Art History
*General Choral		Gerontology	71	Art Studio
*Instrumental		Health Services Admin.	71	Arts Administration
Music History and Literature		Social Work	127	Athletic Coaching
Music Theory	98	Sound Recording Technology	135	Biology
Music Therapy	100	Spanish	62	Business Administration
Sound Recording Technology	135	Secondary Education	62	Chemistry
Philosophy	111	Special Education Program	46	Communication
Physics	113	cooperative with:		Computer/Info. Science
Engineering	53	SUNY College at Buffalo		Criminal Justice
Geophysics	68	Speech Pathology/Audiology	136	Dance
Mathematics-Physics	114	Communication Disorders		Earth Sciences
Secondary Education	115	and Sciences	137	Economics
Political Science	117	Speech and Hearing		Educational Studies
*American Politics		Handicapped	136	Electronic Publication
*Comparative Politics		Theatre	138	English
Criminal Justice	37	Acting	140	Foreign Languages
Geographic Information Systems	66	Musical Theatre	109	Geographic Information
*Government and Politics		Production Design	140	Systems
*International Political Economy		Women's Studies	143	Geosciences
*International Politics		* indicates area specialization		Gerontology
				Health Services Administration
				History
				Industrial-Organizational
				Psychology
				Latino Studies
				Legal Studies
				Management Info. Systems
				Mathematics
				Music
				Philosophy
				Physics
				Political Science
				Psychology
				Sociology
				Speech Pathology and
				Audiology
				Theatre Arts
				Women's Studies

UNDERGRADUATE STUDIES

This next section lists the undergraduate courses, many offered each semester, some in alternate semesters, and a few either in alternate years or in summer sessions. Students should 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.

Information in this catalog is accurate as of January 1, 1999. However, all information is subject to change. Updated information may be obtained from the Office of Admissions, 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 Publication Services.

SUNY 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 the Director of Affirmative Action, 143 Fenton Hall, (716) 673-3358.

A SUNY-wide grievance procedure is available to all students and employees in cases of discrimination. A person who feels he/she has been a victim of discrimination for any of the above reasons, should feel free to contact the Director. Persons who wish to initiate such a grievance or complaint should also feel free to bring a friend or advisor with them.

Accreditation

SUNY 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 Schools of Theatre

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

ACCOUNTING

Office: W301 Thompson Hall
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E-mail: Account@fredonia.edu
Thomas Rywick, Chairperson

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 Natural and Social Sciences and Professional Studies.

The accounting program offers the degree, B.S. in Accounting, which qualifies graduates to take the Certified Public Accounting (CPA) Examination. Additionally, graduates are qualified to sit for the Certified Management Accounting 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 19 for more information).

The Department of Business Administration has entered into formal agreements for the fifth year of accounting that leads to a master's degree in Accounting at SUNY Oswego and SUNY at Buffalo as well as other arrangements for an M.B.A. (See page 19 under Business Administration for details.)

These arrangements will provide a means for students to meet the 150 hour requirement to sit for the CPA exam in many states, while New York State's requirement goes into effect in 2008.

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 Financial Management Association, 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 Bachelor of Science 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 Financial Accounting	3
AC 202 Managerial Accounting	3
AC 301 Intermediate Accounting I	3
AC 302 Intermediate Accounting II	3
AC 303 Cost Management	3
AC 304 Taxation of Individuals	3
AC 305 Taxation of Corporations and Partnerships	3
AC 311 Business Law I	3
AC 312 Business Law II	3
AC 321 Accounting Processes	1
AC 322 Accounting Practice	1
AC 401 Advanced Accounting	3
AC 405 Auditing	3
AC 421 Accounting Cycles	1
BA 164 Introduction to M.I.S.	3
BA 315 Principles of Finance	3
BA 317 Corporate Finance or	3
BA 416 Investment Analysis	
BA 321 Management and Org. Behavior	3
BA 325 Principles of Marketing	3
BA 364 Management Information Systems I	3
BA 423 Strategic Management and one of the following:	3
BA 327 (if not taken for managerial track), BA 427, BA 464 or AC/BA 480	3

Students may select the managerial track by taking BA 327 rather than AC 304, and BA 427 as the alternate. EC 300 is recommended.

Total accounting and business administration 60

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

BA/	Fundamentals of Statistics for	3
EC 200	Business and Economics	
EC 201	Principles of Macroeconomics	3
EC 202	Principles of Microeconomics	3
MA 120	Survey of Calculus I	3
	Electives in liberal arts and sciences (see Section 4 below)	48
	Total liberal arts and sciences	60

4. 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.

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

Requirements for the Minor in Accounting

The Department of Business Administration offers a minor in Accounting which requires 18 credit hours in accounting. Included within the 18 hours must be AC 301 plus two upper level courses in accounting plus the necessary prerequisites. An example would be: AC 304, AC 305, AC 311 plus AC 201, AC 202, and AC 301 (the required prerequisites). The approval of the entire minor program requires the advisement of the chairperson.

In the list of courses below, 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

AC 201. Financial Accounting A

An introduction to financial accounting theory and practice, including generally accepted accounting principles (GAAP). Emphasis is given to the use of basic financial accounting concepts to make better, more informed business decisions.

Prerequisite: sophomore standing.

3 hours credit

AC 202. Managerial Accounting A

An introduction to managerial accounting theory and practice. Emphasis is given to the use of accounting techniques and concepts in managing, controlling, and decision-making within the organization.

Prerequisite: AC 201.

3 hours credit

AC 301. Intermediate Accounting I B

An in-depth study of the theory and application of generally accepted accounting principles. Emphasis is given to the environment of financial accounting including the standard setting process and the conceptual framework. Specific topics include the time value of money, receivables, inventories, long-term assets, and current liabilities, intangibles, and contingencies.

Prerequisite: AC 202. Offered every fall semester. Co-registration in AC 322 is required.

3 hours credit

AC 302. Intermediate Accounting II B

A challenging course including the rigorous study of theory and application of generally accepted accounting principles to complex accounting topics including stockholders' equity, revenue recognition, earnings per share, pensions, leases, accounting for taxes, accounting changes and error analysis, and cash flows.

Prerequisite: AC 301. Offered every spring semester. Co-registration in AC 322 is required.

3 hours credit

AC 303. Cost Management B

A study of the concepts and techniques of management and cost accounting including cost-volume-profit analysis, various product costing methods, cost behavior and allocation, and other internal accounting information needs for management decision-making. Computer software is used in solving application problems.

Prerequisite: AC 202.

3 hours credit

AC 304. Taxation of Individuals B

An in-depth study of U.S. taxation of individuals including tax policy considerations and the historical development of tax law. The

provisions of the Internal Revenue Code and related regulations will be used extensively.

Prerequisites: AC 201; AC 202.

3 hours credit

AC 305. Taxation of Corporations and Partnerships B

An in-depth discussion of federal income taxation of multi-national corporations and partnerships. Tax issues connected to formation, operation, distributions, liquidation will be examined. Other topics discussed include: special tax assessments like the alternative minimum tax, the personal holding company tax, and the accumulated earnings tax, "S" corporations, taxation of international transactions, and tax research.

Prerequisites: AC 201 and AC 202.

3 hours credit

AC 311. Business Law I B

A general study of the functions and procedures of law. Included will be a detailed analysis of legal principles governing contracts, torts, agency and business organizations. This course represents the first half of the Business Law sequence. It is designed to provide accounting students with the required knowledge and theory for the CPA examination, by paying particular attention to practical business law problems involving the application of legal principles.

Prerequisite: Complete GCP Ia and Ib.

3 hours credit

AC 312. Business Law II B

A continuation of the study of law begun in AC 311. Topics covered include Uniform Commercial Code subjects such as commercial paper, secured transactions, and sales, and other areas of law including bankruptcy, debtor/creditor relations, product liability, estate and trust law, and property, accountant liability and international law. Continuing attention is given to particular issues involving application of the principles discussed.

Prerequisite: AC 311.

3 hours credit

AC 321. Accounting Processes B

A mini-course to be taken with AC 301 that examines accounting processes, and the related methodology for recording transactions and preparing financial statements.

Prerequisites: AC 202. Co-registration in AC 301 is required.

1 hour credit

AC 322. Accounting Practice B

A mini-course to be taken with AC 302 which provides lab instruction to accompany topics under study in AC 302.

Prerequisites: AC 301. Co-registration in AC 302 is required.

1 hour credit

AC 401. Advanced Accounting B

Extension of financial accounting to the study of additional accounting entities such as partnerships and consolidated and multi-national firms. Topics include accounting for mergers and acquisitions, consolidated financial statements, international transactions, and an introduction to fund accounting.

Prerequisite: AC 301. Co-registration in AC 421 is required.

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 421. Accounting Cycles B

A mini course to be taken with AC 401 that emphasizes accounting cycles and the interrelationships of the accounts.

Prerequisite: AC 401. Co-registration in AC 401 is required.

1 hour credit

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 D

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 pos-

sible 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

(Acting, see Theatre and Dance, page 138.)

(African American Studies, see Multiethnic Studies, page 95.)

AGRICULTURE (COOPERATIVE)

Office: 116 Houghton Hall
(716) 673-3302

E-mail: Agri@fredonia.edu

Peter G. Mattocks, *Director*

This cooperative program developed jointly by SUNY 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
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
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 at SUNY Fredonia, providing the student has satisfied 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 SUNY 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 SUNY Fredonia's Interdisciplinary Studies program which allows the student to design his/her own Cooperative Agriculture program. The curriculum the student takes at SUNY 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 SUNY 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

Office: 257 Fenton Hall

(716) 673-3848

E-mail: American@fredonia.edu

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 American business, government and education.

This is an interdisciplinary model major program; for specific degree requirements unique to Interdisciplinary Studies, refer to page 82.

Requirements for the Major in American Studies

1. Fifteen hours in exploratory and preparatory courses selected from:

AM 200 Intro. to Popular Culture

EN 296 Sex, Violence and Racism in American Literature/Culture

HY 338, 339 19th & 20th Century American Culture

HY 351 Defining America

HY 353 Creating American Consumer Culture

or other courses as advised.

2. Thirty-six credit hours from courses in the following areas: art and architecture; communications and mass media; economics; English; environmental sciences; history; legal studies; philosophy; political science; psychology; and sociology/anthropology, distributed as follows:

18 credit 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.

Requirements for the Minor in 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, and Racism in American Literature/Culture

HY 338-339 19th and 20th Century American Culture

HY 351 Defining America, or other approved offerings

In the list of courses below, 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

AM 200. Introduction to Popular Culture **C**

Development of the popular arts and modes of entertainment in America, including mass media; consideration of methods, aesthetics, 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 **B**

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.

Prerequisites: AM 400 or senior standing and permission of coordinator.

3-15 hours credit

ART

Office: 213 Rockefeller Arts Center

(716) 673-3537

E-mail: Art@fredonia.edu

Mary Lee Lunde, *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 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. Upon graduation the student may look to the public sector or graduate school for career opportunities. Former students hold jobs as art directors, freelance artists, teachers, college professors, working artists, business owners of potteries and design firms, and gallery directors and curators.

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 His-

tory. Admission to the department in Studio Art or Graphic Design requires the submission of an acceptable portfolio for both freshman and transfer students. Prospective students may send 10 to 20 slides, or schedule an in-person review. All accepted students must have slides on file. Information about how to shoot slides and what should be included in the portfolio is available from both the department and the Office of Admissions.

Workshops and trips are sponsored throughout the academic year by Art Forum, the art students' club. Glass blowing, software demonstrations and paper making are examples of past workshop offerings. Art Forum also sponsors trips to major art museums in cities like New York, Toronto, Pittsburgh and Cleveland.

Internships are available for the student who wants practical experience in addition to his/her class work. The department, as well as the Office of Internships (see page 147), will assist the student in setting up the internship either in the United States or abroad.

The Alford Bjurlin Scholarship, the George W. Booth Scholarship, and the Marano-Gnirke Scholarship are available to students on an annual basis. Every third year, the Robert W. Marvel Scholarship is available to currently enrolled students.

In the practice of art, after completing the basic sequences of the core program, the student must 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 may do so if they have attained at least a 3.0 average in art courses taken at Fredonia after completing a minimum of 27 credits in the core program. A 2.0 is required for courses taken outside the department. Transfer students should note that only courses taken at Fredonia will count towards the required grade points.

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

Studio Art Concentration

Bachelor of Arts Degree (Core plus 21 hours of Concentration Requirements)

Bachelor of Fine Arts Degree (Core plus 33 credit hours of Concentration Requirements)

Core Program: 36 Hrs.

AR 115	Masterpieces-Art to 1400	3
AR 116	Masterpieces-Art from 1400 to the Present	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 or	3
AR 274	Ceramics II	
AR 285	Painting I	3
Art History		3

Bachelor of Arts Degree Concentration Requirements: 21 credit 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		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		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		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		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		3

Illustration

AR 380	Illustration I	3
AR 381	Illustration II	3
AR 420	Illustration III	3
AR 421	Illustration IV	3
AR 263	Printmaking I	3
AR 253	Life Drawing II	3
Art History		3

Bachelor of Fine Arts Degree Concentration Requirements: 33 credit hours in one area (plus AR 120 Visiting Artists program each semester)

Painting

AR 286	Painting II	3
AR 253	Life Drawing II	3
AR 350	Painting III	3
Studio Elective		3
Art History/Studio Elec.		3
AR 386	Painting IV	3
AR 441	Directed Studio Painting	3
AR 495	Independent Studio Painting	3

AR 350	Drawing III	3
Studio Elective		3
Art History - Advised		3

Photography

AR 256	Photography II	3
AR 355	Photography III	3
Art History (Independent Photography)		3

Studio Electives		12
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AR 350	Drawing III	3
AR 356	Photography IV	3
AR 441	Directed Studio Photography	3
Art History - Advised		3

Sculpture

AR 274	Ceramics II	3
Art History		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

Ceramics

AR 258	Sculpture II	3
Art History		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

Drawing

AR 263	Printmaking I	3
AR 253	Life Drawing II	3
AR 350	Drawing III	3
AR 285	Painting II	3
AR 370	Drawing IV	3
AR 441	Directed Studio Drawing	3
AR 495	Independent Study	3
Art History		3
Studio Elective		6
Art History - Advised		3

Illustration

AR 253	Life Drawing II	3
AR 263	Printmaking	3
AR 350	Drawing III	3
AR 353	History of Graphic Design	3
AR 356	Production for Graphic Design	3
AR 380	Illustration I	3
AR 381	Illustration II	3
AR 420	Illustration III	3
AR 421	Illustration IV	3
AR 441	Directed Studio Illustration	3
Studio Elective		3

Graphic Design Concentration

Bachelor of Arts Degree (Core plus 24 hours of Concentration Requirements) plus AR 120 Visiting Artists Program each semester

Bachelor of Fine Arts Degree (Core plus 33 credit hours of Concentration Requirements) plus AR 120 Visiting Artists Program each semester

Core Program: 33 Hrs.

AR 115	Masterpieces - Art to 1400	3
AR 116	Masterpieces - Art from 1400 to the Present	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 Ceramics I	3
AR 273	Ceramics I	
AR 258	Sculpture II	

AR 274	or Ceramics II	3
AR 285	Painting I	3
Art History		3

Bachelor of Arts Concentration Requirements:

15 credits from Graphic Design or Typography courses in sequence	15	
Studio Electives	6	
AR 353	History of Graphic Design	3

Bachelor of Fine Arts**Concentration Requirements:**

AR 260	Graphic Design II	3
AR 353	History of Graphic Design	3
AR 359	Graphic Design III	3
AR 360	Graphic Design IV	3
AR 361	Typography I	3
AR 362	Typography II	3
AR 365	Production for Graphic Design	3
AR 366	Typography III	3
AR 401	Graphic Design V	3
AR 402	Graphic Design VI	3
Studio Elective		3

Art History Concentration

Bachelor of Arts Degree (36 credit hours):

AR 115	Masterpieces - Art to 1400	3
AR 116	Masterpieces - Art from 1400 to the Present	3
Art History Courses as Advised		24
Selected Studio Courses		6
Recommended: 6 additional credit 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 the student's departmental file.

All graduating art majors must complete the last semester of the senior year enrolled at the SUNY 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.

Requirements for the Minor in Art History

18 credit hours:

AR 115-116 (6 credit hours); two courses selected from 200 level art history offerings (6 credit hours); one course from the 300 level (3 credit hours); and one course from the 400 level art history (3 credit hours).

Requirements for the Minor in Art Studio

21 credit hours:

AR 115 or AR 116 (3 credit hours); two courses (6 credit hours) selected from the AR 150, 151, and 155 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 credit 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 Interdisciplinary Studies program, students with special educational goals not fully served by traditional programs, may, with the aid of an academic advisor and the Associate Vice President for Academic Affairs or the Registrar, propose an alternative preparatory curriculum in the following career-oriented areas: arts administration, art therapy, and communications design. Some of these B.A. in Interdisciplinary Studies alternatives are already operational, others are in the process of being formulated.

In the course listings below, 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

AR 100. Visual Concepts D
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 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 in modes of expression, use of color, pastels, and collage.
Prerequisite: AR 150.
3 hours credit

AR 155. 2-Dimensional Design 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 215. Readings in Art History D
The nature of art history, the themes and ideas it investigates, and readings in some key "classic" authors, are the main topics of the course.
Prerequisite: 3 hours of art history or permission of department.
3 hours credit

AR 251. Art and 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 of art history or permission of department.
3 hours credit

AR 252. Life Drawing I A
Intensive drawing course related to the human figure. The figure is explored in various mediums and in both realism and abstraction. Research papers and readings out of the textbook are required.
Prerequisite: AR 150 or permission of department.
3 hours credit

AR 253. Life Drawing II A
Continued concentration on drawing the figure with more emphasis on use of color medium. Research papers will deal with contemporary and traditional artists whose work dealt with the figure.
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. Tech-

niques 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, collagraphs and monoprints. 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 in color theory and formal compositional elements.
3 hours credit

AR 286. Painting II A
Exploring various approaches to paint application, learning professional approaches for building frames and stretching canvas. Indi-

vidual directions are encouraged. Research papers and assigned reading are required.
Prerequisite: AR 285.

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 credit hours of 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 credit hours of 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

AR 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.

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 credit hours of 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 credit hours of art history or permission of department.

3 hours credit

AR 350. Drawing III B

Advanced studio course dealing in experimentation with media and styles. Alternatives to traditional drawing approaches are ex-

plored and thematic development is stressed.

Prerequisites: AR 150, 151.

3 hours credit

AR 351. Special Topics: Art History D

Selected areas of history of art supplementing the regular program.

Prerequisite: 3 credit hours art history or permission of department.

1-3 hours credit

AR 352. Special Topics: Studio Art D

Selected studio media and techniques.

Prerequisite: permission of department.

1-3 hours credit

AR 353. History of Graphic Design C

A survey of the history of graphic design from the invention of writing to computer graphics.

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 III, 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.

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 C

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 366. Typography III B

An advanced exploration of typography as an expressive and functional vehicle.

Prerequisite: AR 359.

3 hours credit

AR 367. Word and Image D

An intensive study in the combination of two-dimensional photographic and typographic arrangement. Emphasis is on exploring the narrative potential of typographic design.

Prerequisite: junior level art major.

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 non-traditional 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 black and white format.
Prerequisites: 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. Painting III A

Further exploration and refinement of professional practices while beginning to explore issues relating to contemporary art. Research papers are assigned, readings are required.

Prerequisite: AR 286.

3 hours credit

AR 386. Painting IV A

Begin exploring professional practices relating to shooting slides, portfolio and exhibition preparation. Continued readings and papers on issues found in contemporary art and its relationship to painting.

Prerequisite: AR 385.

3 hours credit

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 441. 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 441. Directed Studio Projects A

Directed studio work in all media. Student meets with designated faculty member on a regular basis throughout the semester. Sound background in area of investigation required. Student must file acceptable plan for proposed project.

Prerequisite: permission of department.

1-3 hours credit

AR 442. 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 credit hours of art history or permission of department.

3 hours credit

AR 494. Independent Study: Art History A

Independent research in specific areas of art history, stressing depth of inquiry and development of topic. Subject of study chosen in consultation with department.

Prerequisite: permission of department.

1-3 hours credit

AR 495. Independent Studio Projects A

Independent studio work in all media. Sound background in area of investigation required. Student must file acceptable plan or proposed project.

Prerequisite: permission of department.

1-3 hours credit

ARTS ADMINISTRATION

Office: G-15 Rockefeller Arts Center
(716) 673-3217

E-mail: Artadmin@fredonia.edu

Jefferson Westwood, Coordinator

The world of the performing and visual arts needs not only talented, creative artists; it also needs skilled and perceptive administrators and managers. Seeking to fill this need, the major in Arts Administration prepares students for entry level work with organizations such as symphony orchestras, arts centers and museums as well as opera, theater and dance companies. The major in Arts Administration combines courses from a variety of departments and includes practica and internship experience which may range from 6 to 15 credit hours. In addition, to ensure an in-depth understanding of at least one arts discipline, each Arts Administration major is required to complete a minor in music, theater, art or dance.

The Arts Administration major is closely allied with the college's Michael C. Rockefeller Arts Center, a three-theater, two-gallery complex which offers extensive internship and employment opportunities for qualified students. Through a combination of the academic course work, internships and the extracurricular opportunities available on campus, students become qualified to work in such areas as marketing, fund raising, operations, and general arts management. A number of students have also gone on to successfully pursue graduate study in the field.

This is an interdisciplinary model major program; for specific degree requirements unique to interdisciplinary studies, refer to page 82.

Courses in the Major:

Business and Accounting

BA 164	Introduction to Management Information Systems	3
AC 201	Financial Accounting	3
AC 311	Business Law (or BA 310 Legal Environment of Business)	3

Statistics - any *one* course in statistics from the following list:

EC 200	Fundamentals of Statistics for Business and Economics	3
SO 200	Statistics for Sociologists	3
PY 200	Statistics	3

Communication/Psychology

BA 235	Business Communication (or CM 235 Business Communication)	3
CM 301	Group Communication (or PY 355 Group Dynamics)	3

English

EN 270	Intro. to Print Media	3
EN 370	Reporting and Newspaper Writing I (or EN 368 Introduction to Public Relations)	3

Philosophy

PL 310	Administrative Ethics	3
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Arts Administration (3 credit hours minimum/15 maximum)

AA 400	Arts Administration Practicum (or AR 472 Gallery Practicum)	3-6
AA 490	Arts Administration Internship	0-15
Total Credits in Major:		30-42

Requirements for the Minor in Arts Administration

The minor combines courses from business, accounting, communication, English, philosophy and arts administration to equip students with some of the basic knowledge and skills they will need for entry-level work with orchestras, theaters, dance companies and similar organizations. See also the description of the major in Arts Administration. The minor is recommended for students majoring in music, theater or art who wish to gain a better understanding of the business aspects of their discipline.

Courses in the Minor Hrs.

Business and Accounting

BA 164	Introduction to Management Information Systems	3
AC 201	Financial Accounting	3

Communication/Psychology

BA 235	Business Communication (or CM 235 Business Communication)	3
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English

EN 270	Intro. to Print Media	3
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Philosophy

PL 310	Administrative Ethics	3
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Arts Administration

AA 400	Arts Administration Practicum (or AR 472 Gallery Practicum)	3
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Total Credits in the Minor: 18

On the list of courses below, 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

AA 400. Arts Administration A Practicum

Supervised direct working experience serving on the support staff of the Michael C. Rockefeller Arts Center. Individual or team assignments may include front-of-house management, usher corps coordination, public relations, publicity, marketing research, database management, and project planning and implementation.

Prerequisites: sophomore standing and permission of instructor.

3 hours credit

AA 490. Arts Administration A Internship

Upper level experiential learning opportunity through on-campus or off-campus placements. Nature of work will vary from placement to placement. This course is generally reserved for majors and students are responsible for finding and negotiating their own placement. Course requires students to complete a Learning Contract in accordance with college guidelines before the start of the internship.

Prerequisites: junior standing and permission of instructor.

3 hours credit

BIOCHEMISTRY

Office: 203 Jewett Hall
(716) 673-3282

Roger A. Byrne, Chairperson

Office: 207 Houghton Hall
(716) 673-3281

Thomas S. Janik, Chairperson
E-mail: Biochem@fredonia.edu

Biochemistry is at the core of modern science, enabling fundamental advances in medicine, agriculture, industry and basic science. Indeed, biochemists conduct some of the most exciting research in science today, and careers in biochemistry rank

among the highest on almost every published list of "Best Careers." Fredonia's Bachelor of Science degree program in Biochemistry is administered jointly by the departments of Biology and Chemistry. With its emphasis on mastery of technical and analytical skills in biochemistry, Fredonia's program is designed to prepare students for graduate school, medical school, or careers in biochemical research. It also provides a broad foundation in the liberal arts, enhancing graduates' abilities to meet challenges in a shifting social climate. Fredonia's program offers a unique flexibility in that students can choose between two tracks: one with a chemical emphasis for studying molecular structure and function, and one which enables students to apply a biochemical perspective to physiological problems. Course requirements of the degree program are listed below. Although not required, participation in undergraduate research in either biology or chemistry is encouraged. For course descriptions, see the listings under the appropriate department heading; biology, page 14, and chemistry, page 23.

Requirements for the Bachelor of Science Degree in Biochemistry

Core Program:

BI 141-142	Plant Diversity and Ecology & Lab or	4
BI 144-145	Animal Diversity and Evolution & Lab	4
BI 241-242	Introductory Cell Biology & Lab	4
BI 333-334	Biochemistry & Lab	4
BI 370	Advanced Biochemistry	3
BI 335	Genetics	3
BI 340	Cell and Subcellular Biology	3
CH 115-116	General Chemistry I and II & CH 125-126 (Labs)	8
CH 215-216	Organic Chemistry I and II & CH 225-226 (Labs)	8
CH 317/327	Analytical Chemistry & Lab	4

CH/BI 465	Advanced Experimental Biochemistry	2
CH/BI 397	Biochemistry Seminar I	1
CH/BI 497	Biochemistry Seminar II	1
CS 100-Level Course		3
		Total: 48 hours

Track I (Chemical Emphasis)

CH 315-316	Physical Chemistry I and II & CH 325-326 (Labs)	8
MA 122-123	University Calculus I and II	8
PH 230-231	General Physics I and II & PH 232-233 (Labs)	8
BI and/or CH	Approved Upper-level Electives (listed below)	6
		Total: 30 hours

Track II (Biological Emphasis)

BI 443	Plant Physiology or	3
BI 336-337	Mammalian Physiology & Lab	4
CH 314	Principles of Physical Chemistry or	3
CH 315	Physical Chemistry I	
MA 120-121	Survey of Calculus I and II or	6
MA 122-123	University Calculus I and II	8
PH 121-122	College Physics I and II & PH 123-124 (Labs) or	8
PH 230-231	General Physics I and II & PH 232-233 (Labs)	
BI and/or CH	Approved Upper-Level Electives (listed below)	9
		Total: 29 or 30 hours

Approved Chemistry Electives

CH 230	Advanced Organic Lab	1
CH 318/328	Analytical Chemistry II	5
CH 395	Introduction to Research	1
CH 391/491	Independent Lab Research	3
CH 407	Organometallics	3
CH 412	Advanced Organic Chemistry	3
CH 417/418	Polymer Chemistry I & II	3
CH 472	Inorganic Chemistry	3
CH 473	Environmental Chemistry	3
CH 481	Special Topics in Chemistry*	1-3

*Must be approved by coordinator

Approved Biology Electives

BI 336	Mammalian Physiology	3
BI 338	Microbiology	3
BI 435	Developmental Biology	3
BI 440	Undergraduate Research	3
BI 443	Plant Physiology	3
BI 451	Biomembranes	3
BI 451	Eukaryotic Gene Expression	3
BI 451	Hormone Mechanisms	3

BI 451	Microbial Genetics	3
BI 451	Radiation Biology	3
BI 460	Recombinant Gene Technology	3

Note: No more than 3 credit hours of BI 440 or CH 391/491 can be used to satisfy BI/CH electives.

In the list of courses below, 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**CH/BI 370. Advanced Biochemistry B**

A continuation of BI 333, the course explores biochemical concepts and pathways with an emphasis on problem solving. Cellular control and coordination of biochemical pathways is emphasized in light of an advanced understanding of protein biochemistry. Lecture only.

Prerequisite: BI 333.

3 hours credit

BI/CH 465. Advanced Experimental Biology B

State-of-the-art biochemical and molecular techniques are taught within hands-on, laboratory-based mini-courses. Potential topics include the polymerase chain reaction (PCR), oligonucleotide synthesis, DNA/protein sequencing and analysis (BLAST, DNASIS), pulse-field gel electrophoresis, gas chromatography-mass spectroscopy (GC-MS), nuclear magnetic resonance (NMR) spectroscopy, high performance liquid chromatography (HPLC), immunochemistry, and/or other contemporary techniques. Biochemistry majors must complete a minimum of two credits of this course.

Prerequisite: BI 334.

1 hour credit each

CH 314. Principles of Physical Chemistry B

A one semester introduction to physical chemistry intended primarily for biology and biochemistry majors. It emphasizes thermodynamics and kinetics, especially as applied to biological phenomena. Also included will be discussions of transport processes, solutions and electrolytes. Quantum chemistry will be briefly discussed. The course is only for biochemistry majors pursuing the biological emphasis track.

Prerequisite: MA 121 or 123, PH 122 or 231, CH 116.

3 hours credit

CH/BI 397. Biochemistry Seminar I B

Current biochemical research papers are analyzed in a "journal club" (open discussion) format. The course helps students to develop critical reading skills and underscore how an array of biochemical techniques are applied to address a research problem. Faculty from both departments participate in the seminar.

Prerequisite: Junior standing in the program.

1 hour credit

CH/BI 497. Biochemistry Seminar II B

Students prepare oral presentations based on an assessment of current biochemical research papers. The course will help students to further develop critical reading and scientific communication skills. Faculty from both departments participate in the seminar.

Prerequisite: Senior standing in the program.

1 hour credit

BIOLOGY

(see also Medical Technology, Recombinant Gene Technology and Pre-Medicine)

Office: 203 Jewett Hall

(716) 673-3282

E-mail: Biology@fredonia.edu**Roger A. Byrne, Chairperson**

The Department of Biology offers a strong and flexible program designed to meet the career goals of students with widely varied interests. Graduates of our programs are well prepared to enter graduate school or professional programs (such as medical, dental, veterinary, physician's assistant etc.), become research technicians, clinical medical technologists, secondary school teachers, or enter direct employment. To meet these varied interests, the department offers a wide variety of courses ranging from the molecular or physiological aspects of biology to ecology, field and environmental biology. Students interested in pre-medicine, pre-veterinary and pre-dental programs are strongly urged to register with the Biomedical Professions Council for individual advising about specific types of professional schools (see pages 123, 147).

The biology department offers Bachelor of Science degrees in Biology, Recombinant Gene Technology (see page 127), Medical Technology (see page 94) and Biology-Secondary Education (see page 48), as well as a Master of Science degree program to students who have already obtained a B.S. in Biology. The department also participates in the Cooperative Agriculture (see page 6), Engineering (see page 53), and the Environmental Sciences (see page 61) programs.

Students who wish to teach biology may obtain provisional certification by completing the Biology program and the required courses in Professional Education (page 48). New York State mandates that Secondary Education majors demonstrate competence in a foreign language. This requirement may be satisfied in any one of the following four ways: (1) completion of three years of high school language with a passing Regents score (passing = 65), or, (2) completion of course work at the 116 level at Fredonia, or, (3) transfer two successful college semesters, or, (4) scoring at the 50th percentile or higher on the CLEP exam.

The Department of Biology is particularly proud of its undergraduate research opportunities. Undergraduate students work closely with faculty members on original research projects (for example, see BI 440). Students annually present their research results at meetings of the Eastern Colleges Science Conference, the regional meeting of Tri-Beta, a biology honors society, as well as other regional and national meetings. Students have been co-authors of papers published in scientific journals. A wide range of research projects are available in molecular or cellular biology, biochemistry, physiology, behavior and ecology.

Summer Research Fellowships are sponsored in biology each summer. Each sophomore or junior awarded

one of these prestigious fellowships will work on a specific project designed in collaboration with a faculty sponsor. These fellowships have been previously supported by the Constantine Barker Memorial Endowment, the Biology Endowment, the American Society for Microbiology, the Holmberg foundation, and Pfizer Pharmaceuticals. Each award provides a generous stipend (approximately \$2,500), a supplies budget (\$500-1,000) and complementary residence hall accommodations for the summer. For more information, interested students should contact a faculty sponsor in the department.

Many students also enjoy the activities of the student-run Biology Club which invites all biology students to join them. The club organizes many activities including faculty seminars on graduate school applications, careers in the Biological Sciences, participating in undergraduate research, as well as social activities.

Three members of the biology department faculty are among the Fredonia faculty that are honored recipients of the Chancellor's Award for Excellence in Teaching. Three of our faculty have been named Distinguished Teaching Professors and one faculty member has received the President's Award for Excellence in Teaching.

Requirements for the Bachelor of Science Degree in Biology

Core Program:

BI 141-142	Plant Diversity and Ecosystem Biology & Lab	4
BI 144-145	Animal Biology and Evolution & Lab	4
BI 241-242	Introductory Cell Biology & Lab	4
BI 330-331	General Ecology & Lab	4
BI 333-334	Biochemistry & Lab	4
BI 335	Genetics	3
BI 340	Cell and Subcellular Biology	3
BI 431	Senior Seminar	1
<i>Plus 9 additional hours of biology electives at the 300 to 400 level</i>		9
		36

CH 115-116	General Chemistry I and II & CH 125-126 (Labs)	8
CH 215-216	Organic Chemistry I and II & CH 225-226 (Labs)	8
MA 120	Survey of Calculus I or	3
MA 122	University Calculus I	4
PH 121-122	College Physics I and II & PH 123-124 (Labs) or	8
PH 230-231	University Physics I and II & PH 232-233 (Labs)	

27 or 28

Bachelor of Science Degree in Medical Technology

For information on this program, see page 94.

Bachelor of Science Degree in Recombinant Gene Technology

For information on this program, see page 127.

Chemistry and mathematics courses should be completed by the end of the sophomore year, physics courses by the end of the junior year.

Requirements for the Minor in Biology

21 or 22 credit hours of biology including BI 141, 144, 241 and BI 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 credit hours of chemistry, students electing BI 333 will be expected to have completed 16 credit hours of prerequisite chemistry courses.

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

Requirements for Transfer Credit: The degrees offered by the biology department require students complete between 32 and 41 credit hours of biology core and elective courses (Biology and Secondary Education, 36 credits; Medical Technology, 32 credits; Recombinant Gene Technology, 41 credits) chosen under the careful process of advisement. Students are

expected to complete at least half of the biology courses at Fredonia. Additional credit hours transferred may be used as general electives toward graduation. Students wishing to minor in Biology must complete at least 9 credits of biology courses at Fredonia. As a rule the department will not accept as equivalent for upper level courses credit earned at two year colleges.

In the list of courses below, 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

BI 105. Freshman Seminar on Sexual Concerns **B**

Introductory course is intended exclusively for freshmen of all majors. The course will include an overview of basic biological concepts related to human sexuality. Major topics of presentation will include information about the male and female reproductive systems, microbiology, immunology, pregnancy, sexually transmitted diseases, and a variety of approaches to protect against disease and unwanted pregnancy.

1 hour credit

BI 110. Human Biology **B**

Overview of biological aspects of human nature. Survey of basic human physiology; reproduction, and 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 111. Introduction to Biology **A**

Introductory course for non-science majors only. Intended to develop an understanding of the operation of biological systems and an acquaintance with basic biological concepts and principles.

3 hours 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 people make decisions to utilize the environment as a resource from the viewpoint of the social sciences. Attempts to link natural and social sci-

ences for awareness of multifaceted nature of environmental problems.

3 hours credit

BI 120. Microorganisms and Biotechnology **B**

An introductory study of the structure, metabolism, and genetics of microorganisms. Discussion will focus on the methods used to manipulate and transform biological processes and the role that microorganisms play in the rapidly expanding field of biotechnology.

3 hours credit

BI 141. Plant Diversity and Ecosystem Biology **B**

A survey of the plants, fungi and algae, with emphasis on the comparative form and function among major plant groups. Significant discussion of Angiosperms and a survey of ecological processes and relationships.

Corequisite: BI 142.

3 hours credit

BI 142. Plant and Ecosystem Biology Laboratory **B**

Laboratory exercises designed to explore the structure and function of the plants, fungi, and algae and demonstrate ecological principles.

Corequisite: BI 141.

1 hour credit

BI 144. Animal Biology and Evolution **B**

An evolutionary survey of the animal kingdom emphasizing adaptive aspects of comparative zoological forms and functions. Population genetics and evolutionary theory are considered in detail.

Prerequisites: BI 141, CH 115.

Corequisite: BI 145.

3 hours credit

BI 145. Animal Biology and Evolution Laboratory **B**

A survey of animal types from Protozoa to Chordata with emphasis on the evolution of animal structure and function.

Corequisite: BI 144.

1 hour credit

BI 241. Introductory Cell Biology **B**

Introduction to central concepts of cell biology. Includes biologically important macromolecules, basic metabolic processes, cell structure/function, and cell cycle.

Prerequisites: BI 144/145 and CH 115.

Corequisite: BI 242.

3 hours credit

BI 242. Introductory Cell Biology Laboratory **B**

A laboratory course emphasizing the methods and techniques used in cellular and molecular biology. Laboratory exercises focus on cell processes and stresses quantitative and computer skills.

Corequisite: BI 241.

1 hour credit

BI 221. 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 250-251. Basic Concepts in Biology **B**

Examination of selected areas of general biology for interested lower division major or non-major. Emphasis on developing basic background in such areas as botany, zoology, and the relationships between these fields and human society. Examples of courses offered include Field Natural History and Fungal pathogens. Course may not be used as Biology major elective. Topics are determined by student interests.

Prerequisite: BI 111 or 141.

1-3 hours credit each semester

BI 330. General 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 141, 144, 241; CH 115-125.

Corequisite: BI 331.

3 hours credit

BI 331. General Ecology Laboratory **B**

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**

Examination of the structure and function of biological macromolecules: proteins, nucleic acids, carbohydrates, and lipids. Interactions of these molecules in regulating intermediary metabolism and the flow of genetic information within the cell are also investigated.

Prerequisites: BI 241; CH 216, 226.

Corequisite: BI 334.

3 hours credit

BI 334. Biochemistry Laboratory **B**

Introduction to laboratory practice using biochemical techniques to isolate and charac-

terize proteins, nucleic acids, and lipids, and to analyze enzyme kinetics.

Corequisite: BI 333.

1 hour credit

BI 335. Genetics B

The principles of genetic analysis and the nature of the gene. Mendelian and molecular genetics; emphasis on the expression of heritable characteristics. Discussion of the chromosomal and molecular basis of inheritance and replication and mutation of hereditary material. Laboratory exercises deal with isolation and analysis of DNA from bacterial strains and environmental isolates. Two lectures, one laboratory.

Prerequisite: BI 241.

3 hours credit

BI 336. Mammalian Physiology B

An integrative approach to systems physiology. After an initial discussion on mechanisms of cellular regulation of homeostasis, individual physiological systems, e.g. respiratory, cardiovascular, are examined. Organ and system action are related to demonstrate integration of function within the body. Major emphasis will be on normal human functions.

Prerequisites: BI 241, CH 215.

Corequisite: BI 337.

3 hours credit

BI 337. Mammalian Physiology B Laboratory

A laboratory course designed to complement BI 336 Mammalian Physiology. Laboratory exercises examine, through experimentation, the integrative functions of organs and systems within the body. Labs include excitable cell physiology, cardiovascular, excretory and exercise physiology. Wherever possible, human models are utilized. One laboratory.

Corequisite: BI 336.

1 hour 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, 335.

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 343. Conservation B

Study of relationships of people 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. *Note:* Students in any Biology degree program may earn elective credit for only one of BI 343, 345 or 360.

Prerequisites: BI 111, 141 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.

Prerequisite: BI 144.

1 hour credit

BI 345. Emerging Infectious Diseases A

This course will examine infectious diseases whose incidence in humans has increased within the past two decades. The course will focus on the etiological agents, infectious disease process, epidemiology, and the factors associated with the emergence and reemergence of these infectious diseases. *Note:* Students in any Biology degree program may earn elective credit for only one of BI 343, 345, or 360.

3 hours credit

BI 351. Evolution B

Consideration of the theoretical framework of evolutionary biology and the mechanisms of evolution. Special topics include microevolution, macroevolution, and coevolution.

Prerequisites: BI 141, 144 and 241.

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 includes information about human physiology, immune defense mechanisms, and microbiology. Detailed biological discussions focus on the transmission of AIDS and STDs, disease symptoms, treatment, and prevention, as well as information on the historical accounts, global and regional impact, ethical, legal and public policy considerations, economic impact of AIDS and STDs, and the psychosocial impact on

the individual, family and community. *Note:* Students in any Biology degree program may earn elective credit for only one of BI 343, 345 or 360.

Prerequisites: BI 111 or 141. Junior standing

3 hours credit

BI 370. Advanced Biochemistry B

A continuation of BI 333, this course explores biochemical concepts and pathways with an emphasis on problem solving. Cellular control and coordination of biochemical pathways is emphasized in light of an advanced understanding of protein biochemistry. Lecture only.

Prerequisite: BI 333.

3 hours credit

BI 397. Biochemistry Seminar I B

Current biochemical research papers are analyzed in a "journal club" (open discussion) format. This course will help students to develop critical reading skills and underscore how an array of biochemical techniques are applied to address a research problem. Faculty from both biology and chemistry participate in this seminar.

Prerequisite: Junior standing in the program.

1 hour credit

BI 410. Tropical Biology C

A lecture and field course on the natural history and ecology of the neotropics. Students examine several terrestrial and marine tropical ecosystems, including lowland rain forests, elfin forests, mangrove communities, and coral reefs. Each student completes a field project and journal. One lecture per week during the semester followed by a two week field experience in Costa Rica during winter break. Students are responsible for travel expenses.

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 permission 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.
Prerequisite: BI 330.
3 hours credit
- BI 422. Physiological Ecology** **C**
Reading and discussion of primary literature relating to animal interactions with the environment. Examination of potential effects of specific habitats (e.g. deserts, deep sea) and the physiological responses of various animals to these environmental challenges.
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 429. Field Biology** **D**
A field-oriented course with emphasis on developing and testing scientific hypotheses. Activities include identification of local flora and fauna, using a wide variety of field techniques, statistical analysis, and writing scientific reports. Some Saturday field trips required.
Prerequisite: BI 330.
3 hours credit
- BI 431. 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.
Prerequisite: senior standing.
1 hour 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 and immunohisto-chemistry. Two lectures, one laboratory.
Prerequisite: senior standing.
3 hours credit
- BI 440-441. Undergraduate Research** **A**
Independent study and research of mutual interest with faculty member in such areas as morphology, physiology, evolution, development, population dynamics, genetics, biochemistry, cell and subcellular biology, microbiology, ecology, behavior and conservation. Course may be repeated; maximum of 12 credits count toward the B.S. degree, only 3 of which may be included in a Biology major. *Note:* Students may earn Biology elective credit for only one of BI 440/1 or 458.
Prerequisite: permission of faculty member and at least junior status in the major.
1-3 hours credit
- 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.
Prerequisites: BI 241, 333 or permission of instructor.
3 hours credit
- BI 445. Photobiology** **C**
An examination of the interactions of organisms and light. Topics include photochemistry and light measurement techniques, photosynthesis, vision, phototropic and phototactic responses and the role of light in reproduction of both plants and animals.
3 hours credit
- BI 446. Animal Behavior** **B**
Survey on 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 241.
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, Hormone Mechanisms, Molecular Genetics, Cell/Hybridoma Culture, Eukaryotic Gene Expression and Biology of the Terrestrial Vertebrates.
Prerequisite: at least junior status in major or permission of instructor.
1-3 hours credit
- 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 457. Biostatistics** **C**
A review of statistical tests frequently used in the biological sciences. Emphasis is placed on understanding experimental design and what statistics can and cannot do. Uses of computer statistical packages 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 teaching of the biology department's laboratories under the guidance of a faculty member. Student experiences may include; preparing materials for the lab, and demonstrating procedures and techniques to students. *Note:* Students may earn Biology elective credit for only one of BI 440/1 or 458.
Prerequisite: permission of the instructor.
1 hour credit
- BI 460. Recombinant Gene Technology** **B**
Basic molecular biology techniques are presented which allow students to clone, characterize and sequence a gene from a cDNA library. Laboratory techniques include library construction, DNA restriction, gel electrophoresis, Southern blotting, DNA sequencing, and computer-assisted sequence analysis. One lecture, two laboratories.
Prerequisites: BI 333, 334, 335.
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. Several laboratory exercises included involving serological/immunological determinations detecting antigen-antibody interactions. Three lectures.
Prerequisites: BI 333, 335.
3 hours credit
- BI 497. Biochemistry Seminar II** **B**
Students prepare oral presentations based on an assessment of current biochemical research papers. The course will help students

to further develop critical reading and scientific communication skills. Faculty from both biology and chemistry participate in the seminar.

Prerequisite: Senior standing in the program.

1 hour credit

BUSINESS ADMINISTRATION

Office: W301 Thompson Hall
(716) 673-3505

E-mail: Business@fredonia.edu

Thomas Rywick, *Chairperson*

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. 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. International applications are integrated throughout the curriculum.

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 acquired through their course work have opened doors to major universities.

The department offers two separate degrees, a B.S. in Accounting (see page 3), which qualifies graduates to take the Certified Public Accounting (CPA) examination and/or the Certified Management Accountant examination; and a B.S. in Business Administration with specializations in Finance, Management, Marketing, Management Information Systems, and Individualized Specializations. The department also participates in the Cooperative Agriculture and Cooperative Engineering programs (see pages 6, 53).

Students are urged to declare a major in Business Administration as early as possible in their college careers. Students who wish to declare his major after they have earned 90 credit hours will need the permission of the department chairperson and the Dean of Natural and Social Sciences and Professional Studies.

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: AL Tech Specialty Steel Corp., Fieldbrook Farms Ice Cream, Inc., National Fuel, Red Wing Co. Ltd., and Marine Midland Bank.

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 Financial Management Association. 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, as well as the Students In Free Enterprise (SIFE) program.

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

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 plus 2 agreement with the State University at Buffalo which requires three years of study at Fredonia and two years at Buffalo to finish the program. A similar 3 plus 2 agreement exists with Binghamton University. The department also has 4 plus 1 arrangements with Clarkson University, Rochester Institute of Technology, and the University of Pittsburgh. 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 Bachelor of Science Degree in Business Administration

1. Students who plan to major in Business Administration must complete a minimum of 45 semester hours of core requirements as indicated below:

BA 164	Introduction to M.I.S.	3
MA 120	Survey of Calculus I or	3
MA 122	University Calculus I and	4
BA/ EC 200	Fund. of Stats. for Business and Econ.	3
AC 201	Financial Accounting	3
AC 202	Managerial Accounting	3
EC 201	Principles of Macroeconomics	3
EC 202	Principles of Microeconomics	3
BA 300	Statistical Analysis	3
BA 310	Legal Environ. of Business	3
BA 315	Principles of Business Finance	3
BA 321	Management and Org. Behavior	3
BA 325	Principles of Marketing	3
BA 327	Production and Operations Management I	3
BA 364	Management Information Sys- tems I	3
BA 423	Strategic Management	3

2. Students majoring in Business Administration must complete a minimum of 15 credit hours within a selected specialization as indicated below:

A. Finance

EC 315	Money, Banking, and Monetary Economics	3
BA 317	Corporate Finance I	3
BA 416	Investment Analysis	3

AC 304	Taxation of Individuals or	3
AC 305	Taxation of Corporations and Partnerships	3
<i>Plus one</i> of the following:		
BA 418	Corporate Finance II	3
BA 480	Internship	3
AC 303	Cost Management	3
EC 350	Managerial Economics	3

B. Management

BA 317	Corporate Finance I	3
BA 330	Human Resource Management	3
BA 427	Production and Operations Management II	3
EC 350	Managerial Economics	3
<i>Plus one</i> of the following:		
AC 303	Cost Management	3
BA 440	Advanced Human Resource Management	3
BA 480	Internship	3

C. Management Information Systems

CS 105	Visual BASIC Programming	3
CS 120	Computer Science Overview	4
BA 464	Management Information Systems II	3
BA 465	Management Information Systems III	3
<i>Plus one</i> of the following:		
BA 427	Production and Operations Management II	3
BA 480	Internship	3
AC 303	Cost Management	3

D. Marketing

BA 340	Marketing Research	3
BA 342	Consumer Behavior	3
BA 445	Integrated Marketing Communications	3
BA 446	Sales Management	3
<i>Plus one</i> of the following:		
AC 303	Cost Management	3
BA 427	Production and Operations Management II	3
BA 411	Marketing Management	3
BA 480	Internship	3

E. 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 five 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, Human Resource 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 SUNY Fredonia.

Requirements for the Minor in Business Administration

The Department of Business Administration offers a minor in business which requires 18 credit hours from business and accounting. Included within the 18 hours must be three upper level courses within a specialization plus the necessary prerequisites. An example would be: BA 342, BA 445, and BA 446 plus core courses BA 300, BA 310 and BA 325. The approval of the entire minor program would require the advisement of the chairperson.

In the list of courses below, 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

BA 101. Understanding Business D

An introduction to the art and science of mobilizing, in pursuit of profit, scarce resources in order to satisfy customers' demand for quality products and services. Topics such as evolution of American business enterprises, social responsibility production management, human resource management, marketing, accounting, and international business will be introduced. This course is designed primarily for non-majors, although open to Business Administration freshmen/sophomore students.

3 hours credit

BA 164. Introduction to Management Information Systems A

An essential business course emphasizing the use of information technology to solve business problems, manage global organizations and create competitive advantage. The course also includes computer lab instruction in the use of operating system and business application software (Microsoft

Windows and Office). No previous computer experience is necessary.

3 hours credit

BA/EC 200. Fundamentals of Statistics for Business and Economics 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.

Prerequisites: MA 108 or 120 or 122.

3 hours credit

BA 235. Introduction to Business Communication B

This highly practical course focuses on the critical communication skills involved in effective written and oral communication while emphasizing applications of communication concepts in the world of business. Students will be able to engage in application exercises, build their exploratory skills, and confront problems of diversity.

Prerequisite: EN 100.

3 hours credit

BA 300/EC 300. Statistical Analysis B

A study of the techniques and tools used in analyzing business and economic data with equal emphasis on interpretation of results while concentrating on estimation techniques. Simple and multiple linear regression, non-parametric tests, analysis of variance, time series, and surveying are discussed, although topics will vary depending upon students' needs. Use of SPSS/SAS computer software packages.

Prerequisite: EC 200 or equivalent.

3 hours credit

BA 310. Legal Environment of Business B

A one semester survey course of legal issues affecting individuals and businesses. Topics covered include dispute resolution, contract law, torts, agency law, and laws governing the creation, operation, and termination of business organizations. Various public law topics will be examined, as well as principles of international law, and theoretical considerations.

Prerequisites: GCP 1a and 1b.

3 hours credit

BA 315. Principles of Business Finance A

An examination of the conceptual and institutional framework within which the financial manager operates. Topics cover management and valuation of assets, including management of funds and working capital, financial planning and capital budgeting in a national and global environment.

Prerequisites: AC 201; EC 200; EC 201; EC 202.

3 hours credit

BA 317. Corporate Finance I B

An examination of problems related to the investment, acquisition, and distribution of financial resources. Stress is placed upon integrating these areas into one system to facilitate and evaluate the operation of the finance function. Topics include cash flows, risk analysis, capital budgeting and structure, and international financial management.

Prerequisite: BA 315.

3 hours credit

BA 319. Health Care Finance C

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.

Prerequisite: BA 315.

3 hours credit

BA 321. Management and Organizational Behavior B

An in-depth study of the theories and processes of management focusing on organizational behavior, hierarchical versus network organizational structure, and organizational culture. Issues within the organization such as motivation and leadership, diversity and group dynamics, and external environmental influences including technology, ethics, diversity and global considerations, are examined.

Prerequisite: junior standing or permission of the instructor.

3 hours credit

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 both domestically and internationally. Students will learn to employ state-of-the-art information to plan, price, distribute, advertise, and promote products and services in the 21st century global economy as symbolic analysts and knowledge workers. The course will focus on

how skilled marketers apply their knowledge and creative ideas to insure competitive success and market position and to fuel the high-tech information society.

Prerequisites: EC 201, 202.

3 hours credit

BA 327. Production and Operations Management I A

A fundamental course in the concepts of production and operations management (P/OM), and the use of quantitative methods and computer applications related to effective control of products and operative systems. Topics include P/OM strategy and international competition issues, decision-making tools, linear programming, waiting line models, process strategies, work measurement techniques, and purchasing management and "Just-In-Time" strategies.

Prerequisites: EC 200; MA 120; and corequisite BA 321.

3 hours credit

BA 330. Human Resource Management C

A study of the Human Resource function. Topics covered include recruitment, selection, hiring, performance evaluation, compensation, motivation, training and development, legal environment such as OSHA, EEOC and sexual harassment issues, and industrial relations. Emphasis on how managers can deal with and use the Human Resources function.

Prerequisite: BA 321, pre- or co-requisite.

3 hours credit

BA 340. Marketing Research D

A specialized marketing course that examines modern methodologies needed to effectively use new information technologies to meet the world's growing demand for competitively priced quality products and services. The nature and scope of computer-aided marketing research, research design and data collection methods, including sampling and focus groups, are reviewed. Individual and group field projects will be reported in oral and written presentations.

Prerequisites: BA 164, BA 300, BA 325.

3 hours credit

BA 342. Consumer Behavior B

An integrative marketing course that examines individual psychological and social environments in which consumers attempt to satisfy felt needs and wants. Both marketing and personal perspectives are explored in class resulting in greater student appreciation and understanding of the complexity of human behavior in the new high-tech cross-cultural setting around the world.

Prerequisite: BA 325.

3 hours credit

BA 364. Management Information Systems I**A**

The crucial study of how information technology provides solutions to organizational problems and challenges, and helps provide competitive advantage in a global marketplace. This course also includes lab instruction in Microsoft Excel and Access from the end user's perspective. Recitation topics cover the foundation of information systems and the paradigms and research in M.I.S., as well as an introduction to systems design and development.

Prerequisite: BA 164 or permission of instructor.

3 hours credit

BA 376. Business and Culture**B**

A survey of various aspects of culture and their impact on doing business in the international arena. Topics include verbal and non-verbal communication, negotiation, foreign exchange, and country-specific research. Emphasis on cultural awareness and understanding in business.

Prerequisites: must have completed at least 27 hours in Part I and II of the GCP.

3 hours credit

BA 411. Marketing Management**D**

A challenging course employing the Harvard Case Method in which students will develop an ability to make critical marketing decisions, support those decisions with appropriate analysis, and communicate ideas both orally and in writing. The goal of the course is to help develop students' critical reasoning powers using real-life examples of marketing problems encountered by both domestic and multi-national companies and comparing student recommendations with actual results.

Prerequisite: BA 325.

3 hours credit

BA 416. 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 418. Corporate Finance II**D**

A continuation of the study of problems related to the management of financial resources. 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 prior courses are introduced.

Prerequisite: BA 317.

3 hours credit

BA 423. Strategic Management**A**

A capstone course emphasizing top multinational management issues through utilization of knowledge and skills developed in previous courses. Problem analysis and decision-making in case studies and group projects simulate the process of strategy formulation in the firm.

Prerequisites: senior standing; BA 315, 321, 325.

3 hours credit

BA 427. Production and Operations Management II**B**

Continuation of BA 327 with emphasis on the nature of the production, operations, and material functions and their inter-relationship with quality. Discussions, problems, computer applications, and case studies of qualitative and quantitative methods of analysis currently available (e.g., material requirement planning, MRP I) to manage production operations functions. In-depth coverage of management science/operations research models to optimize resource utilization and management control in a production environment; capacity planning, reliability sampling, PERT/CPM scheduling and project management systems, transportation and location strategies, aggregate planning tactics, inventory management and "Just-In-Time" tactics, and materials resource planning (MRP II).

Prerequisite: BA 327.

3 hours credit

BA 440. Advanced Human Resource Management**D**

The application of Human Resource Management concepts to specific business problems through case analysis relating to the Human Resource Management topics covered in BA 330.

Prerequisite: BA 330.

3 hours credit

BA 445. Integrated Marketing Communications (IMC)**B**

This advanced marketing course analyzes the components of integrated marketing communications which includes all communication functions, both internal and external, of an organization employing new information technologies. Class discussions will explore determining domestic and international consumer needs and wants, creating advertising and promotional messages, media strategy, and message strategy. Students will gain practical experience in developing a comprehensive marketing plan.

Prerequisite: BA 325.

3 hours credit

BA 446. Sales Management**B**

This advanced marketing course of study includes how modern sales managers employ state-of-the-art technology to identify, process, and solve sales management problems. Class assignments and discussions reveal contradictory perspectives to complex marketing problems. The course will also cover sales force structure in new lean-management organizations, determining needed characteristics and recruiting of new sales representatives, and processing, hiring, training, and ethically managing a multinational sales force in the 21st century. Individual and group presentations, both written and oral, will be required.

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 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

BA 464. Management Information Systems II**B**

This course continues the study of business systems design and development in more depth. In particular, the course will introduce the skills needed to understand and use Visual Basic for Applications. VBA allows the development of professional and intelligent interfaces for Access database applications. The course will also introduce and give the students an opportunity to create an Expert System.

Prerequisite: BA 364 or permission of the instructor, and some programming.

3 hours credit

BA 465. Management Information Systems III**B**

An extension of Visual BASIC programming concepts presented in M.I.S. II. Introduces students to logical design specifications and program development. Topics include continued coverage of systems analysis and design, systems development and database design. Students will create custom database applications using Visual FoxPro within the Microsoft Office development environment.

Prerequisite: BA 464 or permission of the instructor.

3 credit hours

BA 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.

Prerequisite: junior standing.

1-6 hours credit

CHEMISTRY

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Thomas S. Janik, *Chairperson*

The goals of the chemistry department are to prepare its majors for advanced study in chemistry, chemical engineering, related disciplines or professional programs; or careers in industrial, environmental, and governmental laboratories; or for careers in teaching. The department strongly believes in the value of rigorous course work combined with practical experience. Thus, students spend much of their time in the department participating in undergraduate research; this has led to an informal atmosphere with considerable student-faculty interaction. Often the results of such research are presented at conferences or published in chemistry journals. Paid internships with local industries are also available.

The Chemistry Club is very active and includes in its activities an outreach program to local schools. Departmental honors and awards include the Moos, Keller and Dingledy.

The department offers three 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. Track III has its emphasis in environmental chemistry. Each track requires the completion of a Core Program plus additional course work. The departments of Chemistry and Biology jointly administer a major in Biochemistry, see page 13. The department maintains a graduate program leading to a M.S. degree. A five-year program is available to out-

standing students which is a combined B.S./M.S. program.

Grading Standards: A minimum C-grade is necessary for all re-quired 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: Laboratory and lecture courses are separately enrolled and graded. As a result, there are 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 6 and 53 respectively.

For the B.S. degree in Geochemistry, an interdisciplinary program with the geosciences department: The course requirements for this curriculum are given on page 68.

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 48. Students in all education programs are required to demonstrate competence in a foreign language. This requirement may be satisfied in any one of the following four ways: (1) completion of course work at the 116 level at Fredonia, or (2) transferring of two successful college semesters, or (3) scoring at the

50th percentile or higher on the CLEP exam, or (4) completion of three years of high school language with a passing Regents score passing = 65 percent).

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 of Natural and Social Sciences and Professional Studies, and the Vice President for Academic Affairs. Such revisions would be in effect for students who had completed less than 60 credit hours at the time of the revision.

Requirements for the Bachelor of Science Degree in Chemistry

Core Program (36 credit hours in chemistry; 15 credit 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 395	Introduction to Research	1
CH 315-316	Physical Chemistry I & II	6
CH 325-326	Physical Chemistry I & II Labs	2
CH 317-318	Analytical Chemistry I & II	6
CH 327	Analytical Chemistry I Lab	1
CH 328	Analytical Chemistry II Lab	2
CH 495-496	Seminar	<u>2</u>
		36
PH 230-232	University Physics I & Lab	4
MA 122-123	University Calculus and II	8
CS 104	Introduction to Microcomputer Software or	
CS 105	Visual BASIC Programming or	3
CS 106	FORTRAN Programming	

**Additional requirements - Track I
(Standard Major)**

Independent Laboratory Research (CH 391, 392, 491, 492) or Advanced Lecture Elective	3
Advanced Lecture Elective (400 level)	3
PH 231-233 University Physics II & Lab	4

**Additional Requirements - Track II
(A.C.S. Approved Major)**

CH 462-472 Inorganic Chemistry & Lab	4
Independent Laboratory Research (CH 391, 392, 491, 492) or Advanced Lecture Elective	3
Advanced Lecture Elective (400 level)	3
PH 231-233 University Physics II & Lab	4
Mathematics Elective - any mathematics course having MA 122 or 123 as a prerequisite	3 or 4

**Additional Requirements - Track III
(Environmental Emphasis)**

CH 371-372 Internship	3
CH 473 Environmental Chemistry	3

Area requirement - 6 credit hours in one of three areas: biology, geosciences, or social sciences. Approved sequences are: biology: BI 131-132, BI 330, and BI 333 or 343; geosciences: GS 165, 440, and GS 450; social sciences: any three courses from among EC 201, EC 202, EC 380, PL 116, PS 276 and PS 277.

**Requirements for the Minor in
Chemistry**

A minimum of 24 credit hours in chemistry is required including CH 115-116, 125 and 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.

In the list of courses below, 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

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 in 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 B
 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 A
 Lecture I and II**
 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.
Prerequisites: CH 114 or Regents high school chemistry; MA 105 or equivalent.
 3 hours credit each semester

**CH 125-126. General Chemistry A
 Laboratory I and II**
 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 com-

pounds. 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 B
 Chemistry Laboratory**
 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 A
 Lecture I and II**
 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 B
 Laboratory I and II**
 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 B
 Laboratory**
 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 300. The Nature of Science B
 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, pollu-

tion, 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 A in Chemistry

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 315-316. Physical Chemistry B I and II Lecture

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 B Lecture

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 B Lecture

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 B I and II Laboratory

Laboratory experiments designed to accompany CH 315-316. One laboratory period per week.

1 hour credit each semester

CH 327. Analytical Chemistry I B Laboratory

Laboratory experiments designed to accompany CH 317.

1 hour credit

CH 328. Analytical Chemistry II B Laboratory

Laboratory experiments designed to accompany CH 318.

2 hours credit

CH 370. Advanced Biochemistry B

A continuation of BI 333, the course explores biochemical concepts and pathways with an emphasis on problem solving. Cellular control and coordination of biochemical pathways is emphasized in light of an advanced understanding of protein biochemistry. Lecture only.

Prerequisite: BI 333.

3 hours credit

CH 371-372. Internship in Chemistry A

Approved practical experience in industrial, environmental, commercial, forensic, or other laboratories. Internships may accompany paid working time arrangements.

Prerequisite: permission of chairperson.

1-3 hours credit per semester

CH 391-392. Independent A Laboratory Research

For students having junior standing. See CH 491-492 for list of study and research areas. Prerequisites depend upon areas of study and research.

1-3 hours credit each semester

CH 395. 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. Prerequisite to CH 491, 492.

1 hour credit

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.

1-3 hours credit

CH 405. Industrial Chemistry C

Application of chemical principles to chemical and environmental processes. Topics include mass and energy balances over complex systems, reaction kinetics and thermodynamics, combustion, behavior of real gases, and waste minimization. Directed toward students with career interests in industry and/or chemical or environmental engineering.

Prerequisite: CH 315 or permission of instructor.

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 412. Advanced Organic Chemistry C

The discussion 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 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. Acid-base 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 465. Advanced Experimental Biochemistry B

State-of-the-art biochemical and molecular techniques are taught within these hands-on, laboratory-based mini-courses. Potential topics include the polymerase chain reaction (PCR), oligonucleotide synthesis, DNA/protein sequencing and analysis (BLAST, DNASIS), pulse-field gel electrophoresis, gas chromatography-mass spectroscopy (GC-MS), nuclear magnetic resonance (NMR) spectroscopy, high performance liquid chromatography (HPLC), immunochemistry, and/or other contemporary techniques. Bio-

chemistry majors must complete a minimum of 2 credits of this course.

Prerequisite: BI 334.

1 hour credit each

**CH 472. Inorganic Chemistry B
Laboratory**

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. Environmental C
Chemistry**

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.

Prerequisite: CH 315 or 317.

3 hours credit

**CH 481. Special Topics in A
Chemistry**

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 A
Laboratory Research**

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 395.

1-3 hours credit each semester

**CH 495-496. Seminar: Recent A
Advances in Chemistry**

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

(716) 673-3410

E-mail: Comm@fredonia.edu

Bill Jungels, Chairperson

Communication relates to how individuals, groups, organizations, societies, and cultures may establish humane and productive relationships in expressing needs, mediating problems, and pursuing goals. It is one of the oldest areas of academic study and, because of the transformation of personal and social life by the growth of media technologies, a central discipline. Students approach processes, practices and distortions involved in human communication from a critical perspective, and integrate application and theory throughout the curriculum.

The Department of Communication offers major specializations in Audio/Radio Production, Human Communication, Media Management, and Video Design and Production. A sequence of courses in Public Communication/Public Relations will be developed during 1999 and 2000.

The department also offers a minor in Communication.

Graduates of the program have successful careers in corporate and public settings, and working in media at all levels, both independently and in the employment of established producers. Communication students have also continued their education in graduate programs and law schools around the country.

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 Sheldon Multimedia Computer Lab, 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 (ACA, providing communication services to the community) and off-campus university internships.

The department offers several awards and scholarships for entering freshmen, continuing students and graduating seniors, including the Louis C. and S. David Adler Scholarship, the Anne Bernstein Memorial Award, the Edward S. Edelman Scholarship, the Arthur R. Maytum Scholarship, and the Arlie Muller Parks Scholarship.

Requirements for the Bachelor of Science 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 to 40 credit hours of study including 13 credits of core courses required by every student in the department and 24 to 27 credits of courses in the individual specialization. A minimum of 18 credits of the major, including 12 credits within the specialization, must be taken at Fredonia. 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 credit 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 13

Plus
SPECIALIZATION: 25 credit hours - at least 12 at Fredonia

Group A - Specialization Core - 16 credit hours		
CM 251	Audio Production	3
CM 351	Intermediate Radio Production	3
CM 353	Communication Law and Ethics	3
and one of the following:		
CM 200	Electronic Media Writing or	3
CM 361	Script Writing for Video, Film and Radio	3
and one of the following		
CM 395	Radio News	4
CM 451	Radio Documentaries	4
CM 456		

Radio Programming and Production
Group B - Specialization Electives - 9 credit hours

One course from each of the following three groups:

CM 105	Public Speaking	3
CM 221	Interpersonal Communication	3
SH 201	Voice, Articulation and Resonance	3
CM 240	Computers in Corporate Communication	3
CM 350	Telecommunication Technology	3
CM 385	International Broadcasting	3
CM 400	Broadcast Station Operations	3
MU 115	Music in Western Culture	3
MU 265	History of Jazz	3
MU 267	African-American Music	3
MU 333	Musics of the World	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 13

Plus
SPECIALIZATION: 24 credit hours - at least 12 at Fredonia

Group A - Specialization Core - 12 credit hours from:		
CM 105	Public Speaking	3
CM 221	Interpersonal Communication	3
CM 295	Communication Research and Survey Methods	3
CM 301	Group Communication	3

Group B - Specialization Electives - 12 credit hours - choose four from the following. *Note:* Group B courses must be taken after completing CM 101, 201 and Group A.

CM 240	Computers in Corporate Communication	3
CM 310	Language and Communication	3
CM 311	Nonverbal Communication	3
CM 379	Persuasion	3
CM 430	Communication Theory	3
CM 458	Special Topics	3
CM 460	Organizational Commun.	3
CM 465	Intercultural Commun.	3

C. Media Management Specialization: 37 credit hours (including core requirements)

For students interested in non-production areas of electronic media. Includes sales, management, regulation, promotion, and research in broadcast and other electronic media such as cable television and satellites.

Requirements: Hrs. Communication Core 13

Plus
SPECIALIZATION: 24 credit hours - at least 12 at Fredonia

Group A - Specialization Core - 15 credit hours - choose five from among the following:

CM 240	Computers in Corporate Communication	3
CM 295	Research and Survey Methods	3
CM 350	Telecommunication Technology	3
CM 353	Communication Law and Ethics	3
CM 375	Media Criticism or	3
EN 281	Film and TV Analysis	3
CM 385	International Broadcasting	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 235	Business Communication	3
CM 252	Communication: Yesterday and Today	3
CM 301	Group Communication	3
CM 379	Persuasion	3

CM 430	Communication Theory	3
CM 465	Intercultural Communication	3

D. Video Design and Production Specialization: 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	3
Plus	
SPECIALIZATION: 27 credit hours - at least 12 at Fredonia	

Group A - Specialization Core - 15 credit hours

CM 251	Audio Production I	3
CM 255	Television Production I	3
CM 353	Communication Law and Ethics	3
CM 354	Video Field Production and one of the following:	3
CM 200	Electronic Media Writing or	
CM 361	Script Writing for Video, Film and Radio	

Group B - 12 credit hours - one of the following three course sequences - *must be taken at Fredonia*

CM 366	Video Postproduction	4
CM 452	Video Documentaries I	4
CM 462	Video Documentaries II or	4
CM 366	Video Postproduction	4
CM 454	Video Drama I	4
CM 464	Video Drama II	4

Requirements for the Minor in Communication

A minor in Communication requires, including CM 101, a minimum of 18 hours of courses with 9 being at 300 level or above. A minimum of 9 hours must be taken at Fredonia. Advising with the department is strongly recommended.

In the list of courses below, to the right of each course name will be a letter in-

dicating 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

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) related media industries — advertising, public relations, news services; and (3) the influence and results of mass communication — studying mass media research. Consideration of the ethical standards for the media.

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 110. Desktop Presentation A

Five week mini-course dealing with skills and concepts involved in preparing desktop presentations. Students will be introduced to Macintosh desktop and network operations, presentation software including Powerpoint and Photoshop, and associated computer input and output devices.

1 hour credit

CM 112. Desktop Video A

Five week mini-course dealing with skills and concepts involved in preparing video for computer multimedia presentation. Digitizing, non-linear editing of video and sound, effects and transitions, incorporation of computer graphics, and computer animation.

1 hour credit

CM 114. Electronic Darkroom A

Five week mini-course covering the basics of computer imaging, retouching, and color painting. Emphasis is placed on learning the powerful features of Adobe Photoshop for manipulating images and ways to integrate image editing into multimedia applications.

1 hour credit

CM 116. Desktop Publishing A

Five week mini-course introducing the use of desktop computers to prepare and produce print and electronic publications such as newsletters, brochures, charts, magazines, and books. Material covered includes page design and layout, typography, integrating graphics and text software, pre-press, and professional publishing practices.

1 hour 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 Orientation 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 Writing 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 an 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 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. Uses the laboratory method for learning communication skills.
Prerequisite: CM 101.

3 hours credit

CM 235. Introduction to Business Communication **B**

See BA 235 for course description.

3 hours credit

CM 240. Computers in Corporate Communication **B**

Introduction to the role of modern microcomputers in personal, entertainment, and corporate communications. Topics range from differences in popular computer platforms to the use of specific types of hardware and software used in electronic communication. Addresses the use of computers in the creative environment including digital audio, video, multimedia production, the Internet, and the World Wide Web.

3 hours credit

CM 251. Audio Production I **A**

Introduction to audio production equipment and its operation. Focus on listening skills; sound design; developing an ability to understand and use sound effectively and the ethical use of persuasive techniques. Principles of writing for the ear examined and practiced; editing, announcing, and interviewing introduced.

Prerequisite/corequisite: CM 155.

3 hours credit

CM 252. Communication: Yesterday and Today **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. Final projects require students to 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 301. Group Communication **B**

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.

Prerequisite: CM 221.

3 hours credit

CM 310. Language and Communication **C**

Provides an understanding of the relationship between language and communication, or of the role language plays in communication. Language is viewed from the following three perspectives: (a) language is a system of symbols; (b) there is an interaction between language and thought; and (c) language embodies action.

Prerequisite: CM 221.

3 hours credit

CM 311. Nonverbal Communication **D**

An advanced course examining theoretical and functional perspectives on the various aspects of nonverbal in human communication. Stresses the contribution of nonverbal to meaning, and to the concurrent verbal transaction.

Prerequisite: CM 221.

3 hours credit

CM 320. WCVF/WNYF/ACA/AERho Management **A**

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 in 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 acquired in CM 251; more 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 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 366.

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.
Prerequisite: 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 theater production course.
3 hours credit
- CM 366. Video Postproduction** **A**
A balance between editing concepts such as continuity, pacing, dramatic focus, etc. and editing skills such as A/B SMPTE code, signal monitoring, and digitized non-linear techniques. Students will learn the rules and methods by which an editor constructs fiction or a representation of actual events. Weekly editing assignments. Lab required.
Prerequisite: CM 354.
4 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 is placed on applying critical perspectives to the criticism of print and electronic media, especially in film, radio and TV.
Prerequisites: CM 102, CM 155, CM 201.
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.
Prerequisites: CM 101, 105.
3 hours credit
- CM 385. International Media** **B**
An examination of the media in a global context. Attention is focused on public and private management, regulatory mandates, and programming and publishing philosophy in the global village. Topics will include cultural exchange and interaction between the media and consumers.
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 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 430. 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.
Prerequisites: CM 295, 301.
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 credit 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 351.
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.
Prerequisites: CM 155, CM 354.
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.
Prerequisites: CM 155, CM 354.
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.
Prerequisite: CM 351.
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.
1-3 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.
Prerequisite: 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. Application of procedures commonly used to evaluate and improve communication in organizations.
Prerequisite: CM 101.
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 366 and CM 452.

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 366 and CM 454.

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 221.

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. Requires a 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. A lab fee may be assessed if project is using department equipment.

Prerequisite: permission of communication faculty member.

3 hours credit

COMPUTER SCIENCE

Office: 223 Fenton Hall

H. Joseph Straight, *Chairperson*
(716) 673-3243

Khalid J. Siddiqui, *Coordinator*

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E-mail: CSIT@fredonia.edu

The Computer Science program, administered by the Department of Mathematics and Computer Science, offers five study options for majors: Theoretical Computer Science (TCS), Computer Information Systems (CIS), Computer Systems Software (CSS), Computing in General Sciences (CGS) and Computing with Mathematical Modeling (CMM). These options prepare students for the future by combining a study of the current state of computer science and an area of application embedded within a well-rounded liberal arts education. As a Computer Science major at Fredonia a student may select a program that suits his/her career objectives and academic goals.

The department participates in the SUNY Learning Network program. Several computer science courses may be taken on the Internet. For additional information, students should call 1-800-875-6269 or check the web site: www.sln.suny.edu/sln.

Scholarships available to students in Computer Science include the John Beck Scholarship and the Arthur R. Maytum Scholarships.

These scholarships are awarded annually on the recommendation of the computer science faculty.

Students who wish to declare a major in Computer Science must consult with the coordinator of the program.

Degree Programs in Computer Science

The Computer Science program offers a Bachelor of Science degree with five study options (tracks) for majors:

- Theoretical Computer Science (TCS)
- Computer Information Systems (CIS)
- Computer Systems Software (CSS)
- Computing in General Sciences (CGS)
- Computing with Mathematical Modeling (CMM)

All five options contain a common core of fundamental courses in the science of computing, with essential emphasis on theory and practice. Further, courses in Track 1 prepare graduates for post-graduate education in computer science and careers in the scientific sectors as well as for graduate study in the computing-oriented branches of the mathematical sciences. Track 2 is geared to commercial and computer information management and administrative applications. Track 3 prepares the graduates for system level programming, design and networking. Track 4 emphasizes computer applications and interdisciplinary opportunities in one of the areas of physical sciences, including biology, chemistry, physics, geosciences and mathematics. As the name suggests, Track 5 prepares the graduates for employment in the areas of discrete systems simulation and modeling.

Currently, the languages of computer science instruction are C and C++ in the Windows (95, 98 and NT) and IRIX environments.

The department offers a variety of courses in all areas of computer sci-

ence including courses in information technology. The following is a list of course numbers and titles classified by their area within computer science:

Hardware

- CS 311 Assembly Language and Computer Organization
CS 413 Computer Architecture

Computer Software

- CS 120 Computer Science Overview
CS 121 Computer Science I
CS 221 Computer Science II
CS 223 COBOL Programming
CS 321 Paradigms of Programming Languages
CS 425 Software Engineering

Systems Software

- CS 231 Systems Programming
CS 431 Introduction to Operating Systems
CS 433 Compiler Construction
CS 435 Data Communications and Networks
CS 437 Advanced Operating Systems Design

Theoretical Foundations

- CS 242 Introduction to Theoretical Computer Science
CS 341 Data Structures
CS 441 Analysis and Design of Algorithms
CS 443 Theory of Computation
MA 325 Numerical Analysis
MA 440 Graph Theory

Information Management

- CS 351 Business Systems Development
CS 451 Introduction to Files and Databases
CS 455 Relational and Object Databases
CS 456 Information and Decision Support Systems

Information Technology

- CS 104 Introduction to Microcomputer Software
CS 107 Internet and Web Programming
CS 205 Visual BASIC Applications
CS 207 Web Design and Programming
CS 225 Java for Multimedia

Applications

- CS 300 Internship in Computer Science
CS 305 Computer Laboratory Assistantship
CS 400 Directed Independent Study of Selected Topics
CS 461 Introduction to Artificial Intelligence and Knowledge Engineering
CS 462 Computer Graphics
CS 463 Introduction to Digital Image Processing and Computer Vision
CS 490 Seminar on Selected Topics
CS 499 Computer Science Project

Applied Mathematics and Modeling

- MA 231 Linear Algebra
MA 350 Probability and Statistics
MA 351 Applied Statistics
MA 359 Probability Models in Operations Research
MA 375 Deterministic Models in Operations Research

Computer Science Service Courses

- CS 100 Computer Science Orientation
CS 106 FORTRAN Programming
CS 109 Introduction to Computing Environments

Requirements for the Bachelor of Science Degree in Computer and Information Sciences

The requirements for the Bachelor of Science degree in Computer and Information Sciences include courses in mathematics, a core in computer science, and the courses in one of the selected tracks. The courses and the tracks are:

Computer Science (CS) Core Requirements (40 - 42 credit hours):

- | | | |
|--------|---|--------|
| MA 120 | Survey of Calculus I
or | 3 or 4 |
| MA 122 | University Calculus I | |
| MA 121 | Survey of Calculus II
or | 3 or 4 |
| MA 123 | University Calculus II | |
| CS 120 | Computer Science Overview | 4 |
| CS 121 | Computer Science I | 4 |
| CS 221 | Computer Science II | 4 |
| MA 210 | Discrete Mathematics | 4 |
| CS 231 | Systems Programming | 3 |
| CS 311 | Assembly Language & Computer Organization | 3 |
| CS 321 | Paradigms of Programming Languages | 3 |
| CS 341 | Data Structures | 3 |

- | | | |
|--------|-------------------------------------|---|
| CS 431 | Introduction to Operating Systems | 3 |
| CS 451 | Introduction to Files and Databases | 3 |

A. Theoretical Computer Science (TCS) (58 or 60 credit hours):

This track is designed for students who intend to pursue post graduate education in computer science or who will be seeking careers in scientific computing. The majority of course work in this track requires courses in the area of Theoretical Foundations.

- A1. CS Core
A2. TCS Requirements
A2.1. TCS Required Courses (12 credit hours)
CS 242, MA 325, CS 441
Any *one* course from:
CS 433, CS 443
A2.2. TCS Electives (6 credit hours)
Any *two* CS courses from:
CS 425, CS 435, CS 455,
CS 461, CS 462, CS 463,
CS 490, CS 499

B. Computer Information Systems (CIS) (76 or 78 credit hours):

This track prepares graduates for the careers in information and business systems development, maintenance and management. The majority of course work in this track requires courses in the area of Computer Information Systems. In addition, an understanding of business is enhanced by completing several courses in the areas of accounting, economics, and management.

- B1. CS Core
B2. CIS Requirements
B2.1. CIS Required Courses (12 credit hours)
CS 223, CS 351
Any *two* courses from:
CS 425, CS 455, CS 456
B2.2. CIS Electives (6 credit hours)
Additional CS courses from:
CS 435, CS 455, CS 456,
CS 461, CS 462, CS 463,
CS 490, CS 499
B3. Business Systems Requirements:
B3.1. Accounting: AC 201,
AC 202

- B3.2. Economics: EC 200, EC 202
 B3.3. Management:
 Any two courses from:
 BA 300, BA 321, BA 327,
 and BA 364

C. Computer Systems Software (CSS) (58 or 60 credit hours):

This track emphasizes computer systems development, design and architecture. It prepares graduates for system level programming, and for careers in system design, ensembles, architecture and networking. The majority of course work is in the area of Computer Systems Software.

- C1. CS Core
 C2. CSS Requirements
 C2.1. CSS Required Courses
 (12 credit hours)
 CS 242, CS 413, CS 433,
 CS 437
 C2.2. CSS Electives
 (6 credit hours)
 Additional CS courses from:
 CS 425, CS 435, CS 455,
 CS 461, CS 462, CS 463,
 CS 490, CS 499

D. Computing in General Sciences (CGS) (60 credit hours):

The track is designed for students who have interdisciplinary interests and prepares graduates for research and computing applications in other sciences. A student must complete 9 credit hours in one science: biology, chemistry, geosciences, geographic information systems, mathematics and physics. In addition to the Computer Science Core, courses in the area of Information Management and Software are required.

- D1. CS Core
 D2. CGS Requirements
 D2.1. Required CS Courses
 (6 credit hours)
 MA 325, CS 425
 D2.2. General Science (Required: 9 credit hours)
 Minimum of 9 credit hours from one of the following disciplines which are credited towards a B.S. degree
- Biology (BI 141-142, 144-145 and 241-242)
 - Chemistry (CH 115,

- CH 116, CH 200-level or higher)
 c. Geosciences (GS 165, GS 180 and one course from GS 210, GS 215, GS 330, GS 335, GS 340)
 d. Geographic Information Systems (GI 201, GI 301, and one course from GI 350, GI 370, GI 450, GI 480)
 e. Math (MA 231, MA 350, MA 300 level or higher)
 f. Physics (PH 230, PH 231, PH 300 level or higher)

D2.3. CS Electives (3 credit hours)

Additional CS course from: CS 435, CS 455, CS 461, CS 462, CS 463, CS 490, CS 499

E. Computing with Mathematical Modeling (CMM) (67 credit hours):

This track prepares graduates for employment in the area of discrete systems simulation, mathematical modeling and applied mathematics. This track requires courses in the areas of Theoretical Foundations and Mathematical Modeling.

- E1. CS Core
 E2. CMM Requirements
 E2.1. Required CS Courses
 (10 credit hours)
 MA 231, CS 242, CS 441
 E2.2. Applied Math Requirements (12 credit hours)
 Any four courses from the following:
 MA 350, MA 325, MA 351, MA 359, MA 375, MA 440
 E2.3. CMM Electives (3 or 4 credit hours)
 Additional CS courses from: CS 425, CS 435, CS 461, CS 462, CS 463, CS 490, CS 499

Course Requirements for Cooperative Engineering/Computer Science

Students in the 3-2 Cooperative Engineering program pursuing a degree in Computer Science from SUNY Fredonia take the following courses:

- | | | |
|--------|-------------------------|---|
| MA 122 | University Calculus I | 4 |
| MA 123 | University Calculus II | 4 |
| MA 223 | University Calculus III | 4 |
| MA 224 | Differential Equations | 3 |
| MA 210 | Discrete Math | 4 |
| MA 231 | Linear Algebra | 4 |

- | | | |
|--------|---|---|
| CS 120 | Computer Science Overview | 4 |
| CS 121 | Computer Science I | 4 |
| CS 221 | Computer Science II | 4 |
| CS 231 | Systems Programming | 3 |
| CS 311 | Assembly Language and Computer Organization | 3 |
| CS 321 | Paradigms of Programming Languages | 3 |
| CS 341 | Data Structures | 3 |
| CS 425 | Software Engineering | 3 |
| CS 431 | Introduction to Operating Systems | 3 |
| CS 451 | Introduction to Files and Databases | 3 |

Plus nine credit hours of CS Electives as advised by the CS Coordinator.

Internships

Experiential learning is encouraged through internships. Internships are designed as a way to develop knowledge and gain experience with computer technology in a job setting. Recently, students have successfully completed internships at AL Tech Speciality Steel Corp., Chemical Process Corp., Ultrapak, Buffalo General Hospital, Cummins Engine, M & T Bank, the Dunkirk and Fredonia Telephone Company, Unisys, Radio Shack and Brand Names. Several internships pay honorariums or minimum wages. Many other opportunities exist on campus for students to earn money as tutors, laboratory proctors, or computer laboratory assistants.

Computer Laboratories and Equipment

The department has its own laboratory (CS Lab) and manages two other laboratories within Fenton Hall. The CS Lab is maintained by a full-time faculty director, an associate director and a staff of paid student assistants from the Computer Science program. The CS Lab has three kinds of computers. First is a network of 10 Silicon Graphics Workstations that run the IRIX operating system. Popular languages such as ADA, C++, C, Fortran, Java, Open GL and other software development utilities are available on these machines. Second is a Microsoft NT-based cluster of 20 Pentium II workstations that run major state-of-the-art Microsoft software

packages such as Office 97 and Studio 97. The third is the Linux-based cluster of servers connected to a high-speed network that provides Internet and dial-up services. The machines in the laboratory are accessible from various remote locations across the campus. These facilities are dedicated to supporting instruction in the Computer Science major. The other two laboratories that are managed by computer science are primarily instructional laboratories and are open to students taking computer science courses. These laboratories mostly house a network of Pentium II workstations that run under Windows 95. Major Microsoft software packages are available on these machines. There are several other Pentium II-based microcomputer laboratories available on campus.

Graduation and Evaluation

To qualify for graduation, all Computer Science students registered in the B.S. program will be evaluated for having minimum knowledge in the core areas of Computer Science. The evaluation will be based on scores on tests conducted by Educational Testing Services (ETS) in conjunction with faculty evaluation of student performance in upper-level project-oriented courses. Students are responsible for paying any fees associated with the evaluation procedure.

Faculty and Student Research and Scholarship

The computer science faculty and Computer Science majors are actively involved in various research activities by attending international conferences, workshops and seminars, and publishing in high quality journals or proceedings. The department regularly runs joint faculty and student colloquia. Several students have won research paper competitions. Current areas of faculty and student research are image processing, pattern recognition, knowledge engineering, data compression, theoretical computer sci-

ence, remote sensing, combinatorics, and interdisciplinary applications.

Requirements for the Minor in Computer Science

Twenty-eight to 29 credit hours distributed as follows:

	Hrs.
MA 120 Survey of Calculus I or	3 or 4
MA 122 University Calculus I	
MA 210 Discrete Mathematics	4
CS 120 Computer Science Overview	4
CS 121 Computer Science I	4
CS 221 Computer Science II	4
CS 321 Paradigms of Programming Languages	3
CS 341 Data Structures	3
One additional 3 credit hour course in computer science as advised, the 300 level or higher.	3

In the list of courses below, 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

For courses with the prefix MA, please see the section on Mathematics on page 86 in this catalog.

CS 100. Computer Science Orientation **B**

(formerly CS 299)

A one-week course for computer science majors transferring from another college or university. Familiarizes students with the department's instructional computing environment. *Prerequisite:* three units of high school mathematics.

0 hours credit

CS 104. Introduction to Microcomputer Software **A**

(formerly called Introduction to Microcomputers)

Introduction to microcomputers; overview of MS-Windows; elementary concepts and operations of spreadsheets and database management systems; analysis of a variety of problems, their design, and implementation

of solutions using commercially available window-based software.

Prerequisite: three units of high school mathematics.

3 hours credit

CS 105. Visual BASIC Programming **A**

(formerly Introduction to Computing)

Introduction to MS-Windows; event-driven and object-oriented programming, tool-boxes, help; visual BASIC (VB) environment; forms and properties; form procedures, printing, etc.; communication and control; managing controls, input/output and messages; components of BASIC language: variables, data types, declarations, operators, writing VB code, decision-making and loops, formatting, functions and procedures, files; program development: graphics and business applications.

Prerequisite: three units of high school mathematics.

3 hours credit

CS 106. FORTRAN Programming **C**

(formerly CS 125)

Introductory level course in computer science using the programming language FORTRAN. Topics include: arithmetic operations, declaration statements, control statements, looping, input and output, arrays, functions, and subroutines. Applications to engineering, science, and mathematics. (Not open to Computer Science majors with junior standing.)

Prerequisite: MA 122 or equivalent.

3 hours credit

CS 107. Internet and Web Programming **A**

An introductory course in computer networks focusing on usage, applications, and programming on the Internet and WWW. Topics include: Internet, intranet, and WWW; web browsers; essentials of Unix and Windows operating systems; multimedia; hypertext; web pages and site design; applied programming; internet languages: HTML and CGI.

3 hours credit

CS 109. Introduction to Computing Environments **D**

Provides a working knowledge of computer systems and environments available in the department and on campus including an overview of system programs: compilers, loaders, utility programs, time-sharing system, etc.; interrelationships of system software; explanation of commonly used system programs and description of applications set-ups for accomplishing various tasks; overview of MS-Windows.

0 hours credit

CS 120. Computer Science Overview A

(formerly CS 160 Introduction to Computer Science)

A comprehensive overview of the scope and dynamics of computer science. Survey of the field of computer science. Topics include history of computing, computer organization and components, operating systems, programming languages, introduction to programming and program development, data structures, problem solving, software engineering, computer ethics, and computer applications.

Prerequisite: three units of high school mathematics.

4 hours credit

CS 121. Computer Science I A

(formerly CS 260 Programming I)

Problem solving, algorithm design and development, structured programming; elementary data types; expressions, I/O functions and control structures; functions: scope rules, pass by value, pass by reference; built-in functions; arrays; strings; structures; elementary sort and search algorithms; files.

Prerequisite: CS 120 or permission of the department.

4 hours credit

CS 205. Visual BASIC Applications B

Advanced Visual BASIC controls including Active X controls; creation of ActiveX controls; linking Visual BASIC programs with Microsoft Access database using the data control and bound controls; files and data management; introduction to query languages and SQL statements; use of Windows API calls in Visual BASIC to control Windows functionality; advanced graphics design and animation using Windows API calls; storing information to the registry and external files; creation of executable programs and help files ready for distribution on any Windows system; applications development: graphics and animation, file and data access including business applications, advance event-driven applications.

Prerequisite: CS 105.

3 hours credit

CS 207. WWW Design and Programming B

Server-based WWW programming on Windows and Unix systems; document object model (DOM) and dynamic HTML; image processing and creation of animated GIFs. CGI programming in C/C++, JavaScript, advanced use of cascading style sheets, Microsoft Active Server pages, ActiveX controls, and database access from a WWW page; programming with CGI scripts; Microsoft and Netscape WWW solutions.

Prerequisite: CS 107.

3 hours credit

CS 221. Computer Science II A

(formerly CS 261 Programming II)

Abstract data types; static and dynamic data structures; recursion; recursive programming; class concepts, encapsulation; linked lists; doubly linked lists; stacks, queues and their implementations and applications; binary trees; binary search tree; tree traversals; polymorphism and inheritance.

Prerequisite: CS 121.

4 hours credit

CS 223. COBOL Programming B

(formerly CS 265)

Introduction to the use of computers in business applications; file processing and updating; sorting and data management and reporting; use of external storage; input-output techniques; introduction to COBOL; elements of structured programming using COBOL; programming with business applications.

Prerequisite: CS 121.

3 hours credit

CS 225. Java for Multimedia B

Problem solving, algorithm design and program development using Java; elementary data types; expressions, variable scope and extent; procedures and data abstraction; class variables, instances and hierarchies; I/O functions and control structures; functions; built-in functions; create and access arrays; strings; basic sort and search algorithms; incorporating metadata into applications programs; simple business and multimedia applications.

Prerequisite: CS 105 or 120, or department's permission.

3 hours credit

CS 231. Systems Programming A

(formerly CS 360 Computer System Organization I)

Introduction to Unix and Unix utilities; shell programming; C programming language; Unix system calls for process communication and file structures; X-windows, windows managers; resource management, X-lib, and programming with toolkits and widget classes.

Prerequisite: CS 221.

3 hours credit

CS 242. Introduction to Theoretical Computer Science B

Elementary analysis of algorithms; an introduction to matrix algebra; graphs, digraphs, and trees; recurrence relations; switching circuits and logic gates; languages and grammars; machines and computations; program verification.

Prerequisites: MA 210 and CS 121.

3 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.

Prerequisite: permission of the department.

3-12 hours credit

CS 305. Computer Laboratory Assistantship A

Non-credit course for students interested in performing computer-related services for Computing Science program. Duties include: proctoring in computing laboratories; resolving equipment malfunctions and assisting with functional operations under the direction of the coordinator of Academic User Services. Grading is on an S/U basis.

Prerequisite: permission of the department.

0 hours credit

CS 311. Assembly Language and Computer Organization A

(formerly CS 361 Computer System Organization II)

Introduction to the basic concepts of computer architecture and machine instructions repertoire; memory access and storage; instruction execution; assembly language; computer organization; levels of computer structures; data representation and transfer; digital arithmetic; memory structure and addressing methods; cache; secondary memory structure and organization.

Prerequisite: CS 121.

3 hours credit

CS 321. Paradigms of Programming Languages A

(formerly CS 290 Programming Languages I)

Brief history of programming languages; language design issues; syntax and translation; data types; sequence control; data control; the procedural paradigm; the object-oriented paradigm; the functional paradigm; the logical paradigm.

Prerequisite: CS 221.

3 hours credit

CS 341. Data Structures A

(formerly CS 370)

Review of object-oriented programming; introduction to algorithmic complexities; sorting; generalized lists and list processing; priority queues; trees: m-ary trees, heaps, balanced trees, tries; hashing; graphs and graph algorithms; memory management; applications of above data structures.

Prerequisites: CS 221 and MA 210.

3 hours credit

- CS 351. Business Systems Development** **B**
(formerly CS 270 Business Programming II)
Review of business programming language principles and techniques; interfacing with operating system; sorting, table handling, indexing and searching; preparation and handling of data; file organization, design, and update; examples of business systems; business system analysis, design, and implementation; introduction to decision and expert systems.
Prerequisite: CS 223.
3 hours credit
- CS 400. Directed Independent Study of Selected Topics** **A**
Independent study of a selected list of readings approved by a faculty advisor.
Prerequisite: Permission of the department.
1-6 hours credit
- CS 413. Computer Architecture** **B**
Review of computer organization; digital logic; components of micro, mini, and mainframe architectures; architecture design principles; architecture classes; microprogramming; stack machines; parallel computers; pipeline processing; vector processors; VLSI and systolic architectures; data flow architectures; RISC machine; performance evaluation; architecture design languages; application and high level language oriented architectures.
Prerequisite: CS 311.
3 hours credit
- CS 425. Software Engineering** **B**
(formerly CS 430 Software Design and Development)
Basic concepts and major issues of software engineering; current tools and techniques providing a basis for analysis, design, development, maintenance, and evaluation of the system; structured walkthrough, testing; verification and validation; technical, administrative, and operating issues; privacy, security, and legal issues; developing a team project using software engineering principles.
Prerequisite: CS 341.
3 hours credit
- CS 431. Introduction to Operating Systems** **B**
(formerly CS 480 Operating System Concepts)
System software organization, purpose and functions of computer operating systems, batch processing systems: translation, loading and execution; serial and parallel I/O processing; spooling; interrupt facilities; memory protection and management; file systems; multi-access and special-purpose systems; process scheduling; accounting procedures and resource management; classical and popular operating systems.
Prerequisites: CS 311 and 341.
3 hours credit
- CS 433. Compiler Construction** **C**
(formerly CS 470)
Finite automata; languages and grammars; review of language structure, translation, linking, loading, execution; run-time storage organization; compilation of simple structures; compiler design principles, organization and implementation; lexical analysis; symbol tables; parsers and semantic analysis; code generation and optimization; error diagnostics.
Prerequisites: CS 311 and 341.
3 hours credit
- CS 435. Data Communications and Networks** **C**
(formerly CS 485 Introduction to Data Communications)
Teleprocessing; data communication system components: media, hardware and software; network architectures and topology; communication protocols and interfaces; functional layers; line utilization, switching and error handling; network interfaces; routing and flow control; point-to-point, broadcasting and local networks theory and current practices; reliability and security, encryption and compression; network programming.
Prerequisite: CS 311.
3 hours credit
- CS 437. Advanced Operating Systems** **C**
Review of contemporary operating systems, OS design principles and strategies; examination of communication and synchronization protocols; concurrent processes and process scheduling including their statistical analysis; distributed operating systems; client-server computing model; distributed resource management; multiprocessor OS; failure recovery and fault tolerance; data security; applications.
Prerequisite: CS 431.
3 hours credit
- CS 441. Analysis and Design of Algorithms** **B**
(formerly CS 380 Algorithms)
Introduction to design and analysis of algorithms: time and space complexity, verification of correctness; advanced algorithm design strategies: iterative, divide and conquer, greedy method, dynamic programming, branch and bound, etc.; specific examples drawn from sorting, searching, graph problems, matrices, polynomial arithmetic, cryptography; hard problems and approximation algorithms: Knapsack, bin packing, and graph coloring problems, etc.
Prerequisites: CS 242 and 341.
3 hours credit
- CS 443. Theory of Computation** **C**
(formerly CS 490)
Formal languages and grammars; context free and context sensitive grammars; pumping arguments; closure properties; decision algorithms; Turing machines; computability and decidability; halting problem; elementary complexity theory.
Prerequisites: CS 242 and 341.
3 hours credit
- CS 451. Introduction to Files and Databases** **B**
Large scale information organization; basic concepts and terminologies of file management techniques; storage hierarchies, external storage devices; mass storage systems; common file structures and organization methods; physical file organization; list, inverted, and tree structured file organization methods; file systems; concepts of data modeling; data languages; search, retrieval and processing methods; DBMS; introduction to relational databases.
Prerequisite: CS 341.
3 hours credit
- CS 455. Relational and Object Databases** **B**
(formerly CS 350 Database Management)
Review of data modeling and databases; entity/relationship and relational models; relational algebra; relational databases; database architecture; data integrity; SQL design; SQL and QBE languages; functional dependencies; normalization; data protection and SQL concurrency; data and database security; object-oriented databases; distributed and client/server systems; other advanced topics.
Prerequisites: CS 341 and 451.
3 hours credit
- CS 456. Information and Decision Support Systems** **C**
Information and computer information systems; information hierarchy; decisions and decision-making; functional components of a decision support system; intelligent/knowledge-based decision-making and knowledge management; architecture of decision systems; distributive and group decision-making; executive information systems; expert and fuzzy systems; reasoning and explanation; knowledge elicitation and representation; logistics and long-term decision-making.
Prerequisite: CS 451.
3 hours credit

CS 461. Introduction to AI and Knowledge Engineering **C**
(formerly CS 390 Introduction to Artificial Intelligence)

Overview of artificial intelligence tools and techniques; searching methods; applications of AI: game playing, expert systems and knowledge based systems; components of a knowledge based system; knowledge acquisition, representation, and formalization; numerical and symbolic processing; information theoretic and decision theoretic algorithms; inference engine; machine learning; reasoning and explanation; basic concepts and major issues of knowledge engineering; current tools and techniques for analysis, design, development of the knowledge based systems; applications in robotics, medical diagnosis, smart decision systems, etc.

Prerequisite: CS 341.

3 hours credit

CS 462. Computer Graphics **B**

Introduction to Computer Graphics; display memory; generation of points, vectors, shapes, objects, etc.; raster and geometric graphics; interactive and passive graphics; graphics peripherals; analog and digital images and analog/digital conversion; mathematics of 2-D and 3-D transformations; applications in animation, computer aided design and instruction; hypertext and multimedia; dialog design; user-interface.

Prerequisite: CS 341.

3 hours credit

CS 463. Introduction to Digital Image Processing and Computer Vision **C**

Introduction to digital image and signal processing, computer vision and pattern recognition; image acquisition, registry and display; elementary image processing algorithms: sampling, preprocessing, smoothing and sharpening; Fourier optics; orthogonal transformation; filtering; image encoding and restoration; analog and digital images and image processing systems; feature extraction and selection; elementary pattern classification and vision systems; robotics; machine learning.

Prerequisite: CS 341.

3 hours credit

CS 490. Seminar on Selected Topics **A**

Studies, discussions, workshops and seminars on selected topics in computer science. Written reports and a formal presentation are required.

Prerequisite: CS 341 and permission of instructor.

1 hour credit

CS 499. Computer Science Project **A**

Faculty directed work on a computer science project on topics of interest to faculty members, students and industry. Minimum of 80 hours of productive work required. A technical report documenting approach, methodology, and results must be submitted upon completion. Special arrangements can be made with the department to accept a project carried out by a student employed in industry with a computer related job function.

Prerequisites: CS 341 and 431 and permission of the department.

3 hours credit

CRIMINAL JUSTICE

Office: W381 Thompson Hall
(716) 673-4611

E-mail: CrimJus@fredonia.edu

B. Joyce Stephens, Coordinator

The interdisciplinary curriculum in Criminal Justice offers a broad-based knowledge of the criminal justice system. The program comprises courses in the areas of law, crime and society, public administration and human behavior. Graduates will be prepared for careers in the field of juvenile justice, law enforcement, adult corrections, rehabilitation and security. Internships are highly recommended. An Internship Seminar complements the internship placement. Participating internship sponsors include local police and sheriff departments, the county district attorney, Department of Probation, New York State Department of Corrections, U.S. Customs, and the county Victim/Witness program. In addition to the core requirements listed below, students are strongly urged to include General College Program and elective courses which will help develop effectiveness in writing and speaking, and which will help to acquire a knowledge of some standard computer software including a wordprocessing, spreadsheet and database program. Also, familiarity with bibliographic and data search routines is strongly encouraged.

This is an interdisciplinary model major program; for specific degree requirements unique to Interdisciplinary Studies, refer to page 82.

I. Core Requirements (9 credit hours)

SO 360	Criminal Justice System*	3
SO 362	Criminology*	3
SO 364	Juvenile Delinquency*	3
SO 366	Sociology of Corrections*	3

II. Human Behavior (15 credit hours)

EN 296	Sex, Violence and Racism	3
PY 245	Social Psychology*	3
	or	
SO 204	Social Psychology*	3
PY 246	Psychology of Personality*	3
PY 355	Group Dynamics*	3
PY 356	Abnormal Psychology*	3
SO 303	Social Class and Inequality*	3
SO 310	Sociology of Deviant Behavior*	3
SO 316	Minorities*	3
SO 363	Victimology*	3

III.A. Administrative Studies (6 credit hours)

BA 321	Management and Organizational Behavior	3
	or	
PS 311	Public Administration*	3
	or	
SO 325	Complex Organizations*	3
BA 330	Human Resource Management	3
PL 310	Administrative Ethics	3
PY 347	Industrial/Organizational Psychology*	3
SO 326	Human Relations in the Workplace*	3

or

III.B. The Legal System (6 credit hours)

PL 362	Philosophy of Law	3
PS 276	Law and Society	3
	or	
PS 277	Introduction to Law	3
PS 370	Constitutional Law*	3
PS 371	Civil Rights and Liberties*	3
SO 361	Law in the World*	3

IV. Skill Requirements (6 credit hours)

PY 200-210	Statistics/Research Methods*	6
	or	
SO 200-300	Statistics/Research Methods*	6

V. Internship (optional) (3 credit hours)

* this course requires a prerequisite.

Note: An internship is not required, but is recommended for students whose schedules permit one.

Requirements for the Minor in Criminal Justice

This group of courses is designed for students interested in a career in the police, corrections, probation, and other occupations within the criminal justice system.

A minimum of 24 credit hours is required in courses designated below as part of the Criminal Justice program. Up to 6 credit hours of transfer credit may be applied to meeting this requirement. An internship will be added to, not substituted for, any of the regular 24 hours required for the Criminal Justice minor. No more than 15 of the required 24 hours may be taken in one discipline. At least 15 of the required 24 hours must be at the advanced (300 or above) level. Students are encouraged to take one or more "methods courses" (egs. statistics, computer science, research methods, etc.) in addition to the required 24 hours for the minor.

Course Requirements:

PL 362	Philosophy of Law or	
PS 276	Law and Society or	
SO 360	Criminal Justice System or	3
SO 362	Criminology	

Plus 9 credit hours of courses from each of two of the three groups described below. Within each of the two groups selected, courses must be in at least two different disciplines.

Group A: Law, Crime and Society

AN 330	Comparative Law and Politics	
EN 296	Sex, Violence and Racism in Literature/Culture	
PL 312	Current Moral Issues and Principles	
PL 362	Philosophy of Law	
PS 276	Law and Society	
SO 361	Law in the World	
SO 362	Criminology	
PS 371	Civil Rights and Liberties	

Group B: Administration

BA 321	Management and Organizational Behavior	
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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	

Group C: Human Behavior

PY 245	Social Psychology or	
SO 204	Social Psychology	
PY 246	Psychology of Personality	
PY 356	Abnormal Psychology	
SO 303	Social Class and Inequality	
SO 310	Deviant Behavior	
SO 316	Minorities	
SO 363	Victimology	
SO 364	Juvenile Delinquency	

DANCE

(interdisciplinary minor only)

Office: 147 Dods Hall

(716) 673-3107

E-mail: Dance@fredonia.edu

Carol A. Prevett, Coordinator

Theatre and television have heightened interest in the moving art forms. The Dance minor combines technique training in movement with training in music and rhythm. Creativity is stressed in two courses in choreography and students have the opportunity to create dances, design sets, costumes, and lights for concerts. Students are welcome to participate in the dance club, Orchesis, which sponsors many activities throughout the year, including master classes and workshops with professional companies and teachers. The Dance minor is especially recommended for students in art, communication, education, music, theatre, and musical theatre.

Requirements for the Minor in Dance

A. 13 credit hours

DA 105	Folk Dance	1
DA 110	Dance Productions (4 semesters)	0
DA 111	Modern Technique I	2
DA 211	Modern Technique II (Prerequisite: DA 111)	2
DA 311	Modern Technique III (Prerequisite: DA 211)	2
DA 363	Choreography I (Prerequisite: DA 211)	3
DA 364	Choreography II (Prerequisite: DA 363)	3

B. 3 credit hours:

MU 101	Music Theory/Non-Majors (may be waived by advisor for those with extensive music background.)	
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C. 8 credit hours: to be selected from the following:

DA 106	Square Dance	1
DA 121	Beginning Tap	2
DA 122	Tap Dance II (Prerequisite: DA 121)	2
DA 131	Beginning Jazz	2
DA 132	Jazz Dance II (Prerequisite: DA 131)	2
DA 221	Beginning Ballet	2
DA 222	Ballet II (Prerequisite: DA 221)	2
DA 223	Ballet III (Prerequisite: DA 222)	2
DA 231	Afro-Caribbean Dance	2
DA 241	Improvisation (Prerequisite: DA 111)	2
DA 321	Dance for the Musical Theatre (Prerequisites: DA 121, 211)	2-3
DA 341	Selected Topics in Dance	1-3
DA 461-462	Practicum in Dance or	6
DA 561-562	Practicum in Dance (senior or graduate student - by audition only)	

A course in theatre history, musical theatre history or music history is strongly recommended.

In the list of courses below, 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

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 110. Dance Productions **A**
Designed to give practical experience in all aspects of dance productions including technique classes, rehearsals, lighting and costume designs, crew work, and stage managing. 0 hour credit

DA 111. Modern Technique I **B**
Introductory course in modern dance for the novice, covering the Humphrey-Weidman, Graham and Sanasardo techniques. Attendance at all dance concerts on campus required.

2 hours credit

DA 121. Beginning Tap Dance **B**
An introductory course in tap dance. Tap shoes and attendance at all dance concerts on campus required.

2 hours credit

DA 122. Tap Dance II **B**
A continuation of DA 121. Emphasis will be on artistic execution of dance combinations. Tap shoes and attendance at all dance concerts on campus required.

Prerequisite: DA 121

2 hours credit

DA 131. Beginning Jazz Dance **B**
An introductory course in jazz dance. Attendance at all dance concerts on campus required.

Prerequisite: DA 111.

2 hours credit

DA 132. Jazz Dance II **C**
A continuation of DA 131 with emphasis placed on artistic performance. Attendance at all dance concerts on campus required.

Prerequisite: DA 131.

2 hours credit

DA 211. Modern Technique II **B**
Modern dance technique class for the student who has had DA 111 or permission of instructor. Martha Graham technique emphasized. 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. Ballet II **B**
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 or permission of instructor.

2 hours credit

DA 223. Ballet III **C**
A continuation of classical ballet technique offered in DA 222 with emphasis on pointe

work and partnering. The Russian Vaganova and the Italian Cecchetti method of classical ballet will be taught. Attendance at all dance concerts on campus required.

Prerequisite: DA 222.

2 hours credit

DA 231. Afro-Caribbean Dance **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. Dance Improvisation **D**
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 or permission of instructor.

2 hours credit

DA 311. Modern Technique 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 or permission of instructor.

2 hours credit

DA 321. Dance for the Musical Theatre **C**

Designed to familiarize the intermediate dancer with the techniques of musical theatre ballroom dance for the stage; jazz and tap techniques are also covered. Films and video tapes will be utilized. Dances for musicals will be taught.

Prerequisites: DA 121, 211 or permission of instructor.

2-3 hours credit

DA 341. Selected Topics in Dance **A**
Independent Study in dance-related topics.

1-3 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. At-

tendance 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 461-462. Practicum in Dance **A**
Internship in dance teaching for senior or graduate dance students. By audition only. May be repeated.

3 hours credit per semester

(Earth Sciences, see Geosciences, page 67.)

ECONOMICS

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Amin Sarkar, Chairperson

Economics provides an understanding of how economic systems function and offers insight into the nature of real-world economic events, issues and problems while teaching the student a way of thinking that is clear, logical, analytical and rigorous. The study of economics encompasses a wide range of human behavior and experiences. Therefore, it has come to be widely recognized as a solid preparation for many professional careers in business, finance, non-profit organizations, and government.

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, business and public administration.

Economics majors have the opportunity to participate in *Omicron Delta Epsilon*, the International Honor Soci-

ety in Economics. Annually, the Hart-Gorman Economic Awards go to the outstanding sophomore and junior in majoring in Economics.

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. A recent study found that among the 14 majors that had more than 2,000 students taking the Law School Admission Test (LSAT), Economics students received the highest average test scores in recent years.

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 and Financial Economics; Data Analysis and Computer Applications; and Public Policy and Economics. Alternatively, with consultation and approval of the faculty advisor, the student may develop his/her own field of

specialization. Forty-five to 46 credit hours of course work are required for a major in Economics. A minor, which requires 21 hours in Economics, is also available (see page 41).

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.

Students who are contemplating graduate study in economics should consider taking the following courses as part of their specialization field:

EC 400	Econometrics
MA 122	University Calculus I
MA 123	University Calculus II
MA 231	Linear Algebra

The department strongly recommends that Economics majors take additional courses in accounting, computer science and calculus.

Requirements for the Bachelor of Arts Degree in Economics

1. Students majoring in Economics must complete 21 semester hours in core economics courses. These 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 450	Senior Seminar	3

2. In addition to the courses described above, each student must select a field (specialization) in some area of economics. Students

must complete courses in their chosen 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 eight 300-400 level courses, of which at least four must be in economics. Some recently designed fields include: Health Economics, Human Resource Economics, International Economic Policy, Environmental and Natural Resource Economics.

B. *Business and Financial Economics*

Three of the following courses:

EC 315	Money, Banking and Monetary Economics	3
EC 350	Managerial Economics	3
EC 405	Industrial Organization	3
EC 425	Financial Markets and Institutions	3

and 15 credit hours in business administration and economics, which must be above the 200-level

C. *Public Policy and Economics*

EC 370 Evolution of Economic Thought 3 and 21 credit hours in policy-oriented courses in political science and economics as advised, of which at least 9 hours must be in economics above the 200-level.

D. *Data Analysis and Computer Applications*

EC 350	Managerial Economics	3
EC 400	Basic Econometrics and Business Applications	3
MA 121	Survey of Calculus II	3
	or	
MA 123	University Calculus II	4

and 6 hours in computer science, which must be above the 100-level and 9 credit hours in mathematics, computer science, economics, Geographic Information Systems (G.I.S.), or business administration, as advised. Economics, G.I.S., and business administration courses must be above the 100-level.

The Department of Economics participates in the Cooperative Agriculture and Cooperative Engineering programs. Refer to descriptions of these programs on pages 6 and 53, respectively.

Requirements for the Minor in Economics

Twenty-one credit hours in economics are required for a minor. They include:

	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 credit hours of economics above the 200 level.

Requirements for the Certificate in 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 credit 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
EC 395 Comparative Human Resources	3

and 9 credit hours in foreign area study and/or international/comparative study. A maximum of 6 credit 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 115-116 Early and Modern Western Civilization or	6

HY 101-102 Global Survey I and II	6
PS 120 Introduction 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)

One political science course in American Politics	3
One political science course in non-American or International Studies	3
One course in minority studies: AN 321, AN 322, HY 336, HY 347, HY 356, HY 358 or SO 316	3
and 9 credit hours in history (one course in U.S. history, and one course in non-western areas: Asia, Africa, Latin America or the Middle East). <i>Plus either a General Social Studies or Economics Studies option</i>	9

General Social Studies Option

9 credit hours in history, economics, political science, sociology or anthropology (all courses must be 300 level or above with one course in U.S., one course in non-U.S. and one course in non-western areas: Asia, Africa, Latin America, Middle East)	9
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Economic Studies Option

Recommended for students who have interest in teaching economics in high school in addition to other social studies subjects.

EC 305 Intermediate Macroeconomic Theory	3
EC 310 Intermediate Microeconomic Theory	3
and 3 credit hours of economics from EC 315, EC 320, EC 345, EC 370, or EC 380	

Professional Education:

ED 101 First 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 hours

Students in all education programs are required to demonstrate competence in a foreign language. This requirement may be satisfied in any one of the following four ways: (1) completion of course work at the 116 level at Fredonia, or (2) transferring of two successful college semesters, or (3) scoring at

the 50th percentile or higher on the CLEP exam, or (4) completion of three years of high school language with a passing Regents score (passing = 65).

In the list of courses below, 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

EC 101. Introductory Economics B

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 102. Current Economic Issues B

An introduction to current economic problems and public policy issues and the techniques used by economists to address these issues. The topics covered in a semester may vary, but will include issues such as: environmental quality and pollution control; poverty and welfare reform; big business and government regulation; labor market discrimination; health care reform; taxation, government spending, and the national debt; international trade policy; inflation and unemployment. 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 Macroeconomics** **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:* a high school level algebra course is recommended.
3 hours credit
- EC 202. Principles of Microeconomics** **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:* a high school level algebra course is recommended.
3 hours credit
- EC/BA 300. Statistics for Economics and Business** **B**
Continuation of EC/BA 200. Study of the techniques and tools used in analyzing business and economic data with equal emphasis on interpretation of results while concentrating on estimation techniques. Problems of simple and multiple linear regression, non-parametric tests, analysis of variance, time series, forecasting and surveying are discussed, although topics will vary depending on department needs. Selected use of computer software packages, such as SAS/SPSS. *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 and MA 120.
3 hours credit
- EC 310. Intermediate Macroeconomic 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 312. Women in the Economy** **C**
Exploration of the economic status of women in the United States. Studies the changing role of women in the American economy from colonial times to the present. Emphasis is placed on women's labor market experiences and how these experiences are explained by economic theory. A major part of the course stresses current economic issues and policies specifically aimed at women including poverty, welfare, labor market mobility, and the status of the family. *Prerequisite:* EC 101 or EC 202 or permission of the instructor.
3 hours credit
- EC 315. 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 non-tariff 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 321. Economics of Multinational Corporations** **C**
Economic analysis of the operations of multinational corporations and the implications of global production, resource allocation, and distribution of goods and services. Emphasis on capital and technology transfer, intercontinental flow of information, transaction costs, transfer pricing and tax policies. *Prerequisite:* EC 201.
3 hours credit
- EC 325. Economics of Labor and Employment** **C**
Study of the public policy and theoretical bases of employer/employee relationships. Focus is on the economic behavior of employers and employees in response to the general incentives of wages, prices, profits, and working conditions, and on the legislative and policy treatments of this relationship in both unionized and non-unionized environments in both the public and private sectors of the economy. *Prerequisites:* EC 202 or permission of the instructor.
3 hours credit
- EC 330. Public Sector Economics** **C** (formerly Public Finance)
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** **B**
Comparative study of organization, operation and performance of some important economic systems. Emphasis on the socio-cultural and political environment, and on the institutional factors explaining the differences in the performance of various systems. *Prerequisite:* a college level economics course or permission of the instructor.
3 hours credit
- EC 350. Managerial Economics** **C**
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 and MA 120.
3 hours credit

EC 355. Labor and Industrial Relations **D**

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.

Prerequisites: EC 202 or permission of the instructor.

3 hours credit

EC 360. Health Care Economics **C**

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.

Prerequisites: EC 201, 202.

3 hours credit

EC 370. Evolution of Economic Thought **C**

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.

Prerequisites: EC 201, 202.

3 hours credit

EC 380. Environmental and Natural Resource Economics **C**

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 **D**

Examination of topics in economic issues, problems, theory and policy not covered in any other course offered by the department.

Prerequisites: EC 201, 202 or permission of instructor.

3 hours credit

EC 395. Comparative Human Resources **C**

Comparative study of labor market characteristics among U.S., Canada, Mexico, Japan, OECD countries and a selection of emerging market economies. Emphasis on those factors that enhance economic integration and influence human resource policies. Comparative policy analysis of medical care, immigration, employment training, minimum wages, work standards, unemployment insurance, retirement systems and collective bargaining.

Prerequisites: EC 201 or EC 202 or permission of the 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**

Study of the sources and consequences of monopoly power in the U.S. economy. 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.

Prerequisite: EC 305.

3 hours credit

EC 425. Financial Markets and Institutions **C**

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. Senior Seminar **B**

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

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Julius Gregg Adams, Director

Important Notification to Education Majors

As of July 16, 1998, the New York State Regents have proposed new certification titles for classroom teachers and standards for teacher education programs. Due to the transitional nature of changes in New York State Education requirements, program requirements may be altered according to state specifications. Therefore, students should check with their faculty advisor for explanation of program and certification requirements.

The School of Education offers opportunity for certification in four areas:

- Elementary Education
- Elementary Education/Early Childhood Education Emphasis
- Secondary Education
- Special Education in a cooperative program with the SUNY College at Buffalo.

Elementary Education: Preparation to teach Kindergarten through Grade Six (B.S. in Ed. degree-Certification Pre-K to 6).

Early Childhood Education: A program with special emphasis on preparing to teach very young children (B.S. in Ed. degree-Certification, Pre-K to 6).

Secondary Education: Preparation to teach biology, chemistry, earth science, English, French, mathematics, physics, social studies or Spanish (B.A. or B.S. degree-Certification, 7 to 12).

Special Education: Preparation to teach exceptional children (B.S. in Elementary Education from SUNY Fredonia. Certification in Special Education recommended by SUNY College at Buffalo).

The preservice preparation program followed by the School of Education is referred to as the Reflective and Responsive Educator (RARE) model. The general philosophy underlying the RARE model is simple, yet highly consistent with current educational reform movements:

All children can learn; they learn best when taught by reflective and responsive educators who carefully assess their instructional competence via reflections upon pupil performance. Responsive educators act upon information gleaned from their professional reflections; they make informed decisions and adjust instruction to enhance pupil progress.

All RARE participants complete a series of four, field-based experiences. Each field-based experience is taught in conjunction with a required education course to better establish the link between theory and practice. Each of the field experiences is highly structured, well supervised, and carried out with at least one other class member. In addition, students enroll in course work related to child and adolescent development, psychology in the classroom, and educational technology.

The School of Education requires an overall 2.5 cumulative grade point average and a 2.5 grade point average in education courses for admission into the program, including both internal and external transfers into the program.

Within the School of Education a dynamic and active Teacher Educa-

tion Club offers activities for the majors which enhance opportunities for academic, personal, and professional growth.

Numerous scholarships and awards are presented at the School of Education's Annual Convocation ceremony. The School of Education also houses a chapter of the national honors organization, *Kappa Delta Pi*.

Upon completion of degree requirements, students can experience a cultural and educational exchange either with Rolle College in Exmouth, England, or Swansea Institute in Wales.

Special Requirements

Identification of Child Abuse and Maltreatment

All persons applying for certification on or after January 1, 1991 are required to complete a minimum of two contact hours of course work or training in the identification and reporting of child abuse and maltreatment. This requirement can be met by satisfactory completion of ED 224, ED 225 or ED 349, or by completing a state approved training workshop.

Foreign Language Requirement

Students in all education programs are required to demonstrate competence in a foreign language. This requirement must be satisfied in any one of the following four ways: (1) completion of course work at the 116 level at SUNY Fredonia, (2) transferring of two successful college semesters, (3) scoring at the 50th percentile or higher on the CLEP exam, or (4) completion of three years of high school language with a passing Regents score (65 or higher).

Sciences Requirement

Students in all education programs must successfully complete a minimum of 7 credit hours in science from two different departments.

New York State Certification Test

Candidates for provisional teacher certification must successfully complete the New York State Teacher Certification Examinations: Assessment of Teaching Skills-Written and Liberal Arts and Sciences Test.

Elementary Education

Elementary Education Course Requirements:

	Hrs.
ED 105 Introduction to Contemporary Education	3
ED 225 Developmental Psychology	3
ED 227 Electronic Classroom	1-3
ED 250 Introduction to the Exceptional Learner	3
ED 305 Multicultural Education	3
ED 349 Educational Psychology	3
HE 300 Education in Drugs, Alcohol, and Tobacco	1
MA 201 Structure of Number Systems	3
<i>Plus</i> an area of concentration: 27-30 hours	
<i>Plus</i> , the Professional Year	

Elementary Education/ Early Childhood Education

Elementary Education Course Requirements:

ED 105 Introduction to Contemporary Education	3
ED 221 Early Childhood Education Curriculum I	3
ED 225 Developmental Psychology	3
ED 250 Introduction to the Exceptional Learner	3
ED 315 Early Childhood Curriculum II	3
ED 349 Educational Psychology	3
ED 432 Building Home/School Partnerships	3
ME 315 Music, Play and Self	3
HE 300 Education in Drugs, Alcohol & Tobacco	1
MA 201 Structure of Number Systems	3
<i>Plus</i> , an area of concentration: 27-30 hours	
<i>Plus</i> , the Professional Year	

The Professional Year

Methods and Student Teaching

Fall Semester:

ED 402 Teaching Mathematics in the Elementary School	1.5
ED 403 Teaching Science in the Elementary School	1.5

ED 404	Teaching Social Studies in the Elementary School	1.5
ED 405	Teaching Reading in the Elementary School	1.5
ED 406	Teaching Language Arts in the Elementary School	1.5
ED 416	Classroom Organization, Management and Foundations	1.5
ED 420 or ED 422	Student Teaching in the Elementary School	6

Spring Semester:

ED 442	Integrating Mathematics in the Elementary Curriculum	1.5
ED 443	Integrating Science in the Elementary Curriculum	1.5
ED 444	Integrating Social Studies in the Elementary Curriculum	1.5
ED 445	Integrating Reading in the Elementary Curriculum	1.5
ED 446	Integrating Language Arts in the Elementary Curriculum	1.5
ED 416	Classroom Organization, Management and Foundations	1.5
ED 420 or ED 422	Student Teaching in the Elementary School	6

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 Director of the School of Education and/or the Director of the Office of Field Experiences.

Entrance into the Professional Year: Students will be admitted to the Professional Year based upon the following criteria:

1. Completion of declaration of major;
2. Completion of concentration;
3. Completion of required education courses;
4. A minimum cumulative grade point average of 2.50;
5. A minimum grade point average of 2.50 in all required education courses;
6. A minimum grade of C in EN 100 and MA 201 or their equivalents; and
7. The recommendation of the School of Education faculty.

Prerequisite for entering student teaching and remaining in the Professional Year is the successful completion of all methods classes.

While in the Professional Year, students must maintain a minimum cumulative grade point average of 2.50.

Areas of Concentration

Art (30 credit hours)

AR 115	Masterpieces in Art to 1400	3
AR 116	Masterpieces from 1400	3
AR 325	Italian Renaissance Art	3
AR 351	Special Topics: Art History	3
AR 435	Oriental Art	3
AR 441	Directed Study: Art History	3
AR 495	Independent Studio Projects	3
<i>Plus one of the following:</i>		
AR 205	Great Masters of Art	3
AR 251	Arts & Reality - 19th Century America	3
<i>Plus one of the following:</i>		
AR 321	Modern Art	3
AR 327	Baroque Art	3
<i>Plus one of the following:</i>		
AR 340	History of Architecture	3
AR 347	20th Century American Architecture	3

English (30 credit hours)

EN 357	Literacy, Language and Reading	3
EN 358	Composition for Elementary Education Teachers	3
<i>Plus three of the following:</i>		
EN 205	Epic & Romance	9
EN 207	Drama and Film	9

EN 209	Novels and Tales	
EN 211	World Poetry	15
<i>Plus 15 credit hours of upper level electives by advisement (may include no more than 6 credit hours at the 200 level)</i>		

French (27 credit hours)

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 Pronunciation	3

*Plus 9 elective credit hours in French**
Students are strongly advised to include:

LF 310	The Literature and Culture of Quebec	
LF 316	French Masterpieces II	
LF 320	Survey of French Literature	
LF 323	France Today	

* Students with entry-level competence above LF 216 will meet a 24 hour requirement.

Mathematics (27-29 credit hours)

MA 201	Structure of Number Systems	3
MA 202	Concepts of Modern Mathematics	3
MA 210	Discrete Mathematics	4
<i>Plus one of the following:</i>		
CS 105	Visual BASIC Programming	3-4
CS 120	Computer Science Overview	
MA 125	Software for Mathematics	
<i>Plus one of the following sequences:</i>		
MA 120-	Survey of Calculus I and II	6
121		
MA 122-123	University Calculus I and II	8

Plus two or three additional courses chosen from the following:

MA 117	Why Mathematics?	
MA 110	Mathematics in Action	
ED 200	Statistics	
or		
MA 200	Statistical Ideas	
MA 231	Linear Algebra	
MA 315	Theory of Equations	
MA 335	Number Theory	
MA 337	Combinatorics	
MA 341	Geometry	
MA 381	History of Mathematics	

Students will be reviewed for potential in math and capable students encouraged to select this as their concentration. These students will be screened and placed in appropriate entry level courses. They will be monitored, assisted and advised by advisors in the mathematics department (MA 106 Pre-Calculus will be accepted in the concentration if it is the appropriate entry level course.)

			<i>Plus 6 additional hours at the 300 or 400 level</i>	6	EC 201	Principles of Macroeconomics	
			<i>*Prerequisite: 16 credit hours of chemistry</i>		EC 202	Principles of Microeconomics	
Music (32 credit hours)			Chemistry Minor (35 credit hours)		SO 116	Introduction to Sociology	
MU 121 Aural Theory I	2		CH 116-126 General Chemistry II & Lab	4	AN 115	Introduction to Anthropology	
MU 122 Aural Theory II	2		<i>Plus 16 additional credit hours at the 200 level or above selected under advisement.</i>	16		<i>Plus 15 additional credit hours at the 300 level or above in Non-Western Studies electives (may include no more than 6 hours at the 200 level)</i>	15
MU 123 Written Theory I	2		Of these additional hours:			Spanish Concentration (27 credit hours)	
MU 124 Written Theory II	2		(1) at least 2 credit hours must be in lab courses;		LS 215	Intermediate Spanish I	3
ME 315 Music, Play, and Self	3		(2) at least 6 credit hours must be from 300 or 400 level courses;		LS 216	Intermediate Spanish II	3
MU 450 Directed Studies (Musicianship I/Obs.)	2		(3) CH 305, 371, and 372 cannot be counted.		LS 315	Introduction to Hispanic Literature	3
MU 451 Directed Studies (Musicianship II/Obs.)	2				LS 317	Spanish Conversation	3
<i>Plus any four Music History courses from the following:</i>	12		Geoscience Minor (36 credit hours)		LS 318	Spanish Composition	3
MU 252 History-Western Music 1750-1875			(GS 100 waived)			<i>Plus 12 elective hours in Spanish*</i>	12
MU 255 History-Western Music 1875-Present			GS 120 *Map Reading & Interpret.	1		* Students are strongly advised to include:	
MU 262 American Music			GS 130 *Mineral, Rock and Fossil Identification	1	LS 319	Survey of Spanish Literature	
MU 265 History of Jazz			GS 150 Moons and Planets	3	LS 320	Survey of Spanish Literature II	
MU 267 African American Music			GS 160 Oceanography	3	LS 325	Survey of Spanish American Literature II	
MU 333 Musics of the World			GS 165 Physical Geology	3	LS 401	Imperial Spain	
<i>Plus any three from the following:</i>	3		GS 180 Weather and Climate	3	LS 421	Advanced Spanish Phonetics and Diction	
MU 118 Piano Class			GS 210 Historical Geology	3	LS 425	Spanish-American Fiction	
MU 217 Piano Class Intermediate			GS 215 Minerals and Rocks	4		<i>* Students with entry-level competence above LS 216 will meet a 24-hour requirement.</i>	
MU 218 Piano Class Intermediate			GS 330 Geomorphology (or one 4 credit hour course at the 200 level or higher)	4		Cooperative Special Education	
MU 317 Piano Class Advanced			<i>*Prerequisite or co-requisite: GS 100 or GS 165</i>			E234 Thompson Hall	
MU 318 Piano Class Advanced						(716) 673-4656	
<i>Choose either guitar or social instruments:</i>			Physics Minor (48 credit hours)			Barbara Mallette, Coordinator	
ME 210 Guitar Class	1		(PH 101-111 waived)			<i>Program Description</i>	
ME 211 Guitar Class	1		PH 230/232 University Physics I & Lab	4		This is a cooperative program with the State University College at Buffalo, which meets the requirements for certification in New York State for Special Education and Elementary Education teachers. This program, which accommodates a limited number of students, permits students to enroll at SUNY Fredonia for four years, completing required elementary education courses, and additional course work in the arts and sciences. During the fifth year, students complete necessary course work and practica in Special Education at the SUNY College at Buffalo.	
MY 270 Social Instruments	2		PH 231/233 University Physics II & Lab	4			
			PH 234 Modern Physics	4			
Science Concentrations			<i>Plus 9 additional credit hours in physics courses numbered 321 through 479, 490 as advised and approved by the physics department and School of Education.</i>				
Biology, chemistry, geosciences or physics. Students will successfully complete introductory course work including labs and a minor in one science. GCP courses may in some cases be applied to the concentration.			<i>Plus:</i>				
Introductory Courses:			MA 122 University Calculus	4			
BI 111 Introduction to Biology or	3-4		MA 123 University Calculus II	4			
BI 141-142 Plant Diversity and Ecology & Lab (required for BI minor)			MA 223 University Calculus III	4			
CH 115-125 General Chemistry & Lab	4		MA 224 Differential Equations	3			
GS 100 Earth Sciences	3		<i>Plus 3 additional MA credit hours.</i>	3			
<i>Plus one of the following:</i>	1		Social Studies Concentration (30 credit hours)				
GS 120 Map Reading and Interpretation			HY 105 U.S. History to 1877	3			
GS 130 Mineral, Rock and Fossil Identification			HY 106 U.S. History Since 1877	3			
<i>Plus one of the following:</i>	3		PS 120 American Politics	3			
PH 101 Topics in Contemporary Science			<i>Plus one of the following:</i>	3			
PH 111 Introduction to Physical Sciences			HY 101 World History I				
			HY 102 World History II				
Biology Minor (33 credit hours)			HY 115 Early Western Civilization				
BI 144-145 Animal Biology and Evolution & Lab	4		HY 116 Modern Western Civilization				
BI 241-242 Introductory Cell Biology & Lab	4		<i>Plus one of the following:</i>	3			
<i>Plus one of the following:</i>	4						
BI 330-331 General Ecology & Lab							
BI 333-334 *Biochemistry & Lab							

Students completing this program will obtain a bachelor's degree (B.S. in Ed.) in Education from SUNY Fredonia. Fredonia will recommend state certification in Elementary Education and in Special Education only after the SUNY College at Buffalo indicates student completion of required special education courses and practica.

Course Requirements:

ED 105	Introduction to Contemporary Education	3
ED 200	Statistics	3
or		
PY 200	Statistics	3
ED 221	Early Childhood Curriculum I	3
ED 225	Developmental Psychology	3
ED 250	Introduction to the Exceptional Learner	3
ED 315	Early Childhood Curriculum II	3
ED 349	Educational Psychology	3
ED 351	Classroom Management and Learning Principles	3
ED 355	Learning and Behavior Disorders of Children	3
HE 300	Education in Drugs, Alcohol and Tobacco	1
MA 201	Structure of Number Systems	3

Plus an Area of Concentration

Plus the Professional Year

Plus 24 to 30 hours in special education from the SUNY College at Buffalo

Middle School Extension

Elementary Education/Middle School Extension, Grades 7-9.

In addition to completing Fredonia's registered Elementary Education program, Middle School Extension students typically complete a minimum of 12 additional credit hours. Required core course work includes:

ED 224	Adolescent Development	3
ED 321	Teaching in the Middle School	3

Plus one concentration as listed below:

Areas of Concentration

English (36 credit hours)

EN 355	Literature for Adolescents	3
EN 357	Literacy, Language and Learning Theory	3
EN 358	Composition for Elementary Education Teachers	3

Plus three of the following: 9

EN 205	Epic & Romance	3
EN 207	Drama & Film	3
EN 209	Novels & Tales	3
EN 211	World Poetry	3
Additional hours of upper level electives by advisement (maximum of 6 credit hours at the 200 level)		18

French (36 credit hours)

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 319	Survey of French Lit. I	3
LF 421	Adv. French Pronunciation	3

Additional hours at 300 level or above selected under advisement 15

Spanish (36 credit hours)

LS 215	Inter. Spanish I	3
LS 216	Inter. Spanish II	3
LS 315	Intro. Hispanic Lit.	3
LS 317	Spanish Conversation	3
LS 318	Spanish Composition	3
LS 421	Adv. Spanish Phonetics-Dic.	3
Additional hours at 300 level or above selected under advisement		18

Mathematics (34 credit hours)

CS 121	Computer Science I	4
MA 200	Statistical Ideas or ED 200 Statistics	3
MA 201	Structure of Number Systems	3
MA 202	Concepts of Modern Mathematics	3
MA 210	Discrete Mathematics	4
Plus one of the following:		3-4
CS 105	Visual Basic Programming	3
CS 120	Computer Science Overview	3
MA 125	Software for Mathematics	3
Plus one of the following sequences:		6-8
MA 120-121	Survey of Calculus I and II	6
MA 122-123	University Calculus I and II	6

Additional hours selected under advisement to bring the total to at least 34 credit hours. Must have one 300 level math course from the following courses:

MA 117	Why Mathematics?	3
MA 125	Software for Mathematics	3
MA 223	University Calculus III	3
MA 224	Differential Equations	3
MA 231	Linear Algebra	3
MA 315	Theory of Equations	3
MA 331	Abstract Algebra I	3
MA 335	Number Theory	3
MA 337	Combinatorics	3
MA 341	Geometry	3
MA 381	History of Mathematics	3

Precalculus Math will be accepted in the concentration if it is the appropriate entry level course.

Science (39-54 credit hours)

Note: In addition to the 15 credit hours in Introductory Courses and the 18 to 36 credit hours in their science minor, Middle School Extension students are required to complete 6 additional credit hours in a science other than their minor.

Introductory Courses:

BI 111	Intro. to Biology	3-4
or		
BI 141-142	Plant Diversity and Ecology and lab	4
CH 115/125	General Chemistry I and Lab	4
GS 100	Intro. To Earth Science	3
Plus one of the following:		1
GS 120	Map Reading & Interpretation	1
GS 130	Mineral, Rock & Fossil Iden.	1
PH 111	Intro. to Physical Sciences	3

Plus one of the following minors:

Biology Minor (33 credit hours)

BI 144-145	Animal Biology and Evolution & Lab	4
BI 241-242	Introductory Cell Biology and Lab	4
Plus one of the following:		4
BI 330-331	General Ecology & Lab	4
BI 333-334	*Biochemistry	4

Plus an additional 6 hours at the 300 or 400 level selected under advisement

*Prerequisite: 16 hours of chemistry

Chemistry Minor (35 credit hours)

CH 116/126	General Chemistry II and Lab	4
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Plus 16 additional hours at 200 level and above selected under advisement. Of these additional hours: at least 2 hours must be in lab courses; at least 6 hours must be from 300 or 400 level courses; CH 305, 371 and 371 cannot be counted.

Geosciences Minor (36 credit hours)

GS 120	* Map Reading and Interpretation	1
GS 130	* Mineral, Rock and Fossil Identif.	1
GS 150	Moons & Planets	3
GS 160	Oceanography	3
GS 165	Physical Geology	3
GS 180	Weather & Climate	3
GS 210	Historical Geology	3
GS 215	Minerals & Rocks	4
GS 330	Geomorphology	4

*Prerequisite or corequisite: GS 100 or GS 165

Physics Minor (48 credit hours)

PH 230/232	University Physics I and Lab	4
PH 231/233	University Physics II and Lab	4
PH 234	Modern Physics	4
<i>Plus 9 additional credit hours at 300 level or above selected under advisement</i>		9
Additional credit hours in mathematics, including:		15
MA 122	University Calculus I	
MA 123	University Calculus II	
MA 223	University Calculus III	
MA 224	Differential Equations	

Social Studies (36 credit hours)

HY 105	U.S. History to 1877	3
HY 106	U.S. History Since 1877	3
PS 120	Intro. to American Politics	3
<i>Plus one of the following sequences:</i>		6
HY 115-116	Western Civilization	
HY 101-102	World History I & II	
<i>Plus one of the following:</i>		3
AN 115	Intro. to Anthropology	
EC 201	Principles of Macroeconomics	
EC 202	Principles of Microeconomics	
SO 116	Intro. to Sociology	
Additional upper level courses selected under advisement including courses in geography, American history and government, and non-western studies		18

Secondary Education

<i>Course Requirements:</i>		<i>Hrs.</i>
ED 101	First Field Experience	0
ED 224	Adolescent Development	3
ED 250	Introduction to the Exceptional Learner or equivalent	3
ED 305	Multicultural Education or equivalent	3
ED 349	Educational Psychology	3
ED 419	Secondary School Methods	3
ED 430	Student Teaching in the Secondary School	15
		30

Students enroll in ED 419 Secondary Methods during the fall semester and student teaching during the spring semester.

Program Structure and Requirements:

Entrance into the Secondary Education Certification Program: Secondary education students are majors in the department of their certifica-

tion 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 after the following requirements have been satisfied:

1. A minimum cumulative grade point average of 2.50;
2. A minimum grade point 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. Approval of the director of the School of Education based upon the commendation 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; and
6. A minimum grade of C in EN 100 or its equivalent.

Prerequisite for entering student teaching and remaining in the Professional Year is successful completion of all methods classes.

Candidates for provisional teacher certification must successfully complete the New York State Teacher Certifications Examinations: As-

essment of Teaching Skills-Written and Liberal Arts and Sciences Test.

Foreign Language Requirement

Students in all education programs are required to demonstrate competence in a foreign language. This requirement must be satisfied in any *one* of the following four ways: (1) completion of course work at the 116 level at SUNY Fredonia, (2) transferring of two successful college semesters, (3) scoring at the 50th percentile or higher on the CLEP exam, or (4) completion of three years of high school language with a passing Regents score (65 or higher).

Bachelor of Arts in Social Studies

Responsibility for the Bachelor of Arts (B.A.) in Social Studies-Secondary Education is shared by the School of Education and the Department of History. Advisement and final approval of requirements is completed by the Department of History.

Requirements of Transfer Credit: Students transferring credits to Fredonia should normally expect no more than 27 hours earned elsewhere to apply to the Social Studies course requirements. (Special consideration can be given to students who have earned a B.A. degree in one of the social sciences.) As a rule, the department will not accept as equivalents to advanced social studies courses, credits earned at two-year colleges. All requirements for ED 419 and ED 430 must be completed under Fredonia supervision. Transferred courses to be applied to the requirements of the Social Studies program must have been completed with a grade of C+ or better.

Other Requirements: All majors must fulfill all testing and assessment requirements set by the department. That presently includes pre- and post-testing. Grades must be C+ or better in all required courses in the Social Studies program. GCP parts I A and B, or their

equivalents, must be passed with a C or better. Students are encouraged to complete one course in statistics and HY 201 Doing History as part of the General College Program.

Requirements beyond those of the General College Program include:

Professional Education Courses:

ED 101	First Field Experience
ED 224	Adolescent Development
ED 250	Intro. to the Exceptional Learner
ED 305	Multicultural Education
ED 349	Educational Psychology
ED 419	Secondary School Methods
ED 430	Student Teaching in the Secondary Schools

Social Studies Courses: Introductory

HY 105	U.S. History to 1877	3
HY 106	U.S. History Since 1877	3
EC 201	Principles of Macroeconomics	3
EC 202	Principles of Microeconomics	3
<i>Plus</i>		
HY 101	World History I or	3
HY 115	Early Western Civilization and	
HY 102	World History II or	3
HY 116	Modern Western Civilization	
<i>Plus one of the following</i>		
PS 120	Intro. to American Politics	3
PS 150	U.S. and World Affairs	
<i>Plus one of the following:</i>		
SO 116	Introductory Sociology	3
AN 115	Introductory Anthropology	

Social Studies Courses: Advanced (300-400 level) For more information, see page 76.

One political science course in American politics as advised (PS 313, 323, 324, 329, 370 or 371)

One political science course in non-American or international studies as advised (PS 330, 331, 332, 334, 341, 344, 347, 349, 352, 354, 355, 356, 359)

One course in minority studies as advised (AN 321, 322, HY 220, 333, 334, 347, 356, 358 or SO 316)

Plus 9 credit hours in history as advised, including one course in each of the following: U.S. studies, European studies, non-Western studies (Asia, Africa, Latin America or Middle East)

Plus either a General Social Studies or Economics Studies option.

General Social Studies Option

9 credit hours in history, economics, political science, sociology, or anthropology (all courses must be 300 level or above with one course in U.S., non-U.S., and non-Western areas as above)

Economic Studies Option

Recommended for students who have an interest in teaching economics in high school in addition to social studies subjects.

EC 305	Intermediate Microeconomic Theory
EC 310	Intermediate Macroeconomic Theory

One elective (chosen from EC 315, 320, 345, 370 or 380) as advised.

Foreign Language Requirement

Students in all education programs are required to demonstrate competence in a foreign language. This requirement must be satisfied in any one of the following four ways: (1) completion of course work at the 116 level at Fredonia, (2) transferring of two successful college semesters, (3) scoring at the 50th percentile or higher on the CLEP exam, or (4) completion of three years of high school language with a passing Regents score (65 or higher).

Enrolled students and transfer students wishing to declare the Social Studies major must have an overall GPA of 2.50. 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 the senior, professional year is also contingent upon a personal interview and review by the Social Studies screening committee of history faculty and area social studies teachers. A copy of the criteria used by the screening committee may be obtained in the history department. Following the screening process, acceptance into student teaching requires approval by the director of the School of Education. For requirements for the Professional Education courses and entrance to student teaching, consult the School of Education listing on page 48. Students are strongly advised to pursue a sec-

ond major in one of the social science disciplines (economics, history, political science, or sociology/anthropology) and may count appropriate courses taken for the Social Studies major and the General College Program requirements towards such a second major. A student wishing Social Studies certification with the history major should explore this option with his or her Social Studies academic advisor.

Honors and Awards

Academic Excellence in Elementary Education

Eligibility: (1) acceptance to the Professional Year program, (2) an overall GPA of 3.2 or higher, (3) a minimum of a B+ in each education course taken during the freshman, sophomore and junior years, and (4) a minimum of 12 credits in education courses taken at SUNY Fredonia. *Selection process:* final decision as to the actual recipients rests with the School of Education Honors and Awards Committee. If needed, input may be requested from the faculty of the School of Education.

Honors in Elementary Education Methods

Eligibility: the student must receive an A in each methods course taken during the Professional Year program. *Selection process:* final recipients will be decided by a vote of the Professional Year faculty based upon evidence of exceptional work done by the student during methods courses.

Excellence in Student Teaching

Eligibility: (1) the student must be nominated as showing "exceptional promise" during the fall (fall and winter in Hamburg) semester student teaching experience, and (2) the student must be nominated as being an "exceptional beginning teacher" during the spring semester student teaching experience. *Selection process:* (1) in the fall (fall and winter in Hamburg) the college supervisors will submit nominations of student teachers whom they consider have shown "exceptional

promise” of continued growth as future classroom teachers, (2) in the spring, the college supervisor, using the nomination checklist supplied by the Office of Field Experiences, will submit nominations of student teachers whom they consider to be “exceptional beginning teachers, and (3) all nominees will be reviewed by the Professional Year faculty and listed under the categories “definite” or “marginal.” Their recommendations will be given to the Honors and Awards Committee who will make the decision as to the final recipients of the award.

Tuition Remission Awards in Elementary Education

Eligibility: students who have received Academic Excellence in Elementary Education Award and/or who are on the fall list for Honors in Elementary Education Methods. **Selection process:** (1) the Professional Year faculty will submit the list of students under consideration for Honors in Elementary Education Methods to the Honors and Awards Committee, (2) notification of eligible students by mail will be made within the following week, (3) eligible students will be told for which award they are being considered and requested to write a one-page letter justifying their selection, and (4) on or before December 15, the Honors and Awards Committee will make its decision as to the award recipients and notify the Fredonia College Foundation. The following awards are included in this category:

- Anthony M. Deifulio Memorial Scholarship
- Helen Kelly Lillie Award
- Floyd and Mabel Melvin Scholarship Fund
- Byron and Carrie Record Scholarship
- Marjorie E. Woods Scholarship.

Cash Awards in Elementary Education

Eligibility: students who have received Academic Excellence in Elementary Education Award and/or who have received Honors in Elementary Education Methods. **Selection process:** (1) at the end of the second semester methods classes of the Professional Year program, faculty will submit to the committee the names of those students who are under consideration for Honors in Elementary Education Methods, and (2) the Honors and Awards Committee, taking into consideration the specific requirements of the individual awards, will decide the recipients. The following awards are included in this category:

- Fanny Bartlett Award (Alumni Association)
- Louis E. Rath Award (Early Childhood Education, even years)
- Helen Buderkin Award (Early Childhood Education, odd years)
- Carol Scrace Pierce Award (Exceptional Education).

School of Education Awards for Secondary Student Teaching

Eligibility: each academic department having a Secondary Education program is eligible to submit the name of one student for the award in their discipline (English, French, Spanish, Biology, Earth Science, Chemistry, Physics, Mathematics, Social Studies). **Selection process:** nominees will be judged on criteria established by their individual departments to include performance in content and methods classes, as well as student teaching. The winning name from each department will be given to the Honors and Awards Committee for presentation.

Junior Year, Tuition Remission Special Education Awards

Eligibility: students must be part of the Special Education teaching program and be completing their junior year. **Selection process:** based

upon the criteria of the award, the Honors and Awards Committee, in conjunction with faculty teaching Special Education related courses, will decide the recipient of the tuition remission award. Included in this category is:

- Gustave and Geraldine Werner Foundation Scholarship.

Secondary Education in Social Studies Awards

Included in this category is:

- Terry L. Wolfenden Scholarship Fund.

For further information, interested students should contact the Honors and Awards Committee of the School of Education.

Requirements for the Minor in Educational Studies

The School of Education offers a non-certification 24 credit hour minor in Educational Studies. This minor is available to non-teacher education majors who wish to include an in-depth minor in Educational Studies in their college programs.

Core Courses (12 credit hours)

ED 225	Developmental Psychology or	3
ED 224	Adolescent Development	
ED 250	Intro. to the Exceptional Learner	3
ED 305	Multicultural Education	3
ED 349	Educational Psychology	3

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.

Courses Open to Non-Majors: ED 105, 200, 220, 225, 275, 326, 351, 355.

In the list of courses below, 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

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.

1 hour credit

ED 101. First Field Experience B

Secondary Education majors are introduced to teaching by enrolling in a 25-hour observation participation experience. Arrangements for the January participation are made by the student in a school of their choice with assistance from the Office of Field Experiences.

0 hours 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. Field experience component required.

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 214. Introduction to Children's Literature D

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 B

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 220. Child Development D

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. Introduction to Early Childhood Education Curriculum I B

A history and philosophy of early childhood education. Theoretical perspectives influencing early childhood program models. Emphasis on observing, recording, and interpreting the behavior of young children in a variety of child care settings (Infant-Preschool). Field experience component required.

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.

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.

1-3 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 275. Introduction to the Teaching of Reading in the Elementary School B

Introduction to techniques, activities, and materials employed in teaching elementary school students how to read. Focuses on traditional texts and reading materials, as well as hands-on experience in applying micro-computers in the teaching of reading. The use of writing as a technique in the teaching of reading will also be employed. Specifically designed to prepare students for participation in elementary school classrooms.

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 314. Developmental Learning D

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

Emphasis on integrated curriculum planning to meet the developmental needs of the young learner (preschool-age 8). Students will plan and implement teaching strategies and activities in any early childhood classroom setting. Field experience component required.

Prerequisite: ED 221 or permission of instructor.

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 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 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.

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 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 non-categorical 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 D

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 402. Teaching Mathematics in the Elementary School B

Curriculum, materials, and procedures in teaching mathematics in the elementary school.

1.5 hours credit

ED 403. 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 sciences.

1.5 hours credit

ED 404. Teaching Social Studies in the Elementary School B

Curriculum, materials, and procedures in teaching social studies in the elementary school.

1.5 hours credit

ED 405. Teaching Reading in the Elementary School B

Curriculum, materials and procedures in teaching reading in the elementary school.

1.5 hours credit

ED 406. Teaching Language Arts in the Elementary School B

Curriculum, materials and procedures in teaching language arts in the elementary school.

1.5 hours credit

ED 416. Classroom Organization, Management and Foundations A

Focus on classroom management and organizational methods, legal, and historical, and social foundations of education. Repeated twice.

Corequisite: Professional Year sequence.

1.5 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). Repeated twice.

6 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). Repeated twice.

6 hours credit

ED 430. Student Teaching in the Secondary School (English, Foreign Languages, Mathematics, Science, Social Studies) B

A field assignment to teach in secondary education. Assignments provided by subject area in grades seven 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. Building Home-School Partnerships B

Develops skills in building partnerships with parents, based on the recognition families are increasingly diverse. Emphasis on models and practices that promote parent involvement. Topics include: parent conferences, improving oral and written communication with parents, home visits, barriers to parent involvement.

3 hours credit

ED 442. Integrating Mathematics in the Elementary Curriculum B

Current theory and practice of mathematics instruction across the curriculum using constructivist methods.

Prerequisite: ED 402.

1.5 hours credit

ED 443. Integrating Science in the Elementary Curriculum B

Current theory and practice of integrating science instruction across the curriculum.

Prerequisite: ED 403.

1.5 hours credit

ED 444. Integrating Social Studies in the Elementary Curriculum B

Current theory and practice of social studies instruction across the curriculum using constructivist methods.

Prerequisite: ED 404.

1.5 hours credit

ED 445. Integrating Reading in the Elementary Curriculum B

Current theory and practice of integrating reading instruction across the curriculum.

Prerequisite: ED 405.

1.5 hours credit

ED 446. Integrating Language Arts in the Elementary Curriculum B

Current theory and practice of language arts instruction across the curriculum using constructivist methods.

Prerequisite: ED 406.

1.5 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 supervi-

sion 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.

Prerequisites: Senior standing; permission of instructor, advisor, and director; contact department office prior to registration.

1-3 hours credit

ELECTRONIC PUBLICATION

(interdisciplinary minor only)

278 Fenton Hall
(716) 673-3125

E-mail: Electpub@fredonia.edu

Robert Deming, *Coordinator*

The courses in this minor will help students in any major prepare for the electronic workplace, where there are jobs for people who can use computers on the Internet or World Wide Web to produce reports, newsletters, publicity releases, catalogs, and financial statements for businesses, government offices, and arts organizations, and who can edit manuscripts for publishers by computer.

The minor requires 19 credit hours of course work, including an internship that will result in materials for a job-application portfolio.

Required Courses:

AR 155	2-Dimensional Design	3
BA 240/	Computers and Corporate	3
CM 240	Communication	
BA 350	Internet Arts	3
CM 110	Desktop Presentation	1
EN 368	Public Relations	3
EN 468	Internship	3
An elective is also required, depending on the specific field in which a student wants to work.		3

ENGINEERING (COOPERATIVE)

Office: 116 Houghton Hall
(716) 673-3302

E-mail: Engineer@fredonia.edu

Peter G. Mattocks, *Director*

The Cooperative Engineering program takes its name from the academic cooperative agreements

between SUNY Fredonia and its affiliated engineering schools. The intent is to combine liberal arts and sciences at Fredonia with engineering at another school, thereby maximizing the student's potential as a member of society and as an employer or employee. The agreements facilitate student transfer and mutual recognition of general education requirements. SUNY 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)
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 takes a minimum of 90 credit hours (three years) at SUNY Fredonia in a curriculum, modified specifically for this program, in biology, business administration, chemistry, computer science, economics, English, geology, history, mathematics, mathematics-physics, philosophy, physics, political science, psychology, or sociology. The student then transfers to an affiliated school and completes at least 60 credit hours (two years) in an engineering discipline. When the student completes this five-year option, he/she obtains a baccalaureate from the engineering institution. Provided the student has satisfied Fredonia's remaining requirements at the engineering school, he/she obtains a second baccalaureate; this one from Fredonia according to the curriculum there followed.

It is possible for students who do not wish to major in any one of the specified departments to enter the Interdisciplinary 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.

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 SUNY Fredonia degrees; the 3-3 and 4-2 programs do.

Suggested Minimum

Engineering Core:

Core Program:	Hrs.
CH 115-116 General Chemistry I & II and CH 125-126 (Labs)	8
MA 122-123 University Calculus I, - 223 II, and III	12

MA 224	Differential Equations	3
PH 230-231	University Physics I and II and PH 232-233 (Labs)	8
PH 321-322	Engineering Mechanics I and II	8
EN 100	English Composition	3
One course from Part IB General College Program		3

Strongly recommended are courses in computer programming, Modern Physics (PH 234), and 3 to 6 credit hours of economics.

In addition, Circuit Analysis (PH 323-324) is required for students pursuing careers in Electrical Engineering and is also required by some engineering schools for other areas such as mechanical engineering. This core, coupled with the departmental and general college requirements, forms the basic curriculum for the three-year program at SUNY 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 SUNY 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.

Students should contact the director of the Cooperative Engineering Program for additional details for the following awards:

Herbert P. Carlyon Scholarship
 Cooperative Engineering
 Scholarship Award

In the list of courses below, 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

Engineering-related Courses

PH 200. Engineering Graphics **D**

Introduction to tools, language, and procedures basic to training of an engineering draftsman. Emphasis on drafting techniques, 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 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 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
(716) 673-3125

E-mail: English@fredonia.edu

Robert H. Deming, *Chairperson*

The Department of English offers a broad education in the literature of our own and other times and places, emphasizing critical reading and thoughtful writing. Traditional literary and historical analysis of fiction, poetry, and drama is basic to our discipline, but that study may be extended in many ways. Options include film, folklore, study of the language, journalism, media criticism, pedagogy, creative writing, and public relations.

Our graduates work for journals, publishers, business firms, arts organizations, and schools; they may also go on to graduate programs in English, American Studies, journalism, law, and social work. Some choose to continue for our Master of Arts degree in English or our Master of Science in (English) Education degree.

For the English major, the department offers:

First, a broad exposure to literature and criticism through a core of required courses.

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. Internships in editing, PR, and journalism are also available.

For the English minor, the department offers courses that can easily be organized to complement any major or pre-professional study.

The English department also supervises an interdisciplinary minor in Electronic Publication, helping prepare students to create materials via computer.

The department awards a number of scholarships and prizes recognizing superior achievement:

Fall Awards

- Laura Foster Award
- John and Eleanor Courts Memorial Scholarship
- Crescence Ehmke Graham Scholarship

Spring Awards

- Best Paper by a First Year Student
- Best Paper by an Upper-Class Student
- Outstanding English Graduate Student Award

Requirements for the Bachelor of Arts Degree in English

The major in English requires a minimum of 36 credit hours of courses selected according to the outline given below. 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 credit hours earned in any combination of internships and independent studies may be counted toward the major.

Majors in English must complete at least 75 credit hours outside the major in order to graduate (Composition does not count as part of the major.). Exemptions from this policy must be approved by the chair of the Department of English at the time of the mandatory 75 hour audit.

Program Outline:

I. 16 hours from the following core courses:

A. Required Core

Three of the following four courses: 9

EN 205	Epic and Romance
EN 207	Drama and Film
EN 209	Novels and Tales

EN 211	World Poetry	
<i>Plus:</i>		
EN 311	English Online	1
EN 345	Critical Reading	3
EN 400	Senior Seminar: Advanced Writing	3

B. Portfolio Completion

EN 401	Portfolio Completion	0
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II. Electives: 20 additional credit hours in English department courses (must include one course in a literary period and one course in a major author). Students are encouraged to take no more than 6 elective credit hours at the 200-level.

English Education: Students in English Education must complete the same basic requirements as majors in English, with the following modifications: EN 357 Language, Literacy, and Learning Theory instead of EN 345. EN 450 Seminar for Teachers of English instead of EN 400. EN 250 Literacy and Technology instead of EN 311 English Online. Because English-Education is part of a State Certification Program designed to prepare students to teach English in grades seven through 12, students in this program must take the following courses in lieu of 6 credit hours of electives in English:

EN 355	Literature for Adolescents
EN 356	Teaching Writing in the Secondary School

In addition, these students must also take the required education courses, achieving an average of 2.5. Also, students in all education programs are required to demonstrate competence in a foreign language. This requirement must be satisfied in *any one of the following four ways*: (1) completion of course work at the 116 level at Fredonia, or (2) transferring of two successful college semesters, or (3) scoring at the 50th percentile or higher on the CLEP exam, or (4) completion of three years of high school language with a passing Regents score (passing = 65). See page 48 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 at least a C+ in each English course counted in the major, and an average of at least 2.5 overall. They must complete all course work for the major before their student-teaching semester.

New York State Regents' revisions of programs in Secondary Education may result in changes in the above requirements.

Requirements for Transfer Credit:

The Department of English at Fredonia requires majors in English to complete at Fredonia a minimum of 24 credit hours of courses applied to the major. Thus, students transferring to Fredonia should normally expect no more than 12 credit 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.

As a rule, the department will not accept as equivalents for upper-level courses credits earned at two-year colleges.

Requirements for the Minor in English

The minor in English requires a minimum of 18 credit hours of courses, 12 credit hours of which are in courses numbered 300 or above. EN 100 may not be counted as part of the minor. At least 9 credit hours counted toward the minor must be taken at Fredonia. No more than 3 credit hours earned in internships or independent studies may be counted toward the minor. Students considering a minor in English are assigned departmental advisors, who will aid in the preparation of their programs.

Electronic Publication

For information about Electronic Publication see page 53 or Interdisciplinary Studies, page 82.

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 pages 6 and 53 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 credit hours of academic course work)

In the list of courses below, 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

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

LOWER DIVISION 200-299

EN 204. Survey of English Literature **D**
The study of major texts from origins to the present in British Literature. Will include divergent approaches to texts, the historical development of the literatures, and the relationships between literature and other disciplines.
3 hours credit

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 206. Survey of American Literature **D**
The study of major texts from origins to the present in American Literature. Will include divergent approaches to texts, the historical development of the literatures, and the relationships between literature and other disciplines.
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. Novels and Tales **A**
Study of long and short fiction of several kinds, including myth, fable, and realistic narrative, from a variety of places and times, and their relation to their different cultures.
3 hours credit

EN 211. World Poetry **A**
Study of lyric poetry from different times and places showing similarities and differences in themes and poetic methods.
3 hours credit

EN 214. American Fiction **B**
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 215. English Detective Fiction **B**
A survey of English mystery writers from Sir Arthur Conan Doyle to P.D. James, exploring techniques of significant writers in the genre and the methods of their detectives. A requirement is that students create their own mystery fiction.
3 hours credit

EN 216. Science Fiction **A**
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 250. Literacy and Technology **A**
Designed primarily for secondary and elementary Education majors, this course teaches students to navigate Windows and the World Wide Web, use Microsoft Word and e-mail, construct basic web pages, explore the theoretical and practical implications computer use has on the nature of literacy as well as learning approaches to teaching students to improve their literacy levels through the use of computers. Involves electronic tutoring with students in grades one through 12 and adults involved with Literacy Volunteers.
3 hours credit

EN 260. Introduction to Creative 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, 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, 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 291. The Bible as Literature **A**
Examination of sections of Old and New Testaments as works of literature, history and re-

ligious thought. Emphasis on major themes, motifs, and critical techniques.
3 hours credit

EN 293. Greek and Roman Literature **D**
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 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 course; topic announced in *Course Offerings Bulletin* each semester.
3 hours credit

UPPER DIVISION 300-399

EN 310. Medieval Literature **C**
Study of selected texts representative of the literature flourishing in Western Europe between 600 and 1500, excluding Chaucer.
3 hours credit

EN 311. English Online **A**
To develop in students knowledge of the basic sources of information, their location, as well as how to access and manipulate them. Emphasizes the evaluation and assessment of the quality of the information found, not just the mastery of certain technological skills. English Education students substitute EN 250.
1 hour credit

EN 312. 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 314. Major Women Novelists **C**
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 316. The Early Seventeenth Century** **D**
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** **C**
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** **B**
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** **B**
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** **B**
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 333. Environmental Literature** **B**
Survey of American nature writing, chiefly over the past half century. Focuses on the art of *seeing* natural places. Includes field trips, direct study of nature.
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 335. Modern American Poetry** **C**
Study of American poetry of the first half of the 20th century. Focuses on tradition and innovation, distinctive voices, the cultural and historical context.
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 345. Critical Reading** **A**
Focus on helping students 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 346. History of Literary Criticism** **D**
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** **D**
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 course.
3 hours credit
- EN 349. Feminist Theory** **B**
In-depth critical exploration of selected theories to explain the sources of women's roles in society. A multidisciplinary approach will be employed to account for the social, economic, political, and cultural status of women in contemporary societies. Cross-listed as WS 301.
3 hours credit

- EN 351. Language and Society** **D**
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 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: pre-writing, 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 Learning Theory** **A**
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** **A**
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** **B**
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** **D**
Introduction to techniques appropriate to presentation of opinion and critical commentary in print and electronic media: editorials, political columns, critical reviews of books, films, theatre, art, etc.
Prerequisite: EN 270.
3 hours credit
- EN 368. Introduction to Public Relations** **B**
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 in the new electronic age, 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** **B**
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** **C**
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** **D**
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 391. Romanticism in World Literature** **C**
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** **C**
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** **B**
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 394. Japanese Literature** **B**
Study of selected works from the Japanese culture, emphasizing those that make up their "canon" and which are recognized as having had a significant international influence, especially on the U.S.; this course also examines cultural assumptions in the works and in ourselves, and looks closely at the "problem" of language in translation and cultural contexts.
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 396. Russian Literature** **C**
Intensive reading of important works of Russian fiction to understand each writer's vision of the potentialities, complexities, and essential conditions of human nature, within the intellectual and cultural context perceived or created by the writer. Significant attention to political and cultural history of Russia.
3 hours credit
- EN 397. Introduction to Contemporary Multicultural American Literature** **B**
The course centers around the novels, poems, plays, and essays of contemporary African American, Asian American, Native American, and Hispanic American writers. Key questions explored include whether or not these writers exhibit shared concerns, how they represent identity and difference pertaining to race and ethnicity, and how race

and ethnicity intersect with gender, class, sexuality, and nationality.

3 hours credit

EN 399. Special Topics C

Variable-content course; topic announced in *Course Offerings Bulletin* each semester.

3 hours credit

**UPPER DIVISION
400-499**

EN 400. Senior Seminar: Advanced Writing A

Study of and practice in writing of many kinds, including a significant critical paper, with an emphasis on metacognitive awareness of the writing process and of the student's development as an English major. Portfolio completion is an integral feature of the course.

Prerequisite: EN 401.

3 hours credit

EN 401. Portfolio Completion A

Gives credit for thoughtful completion of all elements of the reflective portfolio except the exit paper.

0 hour 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 C

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 412, 414. Early and Later Shakespeare B

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 D

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 A

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 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 Learn-

ing Center for a minimum of four hours per week.

Prerequisite: permission of instructor.

3 hours credit

EN 456. ESL Tutoring B

Focus on tutoring students whose first language is not English.

Prerequisite: permission of instructor.

1 hour credit

EN 460. Advanced Creative Writing - Poetry B

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.

Prerequisites: 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.

Prerequisites: EN 260, 360 (or equivalent courses from another college), or permission of instructor.

3 hours credit

EN 465. Variable Credit Internships A

Journalism internships. Interns work four hours per week for 1 credit hour.

Prerequisite: permission of instructor.

1-3 hours credit

EN 466. Seminar in Journalism Topics D

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 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 499. Special Topics **C**

A variable-content course on topic announced in *Course Offerings Bulletin* each semester.

3 hours credit

ENVIRONMENTAL SCIENCES

107A Jewett Hall
(716) 673-3819

E-mail: EnvSci@fredonia.edu

David R. Orvos, Coordinator

As the population on our planet grows, greater amounts of resources are consumed - often resulting in a myriad of environmental problems. Opportunities for scientists, engineers, and policy makers with a background in the environmental sciences are growing. Possible careers include management of air and water resources, hazardous waste management, fishery and wildlife biology, and environmental and community planning.

The major in Environmental Sciences integrates the principles of natural sciences that form a foundation for understanding human interaction with the global environment. Environmental sciences are by definition interdisciplinary and broad in nature. In this major, a risk-assessment approach is taken in the study of current topics such as fate and transport of hazardous substances, non point-source pollution, toxicology, and non-native species - with the focus residing on risk as-

essment based environmental action. In the process, students study classical scientific phenomena, culminating with their subsequent applications in mathematical modeling, laboratory work, and field work to environmental topics. Students will draw on the strengths of the biology, chemistry, geosciences, physics, and mathematics programs at Fredonia to provide a true interdisciplinary major. As seniors, students demonstrate their ability to conduct independent work in the environmental sciences through an internship with local industries and municipalities, or through research with a participating faculty advisor.

This is an interdisciplinary model major program; for specific degree requirements unique to interdisciplinary studies, refer to page 82.

Requirements for the Bachelor of Science/Interdisciplinary Studies Major in Environmental Sciences

A. Core Requirements.

1. **Mathematics** (6-8 credit hours)

MA 122/123 University Calculus I and II (recommended) 8

or
 MA 120-121 Survey of Calculus I and II 6

2. **Biology** (15 credit hours)

BI 141-142 Plant Diversity and Ecosystem Biology & Lab 4

BI 144-145 Animal Biology and Evolution & Lab 4

BI 330-331 General Ecology & Lab 4

BI 457 Biostatistics 3

3. **Chemistry** (18 credit hours)

CH 115-125 General Chemistry I & Lab 4

CH 116-126 General Chemistry II & Lab 4

CH 215-225 Organic Chemistry I & Lab 4

CH 317 Analytical Chemistry I 3

CH 473 Environmental Chemistry 3

4. **Geosciences** (16 credit hours)

GS 130 Mineral, Rock and Fossil Identification 1

GS 165 Physical Geology 3

GS 330 Geomorphology 4

GS 370 Structural Geology 4

GS 450 Hydrogeology 4

5. **Environmental Sciences** (13 credit hours)

ES 115 Introduction to Environmental Sciences 3

ES 310 Methods in Environmental Analysis 3

ES 410 Environmental Risk Assessment 3

ES 440 Environmental Sciences Seminar 1

ES 490 Environmental Sciences Practicum 3

B. Recommended Electives: To be chosen during consultation with faculty advisor based on future plans and interests of the student, such as graduate school, industry, government, etc. (26 credit hours).

BI 333 Biochemistry 3

BI 343 Conservation 3

BI 420 Population and Community Ecology 3

CH 216 Organic Chemistry II 3

CH 318 Analytical Chemistry II 3

CH 405 Industrial Chemistry 3

CH 104 Introduction to Microcomputing Software or 3

CH 105 Visual BASIC Programming 3

EC 201 Principles of Macroeconomics 3

EC 202 Principles of Microeconomics 3

GI 201 Geographic Information Systems 3

GS 320 Geochemistry 3

GS 335 Geophysics 4

MA 223 University Calculus III 4

MA 224 Differential Equations 3

PH 230 University Physics I 3

PH 231 University Physics II 3

PS 276 Law and Society 3

PS 277 Introduction to Law 3

PS 387 Environmental Policy 3

In the list of courses below, 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

A - Course offered every semester

B - Course offered every year

C - Course offered every other year

D - Course offered on occasion

ES 115. Introduction to Environmental Science **B**

This course outlines the concepts and approaches used in the study of environmental science. The interdisciplinary nature of the science is emphasized in the discussion of topics such as energy production, consump-

tion and flow, natural resources, pollution, and nutrient and chemical cycling. Quantitative skills are emphasized. Required of environmental sciences majors and minors.

3 hours credit

ES 310. Methods in Environmental C Analysis

Methods common to environmental sciences emphasizing laboratory and field measurement techniques. In the laboratory, wet chemical and electrochemical techniques; methods of trace pollutant analysis; bioassays; BOD measurements, etc., will be studied. Field studies will include classical techniques such as dissolved oxygen and Secchi disk measurements, as well as more recent assessment methods such as terrain conductivity and macroinvertebrate studies. Combination lecture/laboratory.

3 hours credit

ES 410. Environmental Risk C Assessment

Introduction to concepts involved in risk assessment and how they are applied to formulating a human or ecological risk assessment. Modern methods and models describing environmental risk assessment strategies will be emphasized. Topics will include fate and transport processes of pollutants in the environment, data evaluation, air and water quality, human health risk assessment, ecological risk assessment, and hazardous waste remediation. Case studies will be drawn from the contemporary literature and students will formulate a risk assessment as part of a team.

3 hours credit

ES 440. Environmental Sciences B Seminar

Each student will present a seminar on a current topic of environmental sciences research during the spring semester of their senior year. Emphasis on detailed knowledge of the subject matter, techniques for searching the professional literature, and procedures for the preparation and presentation of a professional seminar.

1 hour credit

ES 490. Environmental Sciences A Practicum

Independent research, independent study, or internship under the direction of a participating faculty advisor.

3 hours credit

FOREIGN LANGUAGES AND LITERATURES

Office: 2111 Fenton Hall
(716) 673-3380

E-mail: Forlang@fredonia.edu

French@fredonia.edu

Spanish@fredonia.edu

Kenneth G. Lucey, 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, Italian or Spanish. A major may be earned in French or Spanish, or a double major in these two languages. Other individually designed programs of combination majors are encouraged. See the chairperson for assistance.

Majors, minors and foreign language concentration students 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. They are available to any SUNY Fredonia student in virtually every department who wishes to avail themselves of the opportunity to pursue their studies at foreign institutions of distinction.

The department offers an internship through the Upward Bound Program, sponsors the French Club and the Spanish Club, and has affiliation with three national honor societies: *Pi Delta Phi* in French, *Sigma Delta Pi* in Spanish, and *Al-*

pha Mu Gamma for meritorious work in any language offered.

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, commitment to the field of study, 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.

Requirements for the Bachelor of Arts Degree in French

36 credit 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 credit hours of 300 or 400 level French courses.	12
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Requirements for the Bachelor of Arts Degree in Spanish

36 credit 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 325 Survey Span. - Amer. Literature II	3
LS 423 Senior Seminar	3
LS 424 Spanish Creative Writing	3
Plus 12 additional credit hours of 300 or 400 level Spanish courses.	12
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Elementary and Early Childhood Education majors may earn a concentration in foreign languages. Consult the School of Education's catalog description or the course requirements of these programs.

Students who desire to teach French or Spanish in the secondary schools may obtain provisional cer-

tification 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 as follows:

Students wishing to enter the program must inform the chair by October 15 of the year before their participation in FL Methodology. The department will recommend those students who demonstrate superior competency (a minimum GPA of "B" in their major language courses), responsibility, dependability, maturity, and a clear grasp of the realities of the teaching profession. The coordinator will decide on a student teaching assignment for each student favorably recommended. FL Methodology will be taken in the semester immediately preceding student teaching. Admission is limited to those students planning to follow the course with a semester of student teaching. In order to proceed in this manner, students must earn a minimum grade of "C+" in FL Methodology. During the first weeks of student teaching, students will enter into an individually designed written agreement with the college supervisor and cooperating teacher, concerning their work in the assignment.

Requirements for the 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 credit hours beyond the 116-level chosen under advisement and with departmental approval.

Cooperative Agriculture Program in Foreign Languages

Under this program a student majors either in French or Spanish at SUNY 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 6.

Requirements for Transfer Credit

For a major, a limit of 12 transfer credits may be counted towards those required, i.e., a minimum of 24 hours must be taken in the department at SUNY Fredonia.

For a minor, a limit of 9 transfer credits may be counted toward the 18 required, i.e., a minimum of 9 credit hours must be taken in the department at SUNY Fredonia.

Notes:

1. Ordinarily one year of high school preparation in 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.

In the list of courses below, 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

Foreign Culture Courses (taught in English)

FL 322. French Civilization and Culture **B**

Introduction to the political development of France and issues of community, family, gender and class in determining French national identity. Topics include Gothic cathedrals, Joan of Arc, the chateaux of the Loire, the Sun King and Versailles, Le Louvre, the age of reason, Napoleon and the establishment of the Republic.

3 hours credit

FL 327. Sex and Magic in Latin American Literature **D**

(Spanish majors will read the Spanish originals). A study of 20th century Spanish-American thought and culture through reading and discussing works of fiction and popular song lyrics, and interviews with writers. Some of the central issues will involve attitudes toward sex and sexual roles as well as the peculiarly Latin American brand of literature known as Magical Realism.

3 hours credit

FL 328. Don Juan and Don Quixote **D**

(Spanish majors will work with original texts). A defining characteristic of Spanish literature is the creation of supremely powerful personalities. The purpose of the course is to introduce the student to the development of two of these archetypes: Don Juan and Don Quixote. Discussion of the chronological development of these figures from the earliest representation to the present day, and discussion of those aspects which mark the works to be studied as products of particular cultures at specific historical moments.

3 hours credit

FL 371. Canadian Writers **D**

An introduction to some of Canada's most significant writers, both anglophone and francophone. Although this is primarily a literature course, considerable attention will be devoted to Canadian history and politics, and to the notion of the "Canadian identity."

3 hours credit

FL 378. Canada Today **B**

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

FL 388. Spanish Civilization and Culture **D**

A comprehensive introduction to aspects of Spanish civilization and culture: geography, history, social customs, political movements, literature and art. In English.

3 hours credit

FL 398. The Holocaust in Literature **D**

An interdisciplinary attempt to make sense of the Holocaust through a variety of literary, philosophical, religious, historical, and allegorical formulations.

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 405. French Women Writers **B**

An evaluation of the contributions of French women writers to the social, economic and political institutions which form the basis of Western philosophic tradition.

3 hours credit

FL 406. Women in French Literature **B**

An examination of how texts about women written by Francophone males have through history described women, defined their lives and destinies in keeping with the needs and requirements of these writers.

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 in 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 319-320. 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 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.

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 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.

Prerequisites: 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 **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 115-116. 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 **A**

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 **D**

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 **D**

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 **D**

Literary background and analysis of selected Lieder. In English.

Corequisite: MU 387.

1 hour credit

ITALIAN**LI 115-116. Elementary Italian I, II** **A**

LI 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.

LI 116: Continuation of LI 115. Further introduction to fundamental speech patterns. For students with one semester of college-level Italian or equivalent. Stress on listening comprehension, oral ability, reading, and writing skills.

3 hours credit each semester

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**

LS 115 : 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 315. Introduction to Hispanic Literature **B**

Readings from modern Spanish and Spanish American novels, drama, poetry, and essays. Oral and written reports.

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 325. Survey of Spanish-American Literature **B**

Principal literary movements in Spanish America: Colonial period with emphasis on post-Independence literature .

Prerequisite: LS 315 or equivalent.

3 hours credit each semester

LS 328. Don Juan and Don Quixote **D**

A defining characteristic of Spanish literature is the creation of supremely powerful personalities. The purpose of the course is to introduce the student to the development of two of these archetypes: Don Juan and Don Quixote. Discussion of the chronological development of these figures from the earliest representation to the present day, and discussion of those aspects which mark the works to be studied as products of particular cultures at specific historical moments.

Prerequisite: LS 216 or equivalent.

3 hours credit

LS 388. Spanish Civilization and Culture **D**

A comprehensive introduction to aspects of Spanish civilization and culture: geography, history, social customs, political movements, literature and art.

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 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. Spanish Creative Writing **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, page 62)

FRESHMAN SEMINAR

810 Maytum Hall
(716) 673-3336

E-mail: faulk@fredonia.edu

Leonard E. Faulk Jr., Associate Vice President for Academic Affairs and Graduate Dean

Freshman Seminar is a one-credit course that is intended to help incoming freshmen succeed at SUNY Fredonia and become lifelong learners. The course introduces first year students to the academic and social aspects of college life, and is designed to empower students to become successful learners at the collegiate level. Freshman Seminar provides both an introduction to the nature of college education and a general orientation to the functions and resources of the college as a whole. It thus helps first year students adjust to the college, develop a better understanding of the learning process, and acquire basic academic survival skills.

SS 100. Freshman Seminar **B**

Open to freshman students and offered in the fall semester.

1 hour credit

GEOGRAPHIC INFORMATION SYSTEMS

(interdisciplinary minor only)

E378 Thompson Hall
(716) 673-3884

Ann K. Deakin, Coordinator

212 Fenton Hall
(716) 673-3193

Khalid J. Siddiqui, Coordinator

E-mail: GIS@fredonia.edu

The objective of the Geographic Information Systems minor is to provide an interdisciplinary educational experience that prepares undergraduate students to use Geographic Information Systems (GIS) within their chosen fields of study. A GIS is a computer-based system, comprised of both hardware and software, that enables the collection, integration, analysis, and graphic display of geographically referenced data. It is estimated that as much

as 85 percent of a government agency's data is geographic, including, at a minimum, street addresses, political boundaries, postal codes, and latitude and longitude coordinates. Private sector organizations also work with an overwhelming amount of similar kinds of data in their day-to-day operations. With so much geographically-based information, GIS has become essential to the effective operation of both public and private organizations.

The minor will prepare students for careers or graduate study in virtually all areas of the public or private sector where GIS is increasingly in use and critical for efficient management, thorough policy analysis, and cost-effective decision making.

The curriculum in this minor is multidisciplinary in content and interdisciplinary in approach, drawing on a variety of disciplines and departments.

Students are required to take 25 credit hours (a minimum of 15 credit hours outside of their major) from among the following courses:

A. GIS Core Courses: 13 credit hours required

CS 105	Visual BASIC Programming
CS 120	Computer Science Overview
GI 201	Geographic Information Systems I
GI 301	Geographic Information Systems II

B. GIS Elective Courses: 6 credit hours required

Two courses from the following:

GI 350	Remote Sensing and Image Processing
GI 360	Mapping the Social World
GI 370	Earth Systems Science
GI 401	Special Topics in GIS
GS 482	Cartography

C. Interdisciplinary Elective: 3-4 credit hours required

One course required from the following:

BI 330	Introduction to Ecology
BA 364	Management Information Systems I
CS 121	Computer Science I
CS 341	Data Structures

CS 425	Software Engineering
CS 451	Introduction to Files and Databases
EC 330	Public Sector Economics
ES 410	Environmental Risk Assessment
GS 330	Geomorphology
MA 231	Linear Algebra
PS 352	Political Geography
PS 380	Policy Evaluation
PS 381	Cities and Citizens
PS 387	Environmental Policy
PY 373	Human Factors
SO 343	Health Systems and Policies

D. Practicum: 3 credit hours required

GI 450	Directed Study
GI 480	Independent Study
GI 490	Internship

In the list of courses below, 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

GI 201. Geographic Information Systems I **B**

The essential theory, components, and applications of Geographic Information Systems, including data structures, database management, spatial analysis, and automated mapping technology. The lab work will introduce students to commercially available Geographic Information Systems software.
Prerequisite: Experience using Windows-based software.

3 hours credit

GI 301. Geographic Information Systems II **B**

The expanded theory, components and applications of Geographic Information Systems. This course builds on topics presented in GI 201 Geographic Information Systems I, and introduces students to additional commercially available Geographic Information Systems software.
Prerequisite: GI 201.

3 hours credit

GI 350. Remote Sensing and Image Processing **C**

Study of the conditions and/or state of remotely sensed objects and scenes. Application to many "real world" problems including

harvest prediction, containment migration, forest mapping, resource delivery, and extra-terrestrial exploration. Image processing, pattern recognition, and geographic information systems (GIS).

Prerequisite: CS 121.

3 hours credit

GI 360. Mapping the Social World C

Representation and analysis of the spatial structure of the social world using geographic information systems (GIS). Exploration of how such technology is used to exploit and commercialize the social world in ways that serve the interests of those who control the technology and how it could provide opportunities to redraw boundaries and identify new social spaces.

Prerequisite: GI 301 or permission of instructor, junior standing.

3 hours credit

GI 370. Earth Systems Science C

The synthesis and development of a holistic model by which disciplinary processes and actions lead to synergistic interdisciplinary components. Topics include, earth system history; remote sensing; biosphere; atmosphere; economics; sustainability and natural resources; earth energy budget; El Niño; hydrological cycle; biogeochemistry; human environmental interactions; health and climate changes; soil processes; land use/land cover changes.

Prerequisite: GI 201 and junior standing.

3 hours credit

GI 401. Special Topics in GIS D

In-depth examination of GIS topics introduced in GI 201 or GI 301. May be taken more than once as topics vary.

Prerequisite: GI 301.

3 hours credit

GI 450. Directed Study A

Participation in GIS-related faculty research.

Prerequisite: Permission of instructor.

3 hours credit

GI 460. Teaching Assistant A

Students have the opportunity to assist the instructor in the laboratory components of GI 201 and GI 301.

Prerequisite: Permission of the instructor.

1-3 hours credit

GI 480. Independent Study A

Individualized study under the close supervision of a faculty member. Students should have specific topics or projects in mind before approaching an instructor.

Prerequisite: Permission of the instructor.

3 hours credit

GI 490. Internship A

Provides opportunities for testing concepts and applications presented in the classroom.

Interns have found opportunities in both the public and private sector.

Prerequisite: Permission of the instructor.

3-6 hours credit

GEOSCIENCES

Office: 106 Houghton Hall

(716) 673-3303

E-mail: Geo@fredonia.edu

John L. Berkley, 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). Students in all education programs are required to demonstrate competence in a foreign language. This requirement may be satisfied in any one of the following ways: (1) completion of course work at the 116 level at Fredonia, or (2) transferring of two successful college semesters, or (3) scoring at the 50th percentile or higher on the CLEP exam, or (4) completion of three years of high school language with a passing

Regents score (passing = 65). Students are screened by the department chairperson before entering ED 419.

Cooperative Engineering and Agriculture: The Department of Geosciences participates in the Cooperative Agriculture and the Cooperative Engineering Programs described on pages 6 and 53, respectively.

Students are encouraged to participate in the activities of the Geology Club and Geophysics Society.

The department awards textbook scholarships for academic achievement each semester and annually presents the MacDiarmid Award to the department's outstanding graduating senior, the Paul D. Willette Scholarship to the outstanding junior, the Walther M. Barnard Geosciences Scholarship to the outstanding sophomore, and the Mark D. and April Hoefner Orgren Scholarship to the outstanding freshman.

Explanation of geosciences (GS) course numbers: 100-level courses are introductory courses without prerequisites; 200-level courses are general service courses with prerequisites; 300- and 400-level courses include required and 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 Bachelor of Science Degree in Geology

Core Program (40 credit hours in geosciences; 24 credit 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 310	Field Geology	3
GS 340	Mineralogy	4

GS 350	Petrology	4
GS 360	Seminar in Geosciences	1
GS 370	Structural Geology	4
GS 3XX/4XX	Formal courses (excludes internship, lab supervision, and more than 2 hours of directed study; may include up to 4 credit hours in Geographic Information Systems courses)	16
MA 122-123	University Calculus I & II	8
CH 115-116	General Chemistry I & II and CH 125-126 (Labs)	8
PH 230-231	University Physics I & II and PH 232-233 (Labs)	8
A course in computer science, as part of the General College Program (GCP)		

Requirements for the Bachelor of Science Degree in Geochemistry

Core Program (24 to 25 credit hours in geosciences; 30 to 32 credit hours in chemistry; 16 credit 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 320	Geochemistry	3
GS 340	Mineralogy	4
GS 350	Petrology	4
GS 360	Seminar in Geosciences or	1
H 495 and CH 496	Seminar: Recent Advances in Chemistry	2
GS 3XX/4XX	Geology electives	8
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	University Physics I & II and PH 232-233 (Labs)	8
MA 122-123	University Calculus I & II	8
A course in scientific writing, as part of the GCP (completion of CH 225, 226, and 290 Introduction to Research fulfills requirement).		
A course in computer science, as part of the GCP.		

Requirements for the Bachelor of Science Degree in Geophysics

Core Program (24 to 25 credit hours in geosciences; 17 to 19 credit hours in physics; 26 credit 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 360	Seminar in Geosciences or	1
PH 400	Undergraduate Seminar	
GS 370	Structural Geology	4
GS XXX	Geology elective	4
PH 230-231	University Physics I & II and PH 232-233 (Labs)	8
PH 321	Engineering Mechanics I or	
PH 330	Thermodynamics 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 122-123-223	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
GS 330 Geomorphology is strongly recommended.		

Requirements for the Bachelor of Arts Degree in Earth Sciences

Core Program (34 or 35 credit hours in geosciences; 22 to 24 credit hours in related disciplines):

GS 120	Map Reading and Interpretation (Lab)	1
GS 130	Mineral, Rock, and Fossil Identification (Lab)	1
Any two of the following:		
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 360	Seminar in Geosciences	1
GS 370	Structural Geology	4

GS XXX	Any Geology elective	3 or 4
GS 3XX/4XX	Two formal Geology electives	8
CH 115-116	General Chemistry I & II and CH 125-126 (Labs)	8
PH 230-231	University Physics I & II and PH 232-233 (Labs)	8
PH 121-122	College Physics I & II and PH 123-124 (Labs)	8
MA elective		3 or 4
MA any course in calculus		3 or 4
A course in computer science, as part of the GCP.		

Requirements for the Bachelor of Science Degree in Earth Sciences

Core Program (29 credit hours in geosciences; 30 credit hours in education; 22 to 24 credit 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 165	Physical Geology	3
GS 180	Weather and Climate	3
GS 210	Historical Geology	3
GS 215	Minerals and Rocks	4
Any two GS as advised	300/400 level courses	8
ED 101	First 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	University Physics I & II and PH 232-233 (Labs)	8
PH 121-122	College Physics I & II and PH 123-124 (Labs)	8
MA elective		3 or 4
MA any course in calculus		3 or 4
A course in scientific writing, as part of the CP (may be fulfilled by taking any two of GS 330, 335, 365, and 370, in addition to 215).		
A course in computer science, as part of the GCP.		

Students in all education programs are required to demonstrate competence in a foreign language. This requirement may be satisfied in any one of the following ways: (1) completion of course work at the 116 level at Fredonia, or (2) transferring of two successful college semesters, or (3) scoring at the 50

percentile or higher on the CLEP exam, or (4) completion of three years of high school language with a passing score on the Regents Exam (passing = 65).

Requirements for the Minor in Geological Sciences

Twenty-four credit hours in geosciences, including GS 120, 130, 165, 210, and four 4-credit hour courses, as advised, from the 200-300-400 levels.

Requirements for the Minor in Earth Sciences

Twenty-five credit hours in geosciences, including GS 120, 130, 150, 160, 165, 180, 210, 215, and one 4-hour course from the 300-400 levels.

Geographic Information Systems

This program is sponsored jointly by the departments of Geosciences and Political Science. Interested persons should refer to page 66 for a description of the minor.

In the list of courses below, 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

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 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.
Prerequisite or corequisite: GS 100 or GS 165.
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 speci-

mens. Supplements GS 165, but may be taken independently.
Prerequisite or corequisite: GS 100 or GS 165.
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.
140 Catastrophic Weather
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
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. 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 D
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 210. Historical Geology **B**

Physical history of the earth in relationship to orderly development of life throughout geological time. Lectures.

Prerequisite: GS 165 (or GS 100 with minimum grade of B).

3 hours credit

GS 215. Minerals and Rocks **C**

Theory, geological occurrence, and identification of the common minerals and rocks. A well-written report, critiqued and returned for revision, is required. Laboratory work includes a brief introduction to the petrographic microscope, but mostly emphasizes hand specimen identification. Two-day field trip to the Thousand Islands/Laurentian lowlands of New York State.

Prerequisite: GS 100 or GS 165;

Pre- or corequisite: GS 130.

4 hours credit

GS 300. Crystallography **D**

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 of geochemistry, including the elements; isotope geology; thermodynamics; water chemistry; crystal chemistry; organic geochemistry; geochemistry of sedimentary, igneous, and metamorphic rocks.

Prerequisites: GS 340 and one year of chemistry or permission of department.

3 hours credit

GS 330. Geomorphology **B**

Study of 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. Library research leads to a written term paper.

Prerequisite: GS 165.

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 lead to several written papers.

Prerequisite: GS 165.

4 hours credit

GS 340. Mineralogy **C**

An introduction to descriptive crystallography and to chemical, physical, determinative and descriptive mineralogy. Crystal symmetry, classification and morphology. Crystal chemistry, physical properties, geologic occurrence, significance and characteristic properties of minerals. Lectures and laboratory supplemented with one field trip.

Prerequisite: GS 165;

Pre- or corequisite: CH 115.

4 hours credit

GS 345. Paleontology **C**

Principles of paleontology; biologic relationships of fossil organisms, particularly ancient invertebrates. Emphasizes evolutionary principles and trends. Field work supplements lecture and laboratory.

Pre- or corequisite: GS 210.

4 hours credit

GS 350. Petrology **C**

Lecture emphasis on problems and hypotheses involved with the origin of rocks. Laboratory stresses use of the petrographic microscope for identification, description, and analysis of rock materials. A well-written research paper, which may include computer, lab, and library research, is required. Course includes a weekend trip to study classic rock terrains in the Adirondack Mountains.

Prerequisite: GS 340.

4 hours credit

GS 360. Seminar in Geosciences **A**

Individual student presentation of two 20-minute seminars pertaining to the geology and geologic evolution of different provinces of the North American continent. Students are required to prepare an abstract and bibliography of their presentations.

1 hour 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. The writing and peer review of abstracts are stressed in the course. In addition, students are required to submit a written report describing their results of a field stratigraphic study of the Devonian section of western New York.

Prerequisites: GS 165, 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. Students are required to complete a paper on some aspect of structural geology; part of the revision processes will include peer review.

Prerequisite: GS 165;

Pre- or corequisite: 120.

4 hours credit

GS 410. Directed Study **A**

Independent study and research in areas beyond formal courses.

Prerequisites: permission of department.

1-3 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. Lectures and laboratory.

Prerequisite: GS 165.

4 hours credit

GS 445. Geosciences Internship **A**

Approved work-training experience with state or federal agency, museum, or industrial firm.

Prerequisites: permission of department.

1-15 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 groundwater. Groundwater is emphasized. Lectures supplemented by field work, lab measurements, and computer modeling.

Prerequisite: GS 165, GS 330.

4 hours credit

GS 455. Laboratory Supervision in Geosciences **A**

Students serve as laboratory assistants under supervision of faculty member. 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 hour credit

GS 480-489. Special Topics in Geosciences **A**

Special areas of geosciences not covered by regular courses.

Prerequisite: permission of department.

1-4 hours credit each semester

GERONTOLOGY

(interdisciplinary minor only)

W363 Thompson Hall
(716) 673-3205

E-mail: Gerontol@fredonia.edu

David Larson, *Coordinator*

Gerontology studies the impact of social and cultural factors in the aging process and examines the status of older people in society. The Gerontology minor 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.

Depending on the choice of courses in Part D below, 23 to 24 credit hours are required; it is recommended that no more than 9 credit hours 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 credit hours

SO 210 Introduction to Gerontology

SO 479 Social Gerontology Intern

B. *Perspectives on Aging:*

6 credit hours required

PY 366 Psychology of Adulthood and Aging

SO 337 Sociology of Aging

SO 338 Sociology of Death and Dying

SO 339 Aging Policies and Programs

PY 289 Lifespan Human Development

C. *Health and Health Care:*

3 credit hours required

SO 340 Medical Sociology

SO 343 Health Care Systems

SO 346 Mental Health and Society

D. *Working with the Elderly:*

5 credit hours required

SO 218 Introduction to Social Work

PY 355 Group Dynamics

PY 447 Introduction to Counseling

SH 150 Introduction to Communicative Disorders

SH 208 Geriatric Communication Disorders

E. *Administration and Analysis Skills:*

3 credit hours required

PS 311 Fundamentals of Public Administration

BA 321 Management and Organizational Behavior

SO 325 Complex Organizations

HEALTH SERVICES ADMINISTRATION

Office: W375 Thompson Hall
(716) 673-4612

E-mail: Hsa@fredonia.edu

Jere A. Wysong, *Director*

As the health care sector has expanded and changed over the last 10 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 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, managed care organizations, or health insurance plans, or in skilled nursing facilities, hospices, home health agencies, rehabilitation programs, and other private and public programs.

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, and sociology, but also include a wide variety of other disciplines. Advisement of student majors and administration of the program are

provided by the Health Services Administration Council, which includes faculty who are currently involved in research, consulting, and public service in the health services sector.

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, managed care 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 student's major projects, and a final paper. Internships are usually completed during the summer following the student's junior year.

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 21-credit hour minor in Health Services Administration.

The Health Administration Advisory Panel

The curriculum and internships are reviewed 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 Services Administration Association

Many majors are also involved in a student-directed organization that supports and supplements the academic program. The Health Services Administration Association 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.

Requirements for the Bachelor of Science Degree

Major Requirements: Degree candidates in Health Services Administration will need to complete a minimum of 45 credit hours of course work, including 30 credit hours of required core courses. The remaining 15 credit hours should include 6 credit hours from courses in Health Services Policy, and 9 credit hours from one of the six 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 9 credit hours of course prerequisites including: Microeconomics, Visual BASIC Programming or Introduction to Microcomputer Software, 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: 30 credit hours

AC 201	Accounting	3
BA 315	Principles of Business Finance	3
BA 319	Health Care Finance	3
EC 360	Health Care Economics	3
HA 300	Health Services Management	3

HA 377	Health Administration Internship	6
SO 325	Complex Organizations	3
SO 343	Health Systems and Policy	3
Statistics: BA 200, PS 200, PY 200, or SO 200		3

Health Policy Electives: 6 credit hours from:

AN 301/ SO 312	Plagues and Peoples	3
BI 345	Emerging Diseases	3
BI 360	Aids and STDs	3
HA 310	Health Law	3
HE 215	Personal and Community Health	3
PL 335	Medical Ethics	3
PY 247	Health Psychology	3
SO 340	Medical Sociology	3
SO 345	Women, Health, and Society	3

Area of Concentration: 9 credit hours from one of six areas

Financial Management

AC 301	Intermediate Accounting	3
AC 303	Cost Accounting*	3
AC 402	Governmental Accounting	3
BA 364	Management Information Systems I	3
PS 380	Policy Evaluation	3

Human Resource 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
PY 373	Human Factors	3

Marketing

BA 325	Principles of Marketing*	3
BA 340	Marketing Research	3
BA 411	Marketing Management	3
BA 342	Consumer Behavior	3
BA 445	Integrated Marketing Communication	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 339	Policy for Aging	3
SO 346	Mental Health and Society	3

Alcoholism and Drug Abuse

HE 343	Drugs and Behavior	3
PY 247	Health Psychology	3
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

Management Information Systems

BA 364	Management Information Systems	3
BA 464	Management Information Systems II	3
BA 465	Management Information Systems III	3
CS 107	Internet and Web Programming	3
GI 201	Geographic Information Systems I	3
GI 301	Geographic Information Systems II	3
SO 350	Seminar in Cybersociology/Anthropology	3

General Electives: 40 hours chosen from the General College Program

Requirements for the Minor in Health Services Administration

The objective of this interdisciplinary minor 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 are required to take 21 credit hours from among the following courses:

Requirements:

A. Health Policy Electives: 6 credit hours

Two courses required from the following:

AN 301/ SO 312	Plagues and Peoples
BI 343	Emerging Diseases
BI 360	Aids and STDs
HA 310	Health Care Law

- HE 215 Personal and Community Health
 PY 247 Health Psychology
 PL 335 Medical Ethics
 SO 340 Medical Sociology
 SO 345 Women, Health and Society

B. Administration of Services: 6 credit hours

Two courses required from the following:

- AC 201 Principles of Accounting I
 BA 310 Legal Environment of Business
 BA 321 Management and Organizational Behavior
 PY 347 Industrial/Organizational Psychology
 PS 311 Fundamentals of Public Administration
 PS 380 Policy Evaluation
 SO 325 Complex Organizations

C. Health Services Planning and Administration

- HA 300 Health Services Management

D. Areas of Special Interest and Application:

Two courses required from the following:

- ED 355 Introduction to Learning and Behavioral Disorders
 ED 360 Developmental Disabilities
 PY 356 Abnormal Psychology
 PY 447 Introduction to Counseling
 SO 210 Introduction to Gerontology
 SO 311 Sociology of Addiction
 SO 337 Sociology of Aging
 SO 338 Sociology of Death and Dying
 SO 346 Mental Health and Society
 SO 477 Health Services Internship

Prerequisites: Students who expect to elect this minor should include the appropriate pre-requisites 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.

In the list of courses below, 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

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 on reports from the on-site supervisor, daily logs, written material from the student's project(s) and a final paper.

6 hours credit

HEALTH, WELLNESS AND RECREATION

Office: 116 Dods Hall
 (716) 673-3101

E-mail: Health@fredonia.edu

Charles C. Davis, Chairperson

The Department of Health, Wellness and Recreation offers courses that allow students to complete a program to meet the New York State Mandate to coach in elementary and secondary schools and community recreation programs. Physical education courses are offered to enhance the quality of life of students

and to develop skills in physical activities that can be continued for a lifetime. Health enhancement courses such as stress management encourage students to take an active responsibility in managing their health.

A student may elect to enroll in 100-level physical education courses with a *maximum of 4 credit hours to be used as elective credit* toward a degree. Activity courses at the 100-level may be repeated for credit by students within the maximum 4 hours of elective credits. Students may participate in additional 100-level courses over the allowable maximum (4) elective credits. However, all 100-level courses after the first 4 credits will be in excess of the normal 120 hours required for a degree.

Physical Education 100 level courses:

Individual and Dual Activities:

PE 102	Learn To Swim	1
PE 103	Intermediate Swimming	1
PE 104	Advanced Swimming	1
PE 105	Swimming and Conditioning	1
PE 106	Lifeguard Training	2
PE 107	WSI	2
PE 108	Basic Scuba	2
PE 109	Badminton-Basic	1
PE 111	Badminton-Intermediate	1
PE 116	Golf-Basic	1
PE 117	Running and Conditioning	1
PE 120	Ice Skating-Basic	1
PE 121	Ice Skating-Intermediate	1
PE 124	Basic Aerobics	2
PE 125	Step Aerobics	2
PE 126	Body Sculpting (women)	1
PE 128	Racquetball-Basic	1
PE 129	Racquetball-Intermediate	1
PE 131	Self-Defense	1
PE 132	Skiing	1
PE 134	Tennis-Basic	1
PE 135	Tennis-Intermediate	1
PE 138	Volleyball	1
PE 139	Weight Training	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 activity.

Intermediate or Advanced: For students who have developed the basic skills and knowledge of the sport. Emphasis in advanced classes is placed on the develop-

ment of advanced skills and strategies.

In the list of courses below, 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

New York State Coaching Mandate: Students wishing to coach in New York State public schools and/or recreational programs are advised to enroll in the following courses: PE 210, PE 311, PE 315, and PE 321.

PE 210. Philosophy, Principles and Organization of Interscholastic Athletics in Education **B**

A review of basic philosophy and principles of athletics and their general relationship to the elementary through 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 mandates for interscholastic coaching.

3 hours credit

PE 311. 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 mandate for interscholastic coaching.

Prerequisite: PY 129.

2 hours credit

PE 315. Prevention and Care of Athletic Injuries **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 mandate for interscholastic coaching.

Prerequisite: HE 115 or First Aid Card or permission of instructor.

3 hours credit

PE 321. 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 mandates for interscholastic coaching, the student is expected to have completed all other courses in the mandate before enrolling in PE

321 or attain the permission of the instructor.

3 hours credit

Requirements for the Minor in Athletic Coaching

New York State established an athletic coaching mandate that requires all Education majors and non-teaching professionals to meet established criteria to qualify to coach in elementary and secondary schools and in youth recreation programs. Students at Fredonia can organize 18 credit hours of electives needed for graduation into one of three program sequences that will allow them to meet the state mandate for strenuous/contact activities and non-strenuous/non-contact activities.

A non-Education major may be employed as a temporary coach by obtaining a Temporary Coaching License from the Division of Teacher Education and Certification and meeting all the requirements listed in its brochure by enrolling in and completing the New York State-approved coaching program offered at Fredonia.

Upon the initial course completion, the State Education Department will issue a certificate of completion for the course material. Standard First Aid must then be renewed every three years and CPR must be renewed annually. Coaches who have allowed their certificates to expire must re-enroll in the entire initial course or challenge out the physical and written material in order to obtain a current certificate.

Options: Students may meet the New York State Mandate by completing one of the following three options:

1. The Fredonia Athletic Coaching minor (18 credit hours). This includes core courses (15 credit hours) and elective courses (3 credit hours).

2. The State Mandate (12 credit hours) for strenuous/contact sports. Students should register for PE 115, 210, 311, 315 and 321.

3. The State Mandate for non-strenuous/non-contact sports (bowling, golf, archery). Students should register for PE 115 and PE 210. Additional registration in a non-contact activity course such as bowling and/or golf is highly recommended.

Core Program: 15 credit hours to be distributed as follows:

HE 115	First Aid Skills and Knowledge	2
PE 210	Philosophy, Principles and Organization of Interscholastic Athletics in Education	3
PE 311	The Psychology of Coaching	2
PE 315	Prevention and Care of Athletic Injury	3
PE 321	Coaching Techniques	2
ED 349	Educational Psychology	3

Electives: Select at least 3 credit hours (under advisement) from course offerings such as:

PY 237	Sport Psychology*
HE 300	Education in Drugs, Alcohol and Tobacco
HE 302	Stress Management
HE 303	Fitness and Nutrition
PE 317	Advanced Athletic Injury Care
PE 318	Athletic Training Internship
SO 335	Sociology of Sport*
PE 351	Coaching Sports**
PE 399	Independent Readings
PE 499	Independent Study

* Prerequisite: PY 129

** Distance Learning course. Students should see their advisor to register.

HEALTH COURSES

(HE 300 Education in Drugs, Alcohol and Tobacco, is required for Elementary Education majors desiring New York State teacher certification.)

HE 115. First Aid Skills and Knowledge **B**

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. This course meets the coaching first aid requirements of the New York State Coaching Mandate.

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 215. Personal and Community Health **B**

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.

1 hour credit

HE 302. Stress Management **A**

Identifies the mechanisms that generate the human stress response and their physical and psychological effects on the body and mind. The course also introduces the student to developing personal strategies for effective stress management.

1 hour credit

HE 303. Fitness and Nutrition **B**

The development of knowledge and skills necessary to become personally responsible for fitness and nutrition. Contents will be used as a basis for assessment of personal fitness and nutritional status and necessary personal behavior modification. Investigation of basic fitness and nutritional facts, energy balance, obesity, dieting, nutrition as related to disease, for personal goal setting.

2 hours credit

HE 343. Drugs and Behavior **A**

The course provides students with a basic understanding of the effects of legal and illegal drugs on physiological and psychological functioning, and how drugs influence personal and social behavior.

3 hours credit

HE 386. Wellness and Health Promotion **A**

The course emphasizes wellness as a positive approach to health promotion. The course explores ways of establishing effective health strategies that affect the physical, emotional and social self, use the mind constructively, channel stress energies positively, express emotions effectively, and enable the individual to interact with others.

3 hours credit

HISTORY

Office: E332 Thompson Hall
(716) 673-3277

E-mail: History@fredonia.edu
William Graebner, Chairperson

The history department offers a broad-based and world-wide curriculum, with an emphasis on critical thinking and writing skills. History majors study the complexities of the human experience, deepen their knowledge of their own society and its past, explore other cultures and societies, and prepare for life in a multicultural and international world community. The History major also prepares the student for a variety of career opportunities, including law (law schools take a third of their candidates from History majors), government at all levels, editing and book publishing, journalism, communications and media, college and university teaching (with an advanced degree), and public history venues such as historical sites, museums and libraries. Many jobs in business and industry are open to liberal arts graduates with training in history. The Social Studies major prepares students to teach in middle school and high school.

Internships: The history department facilitates internships at local museums, in Washington, D.C., Albany, N.Y., and within the college itself. The department also recommends international education and experiences.

Awards and Honors

The Chazanof Award recognizes student work in local history. The Gallagher Scholarship is awarded to a minority student pursuing a career in education. The MacPhee Award is given to a promising History or So-

cial Studies major who has attained junior rank. The department also recognizes an Outstanding History major and an Outstanding History student. *Phi Alpha Theta*, the history honor society, recognizes academic excellence (see page 163).

Requirements for the Bachelor of Arts Degree in History

Thirty-nine credit hours in history; no more than 21 credit hours may be from 100-200 level courses. Before taking 300-level courses, students should have completed HY 201. Selected students will have the opportunity to participate in HY 499 Research Seminar, offered in the fall semester. The program must include the following:

	Hrs.
a. HY 105-106; 3 additional credit hours from U.S. history	9
b. HY 101 or 115 and HY 102 or HY 116; 3 additional credit hours from European history	9
c. three courses from the history of Africa, Asia, Mid. East., American Indians, and/or Latin America	9
d. three additional history courses as advised	9
e. HY 201 Doing History (should be taken in the sophomore year)	3
Total 39	

Requirements for Transfer Credit: Students transferring credit to Fredonia should normally expect no more than 21 hours earned elsewhere to apply to the major in History. As a rule, the department will not accept as equivalents of upper level courses (above HY 299) credits earned at two-year colleges. Credits for the equivalent of HY 201 or HY 499 earned through correspondence or any test-for-credit programs will not be accepted.

Other Requirements: Majors must fulfill all testing and assessment requirements set by the department. These presently include pre- and post-testing.

Students whose objectives require a different program may, upon peti-

tion to the department chairperson, seek approval for a program of their own design.

Requirements for the Bachelor of Arts Degree in Social Studies

Important Notification to Education Majors

As of July 16, 1998, the New York State Regents have proposed new certification titles for classroom teachers and standards for teacher education programs. Due to the transitional nature of changes in New York State Education requirements, program requirements may be altered according to state specifications. Therefore, students should check with their faculty advisor for explanation of program and certification requirements.

Responsibility for the B.A. in Social Studies is shared by the School of Education and the Department of History. Advising and final approval of requirements is done by the Department of History. A double major in History is strongly recommended. Requirements beyond those of the General College Program include:

Professional Education Courses:

ED 101	First 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
		<hr/> 30

Social Studies Courses: Introductory

HY 101	World History I or	3
HY 115	Early Western Civilization	
HY 102	World History II or	3
HY 116	Modern Western Civilization	
HY 201	Doing History (recommended; fulfills GCP requirement 1b)	3

PS 120	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

Most courses in this section (including the option section, below), must be taken at the 300 or 400 level. However, HY 220 Introduction to Ethnicity and Race, cross-listed as IS (Interdisciplinary Studies) 220 may be taken to satisfy the Minority Studies requirement. In addition, a total of 6 credit hours (two courses) may be selected from HY 264 East Asian Civilizations, HY 261 Islamic Civilizations, and HY 285 Indigenous America: Aztecs and Their Neighbors, to fulfill the other history requirements below and the General Social Studies Option. Before taking 300-level courses, students double-majoring in Social Studies and History should have completed HY 201.

Social Studies Courses: Advanced (300-400 level)

<i>One</i> political science course in American politics, as advised (e.g. PS 313, 323, 324, 329, 370 or 371).	3
<i>One</i> political science course in non-American or international studies, as advised (e.g. PS 330, 331, 332, 334, 341, 344, 347, 349, 352, 354, 355, 356, 359).	3
<i>One</i> course in minority studies, as advised (e.g. HY 220, AN 321, 322, HY 333, 334, 347, 356, 358 or SO 316)	3
Note: Students double-majoring in History should select a history course to fulfill this requirement.	
<i>Plus</i> 9 credit hours in history as advised, including one course in U.S., one in European, and one in non-Western areas: Asia, Africa, Latin America, or Middle East.	9

Plus either a General Social Studies or Economic Studies Option.

General Social Studies Option:

Nine credit hours in history, economics, political science, sociology, or anthropology (all courses must be 300 level or above, with one course in U.S., one in non-U.S. and one in non-Western areas: Asia, Africa, Latin America, Middle East.) *Note:* Students double-majoring in History should select history courses to fulfill this requirement.

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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 Micro-economic Theory	3
EC 310	Intermediate Macroeconomic Theory	3
	One elective (chosen from EC 315, 320, 345, 370, or 380) as advised.	3
		<hr/> 51

Requirements for Transfer Credit: Students transferring credits to Fredonia should normally expect no more than 27 credit hours earned elsewhere to apply to the social studies course requirements. (Special consideration can be given students who have earned a B.A. degree in one of the social sciences.) As a rule, the department will not accept as equivalents to advanced Social Studies courses credits earned at two-year colleges. All requirements for ED 419 and 430 must be completed under Fredonia supervision. Transferred courses to be applied to the requirements of the Social Studies program must have been completed with a grade of C+ or better.

Other Requirements: All majors must fulfill all testing and assessment requirements set by the department. That presently includes pre- and post-testing. *Grades must be C+ or better in all required courses in the Social Studies program.* GCP parts I A and B, or their equivalents, must be passed with a C or better. Students are encouraged to complete one course in statistics and HY 201 Doing History, as part of the General College Program.

Students in all education programs are required to demonstrate competence in a foreign language. This requirement may be satisfied in any one of the following four ways: (1)

completion of course work at the 116 level at Fredonia, or (2) transferring of two successful college semesters, or (3) scoring at the 50th percentile or higher on the CLEP exam, or (4) completion of three years of high school language with a passing Regents score (passing = 65).

Enrolled students and transfer students wishing to declare the Social Studies major must have an overall GPA of 2.50. 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 the senior, professional year is also contingent upon a personal interview and review by the Social Studies screening committee of Department of History faculty and area social studies teachers. A copy of the criteria used by the screening committee may be obtained in the history department. Acceptance into student teaching also requires approval by the chairperson of the School of Education. For requirements for the Professional Education courses and entrance to student teaching, consult the School of Education listings starting on page 48.

ED 419 can be taken only in the fall semester of the senior year. ED 430 requires the entire spring semester as a full course load.

Students are strongly advised to pursue a second major in one of the social science disciplines (economics, history, political science, or sociology/anthropology) and may count appropriate courses taken for the Social Studies major and the General College Program requirements towards such a second major. A student wishing Social Studies certification with the history major should explore this option with his or her academic advisor. Computer Science (CS 104) is also recommended.

Requirements for a Minor in History

Eighteen credit hours of course work in history including 9 credit hours of upper-level courses. The department recommends five possible concentrations: **Global Studies:** HY 101-102, HY 116, HY 386 and two additional upper level courses, either HY 385 and HY 389 or two regional courses focusing on problems in the contemporary era (i.e. Modern Middle East and Modern China, or Modern China and U.S. in the 20th century, or Europe in the 20th century); **American Culture:** HY 105-106, and four additional courses chosen from: HY 332, 333, 334, 335, 338, 339, 347, 351, 353, 355, 375 and 376; **North American Studies:** HY 105-106, and four additional courses chosen from: HY 356, 358, 378, 381, 383, 342; **Native American Cultures:** HY 105-106, and four additional courses chosen from HY 356, 358, 285, 380, 382; **Middle East-Asian History:** HY 101-102, 116, and three of the following courses: HY 261, 264, 265, 266, 361, 366, 367, 368. Other concentrations are also possible. The program must be prepared in consultation with a department faculty member and receive department approval. No more than 9 credit hours of history credit earned prior to the declaration of the minor may be credited toward the program.

The Department of History also participates in the Cooperative Agriculture and the Cooperative Engineering programs. Refer to descriptions of these programs on page 6 and page 53, respectively.

History courses are components of concentrations in American Studies and Social Work. Refer to the descriptions of these programs on pages 7 and 127.

In the list of courses below, 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

HY 101-102. World History I, II **A**
Survey of the human experience from the Neolithic Revolution to the present. Second semester begins with the linking of the world after 1450.

3 hours credit each semester

HY 105-106. United States History **A**
Survey from colonial times of political, economic, social, 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. Course may have co-requisite.

1-3 hours credit each semester

HY 115-116. Western Civilization **A**
A survey of civilization in the West from ancient times to the present. Second semester begins with the 17th century.

3 hours credit each semester

HY 117. History Through Art **B**
This course traces the evolution of western civilization from its Greco-Roman roots to the end of the Renaissance. Illustrations from the plastic arts are employed to interpret the leading characteristics and the lasting achievement of those societies and their institutions that are discussed.

3 hours credits each semester

HY 118-130. 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. Course may have co-requisite.

1-3 hours credit each semester

HY 201. Doing History **A**
Introduction to history as a discipline and as a process. Focus on the development of historical-mindedness and those skills and levels of intellectual maturity essential to doing history. Writing intensive. History and Social Studies majors should take the course in the sophomore year.
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. Course may have co-requisite.

1-3 hours credit each semester

HY 212. History of the Holocaust B

The Nazi murder of six million Jews and perhaps 10 million other people during World War II, for the sole purpose of eliminating "undesirable people," may be the seminal event of the 20th century. This introductory, multimedia course surveys the Nazi programs of mass murder, explores their historical roots, and their consequences for our world today.

3 hours credit

HY 220. Introduction to Ethnicity and Race B

Interdisciplinary approach to race and ethnicity in the United States and other contemporary multiethnic/multiracial societies.

3 hours credit

HY 252. Communications: Yesterday and Today B

Evolution of Western communication and media from the printing press to telecommunications, including the newspapers, photography, broadcasting, and cable and satellite transmissions. Cross-listed as CM 252; credit cannot be earned for both courses.

3 hours credit

HY 261. Islamic Civilization C

The political, religious and social development of the Islamic Empire from pre-Islamic to Napoleonic era.

3 hours credit

HY 264. East Asian Civilizations B

Introduction to the history of East Asia from the Neolithic age to the present, with emphasis on the modern period. Domestic economic and political developments in China, Japan, Korea and Vietnam, regional interaction, contact with the West, and development of the Pacific rim economic zone, are among the topics covered.

3 hours credit

HY 265. Premodern East Asia D

The development of East Asian civilization from the Neolithic Revolution to the end of the 16th century, with emphasis on the classical philosophers, the growth of states and national economies, cultural exchange, and scientific and technological achievements.

3 hours credit

HY 266. Modern East Asia D

The history of East Asia from 1700 to the present. Covers domestic economic and political developments, interaction between the cultures and nations of the region, interaction with the West, and the revolutions of the 19th and 20th centuries.

3 hours credit

HY 285. Indigenous America: Aztecs and Their Neighbors B

Pre-Columbian America from early hunting and gathering bands, through farming villages and chiefdoms, to the great urban states and civilizations of the Mayas, Aztecs, Incas and their neighbors. Concludes with conquest culture, i.e., the history of European-Indian relations since 1492.

3 hours credit

HY 299, 399. Experimental Courses in History D

Varies 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

Intermediate Courses:

HY 301. The Greek World: Classical Greece C

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 101-102 or HY 115.

3 hours credit

HY 302. The World of Rome: Republican and Imperial Rome C

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 101-102 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 101-102 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 101-102 or HY 115.

3 hours credit

HY 306. The Age of Reformation B

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 101-102, or HY 115.

3 hours credit

HY 309. The Modernization of Europe B

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 102, or HY 116.

3 hours credit

HY 311. Europe in the Modern World B

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, perhaps to be united as a new super power. Special attention to international tensions, fascism, and the Nazi and Soviet experiences.

Prerequisites: completion of GCP, parts I and II, or HY 102, 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 102, or HY 116.

3 hours credit

- HY 315. The Formation of France** **B**
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 101-102, or HY 115.
3 hours credit
- HY 317. Modern France** **D**
The leading social, economic and political events since the revolution of 1789. The major theme is the transformation of a rural and agrarian society in conflict with an urban nucleus of heavy industry into a modern technological community in which the schisms of 1789 are no longer relevant.
Prerequisites: completion of GCP, parts I and II, or HY 116.
3 hours credit
- HY 322. French Revolution and Napoleon** **B**
A major turning point in the ideological, social, and constitutional evolution of the modern West. Far-reaching change during a decade of revolutionary turmoil, followed by 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 101-102, or HY 116.
3 hours credit
- HY 323. The Victorian Epoch** **D**
The transformation of Great Britain from an agrarian country governed by landed patri- cians 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.
Prerequisites: completion of GCP, parts I and II, HY 101-102, or HY 116.
3 hours credit
- HY 325. Colonial America** **C**
American history from European settlement through the American Revolution. Focus on the lives and perceptions of ordinary men and women.
Prerequisites: completion of GCP, parts I and II, or HY 105.
3 hours credit
- HY 327. Antebellum U.S., 1820-1861** **C**
Territorial expansion and resistance, the rise of the factory system and labor unions, political and cultural democratization, social reform, immigration and nativism, religious re- vivalism, slavery, and the causes of the Civil War.
Prerequisites: completion of GCP, parts I and II, or HY 105.
3 hours credit
- HY 330. U.S. Industrialization and Reform 1890-1920** **C**
The transformation of the U.S. from a rural/agrarian to an urban/industrial society. Topics include the process of industrializa- tion and social upheavals that resulted; the development of the New South and New West; the emergence of the U.S. as a world power; the challenge of ethnic/cultural diver- sification; and the social and political reform movements of the era.
Prerequisites: completion of GCP, parts I and II, or HY 106.
3 hours credit
- HY 331. The Inter-War Years, 1919-1945** **C**
The 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.
Prerequisites: completion of GCP, parts I and II, or HY 106.
3 hours credit
- HY 332. U.S. History, 1945 to the Present** **B**
The major cultural, economic, and political developments since World War II, including the Cold War, 1960s counterculture, Civil Rights movement, the Reagan era.
Prerequisite: HY 106.
3 hours credit
- HY 333-334. African-American His- tory** **A**
Survey of the historical forces, within the African-American community and elsewhere, which have shaped the African-American ex- perience. First semester explores the cul- tural, social, and political development of Afri- can people in the colonies and the United States from their African origins through Re- construction. The second semester includes the failures of Reconstruction, Jim Crow, is- sues of accommodation and separatism, the Harlem renaissance, the African-American experience in wartime, the civil rights move- ment, and current problems in race relations.
3 hours credit each semester
- HY 335. American Women** **D**
A survey of women's history from colonial times to present with emphasis on the changing status and definition of women's roles, race and ethnici- ty, and women's writings.
Prerequisites: completion of GCP, parts I and II, or HY 106.
3 hours credit
- HY 338-339 19th & 20th Century American Culture** **C**
Examines how social, political, and eco- nomic changes have affected American cul- ture and Americans' lives. Topics include consumption patterns; recreational activities; architectural styles; high and popular culture; holidays; family life; and social and cultural rituals.
Prerequisites: completion of GCP, parts I and II, or HY 105 for HY 338, or HY 106 for HY 339.
3 hours credit each semester
- HY 340. The Westward Movement** **D**
The importance of the frontier and the ex- panding West to the development of the U.S., its history, institutions, beliefs, values, and national character. The West as myth and re- ality, from colonial times to issues confront- ing the 20th century trans-Mississippi West.
Prerequisite: completion of GCP, parts I and II, or HY 105 or 106.
3 hours credit
- HY 342. The American Century** **C**
The major issues in American foreign policy in the 20th century. The focus is on America's economic ascendancy and the effect of this prominence on 20th century world order.
Prerequisite: completion of GCP, parts I and II, or HY 106.
3 hours credit
- HY 347. U.S. Immigration** **C**
Immigration to the U.S., with an emphasis on comparing the experiences of European, Af- rican, Latin American, and Asian immigrants. Topics will include immigrants' lives, work, and communities; assimilation and cultural persistence; and the development of U.S. im- migration policy.
Prerequisites: completion of GCP, parts I and II, or HY 105, or HY 106.
3 hours credit
- HY 349. U.S. Military History** **D**
The development of American military strat- egy and tactics. Focus 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**
American foreign policy from F.D.R. to Nixon and its effects on Vietnam, American domes- tic policy and the growth of the National Se- curity State.
Prerequisites: completion of GCP, parts I and II, or HY 106.
3 hours credit

- HY 351. Defining America** **D**
Examines how private citizens, writers, politicians, business, the media and popular culture have defined America since 1776, how these definitions have changed over time, and the impact of race, ethnicity, gender, and class on these definitions.
Prerequisites: completion of GCP, parts I and II, or HY 106.
3 hours credit
- HY 353. Creating American Consumer Culture** **B**
Examines the historical development of a consumer culture and its effects on American culture. Topics include the roots of consumer culture; the industrial revolution; the development of advertising; and the impact of consumer culture on concepts of gender, race, ethnicity, age and class, and on cultural values.
Prerequisites: completion of GCP, parts I and II, or HY 106.
3 hours credit
- HY 355. American Religious History** **D**
American religion from the Puritans to the present as set in the larger social, economic and cultural context.
Prerequisite: completion of GCP, parts I and II, or HY 105 or 106.
3 hours credit
- 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**
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.
3 hours credit
- HY 361. Modern Middle East** **C**
History of the Modern Middle East (18th-20th century) with emphasis on the social, political and economic repercussions of the Western presence in the region.
Prerequisites: completion of GCP, parts I and II, or HY 261.
3 hours credit
- HY 366. Late Imperial China** **B**
From the late Ming dynasty to the fall of the Manchu Qing dynasty in 1912. Covers the rise of the Manchus, political and cultural developments in the Qing empire, and the Western impact in the 19th century.
Prerequisites: completion of GCP, parts I and II; or HY 264, 265 or 266.
3 hours credit
- HY 367. 20th Century China** **B**
From the fall of the Manchus (1912) to the present. Covers political and cultural developments, including nationalist and Communist revolutions, the Anti-Japanese War, and the People's Republic through the post-Mao reforms.
Prerequisites: completion of GCP, parts I and II; or HY 264, 265 or 266.
3 hours credit
- HY 368. Modern Japan** **B**
Japanese history from the founding of the Tokugawa shogunate to the present. Covers political and cultural developments during the shogunate, the Meiji Restoration, domestic political and cultural developments, and Japan's interactions with the West and other East Asian nations in the 19th and 20th centuries.
Prerequisites: completion of GCP, parts I and II, or HY 264, 265 or 266.
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. Prison, schooling, the market system, hegemony, the welfare state, narrative and the media.
Prerequisites: completion of GCP, parts I and II.
3 hours credit
- HY 376. Film and American Culture** **B**
Examines the links between film and American culture and society from the silent era to the present, with some emphasis on the Great Depression, the post-World War II years, and the 1980s. Thematic concerns include race and ethnicity, sexuality and gender, class, identity, postmodernism, voyeurism, and the "new age." Ten or 11 screenings each semester.
Prerequisites: HY 106 or sophomore standing.
3 hours credit
- HY 378. Canada and the Canadians** **C**
Contemporary Canada: history, geography, population, parliamentary government, economic structure, free trade, Quebec nationalism and the British legacy.
Prerequisites: completion of GCP, parts I and II.
3 hours credit
- HY 380-381. History of Mexico** **C**
First semester, 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.
Prerequisites: completion of GCP, parts I and II, or 6 credit hours of history.
3 hours credit each semester
- HY 382-383. History of Latin America** **C**
Political, economic, and social development of Latin America; pre-Columbian era to present. First semester: colonial period. Second semester: national period.
Prerequisites: completion of GCP, parts I and II, or 6 credit hours of history.
3 hours credit each semester
- HY 385. International Communication** **B**
An examination of the media in a global context. Attention is focused on public and private management, regulatory mandates, and programming and publishing philosophy in the global village. Topics include cultural exchange and interaction between the media and consumers.
Prerequisites: completion of GCP, parts I and II.
3 hours credit
- HY 386. Global Studies** **C**
Themes in world history, across cultures and civilizations, with focus on the non-western world. Topics range from the development of capitalism to cross-cultural encounters (e.g., British in Indonesia, Dutch and Mughals in India, Spanish and Aztecs in Mexico). Topics and periods vary from semester to semester.
Prerequisites: completion of GCP, parts I and II.
3 hours credit
- HY 387. Comparative Slave Societies** **C**
The development, effects, and elimination of slavery in different societies and in various eras. Includes historians' debates on slavery and its impact.
Prerequisites: 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.
Prerequisites: completion of GCP, parts I and II, HY 101-102, or HY 115.

3 hours credit

HY 389. Religion in the Western Tradition C

Historical development of three great monotheistic faiths: Judaism, Christianity, Islam. Comparison of these creeds with earlier religions. The development of monotheistic faiths and their divergent branches and heresies into modern times. Changing religious ideals, values and practices over time.

Prerequisites: completion of GCP, parts I and II, HY 101-102, HY 115, or HY 116.

3 hours credit

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. Students should have specific topics in mind before approaching an instructor.

Prerequisite: suitable background in the topic.

1-3 hours credit each semester

HY 401-402. Topics in Ancient History D

1-3 hours credit hours per semester

HY 403-404. Topics in Medieval History D

1-3 hours credit each semester

HY 405-408. Topics in Early Modern Europe D

1-3 hours credit each semester

HY 409-424. Topics in Modern and Contemporary Europe D

1-3 hours credit each semester

HY 425-426. Topics in Early American History D

1-3 hours credit each semester

HY 427-429. Topics in Nineteenth Century U.S. History D

1-3 hours credit each semester

HY 430-432. Topics in Twentieth Century U.S. History D

1-3 hours credit each semester

HY 460-469. Topics in Eastern History D

1-3 hours credit each semester

HY 480-484. Topics in Latin American History D

1-3 hours credit each semester

HY 490. Public History Internship A

Students interested in a career in public history may receive credit for an internship with an historical society, museum, archive, or other public history venue. Enrollment is to be arranged with an appropriate faculty sponsor.

Prerequisites: junior standing and permission of instructor.

1-6 hours credit

HY 499. Research Seminar B

Historiography, methodology of research through preparation of research paper requiring use of primary sources. By invitation only.

Prerequisites: HY 201 and senior standing.

3 hours credit

INDUSTRIAL MANAGEMENT

Office: 116 Houghton Hall
 (716) 673-3302

E-mail: Indlmgnt@fredonia.edu
Peter G. Mattocks, 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 credit hours) is an integrated multidisciplinary curriculum combining courses from applied physics (25/27 credit hours), business/economics (24 credit hours), mathematics/computer science (25 credit hours), social sciences/humanities (24 credit hours), and a sufficient number of supporting elective courses to enhance career objectives. Additionally, the foundation of oral and written com-

munication 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 broad-based liberal education.

Required Core Program (86-88 hours):

Physics (25-27 credit hours)

PH 230-231	University Physics I & II and PH 232-233 (Labs)	8
PH 321-322	Engineering Mechanics I & II	8
PH 323	Circuit Analysis I or	3
PH 325	Electronics and PH 327 (Lab)	4
PH 324	Circuit Analysis II or	3
PH 326	Digital Electronics and PH 328 (Lab)	4
PH 330	Thermodynamics	3
		<u>25-27</u>

Mathematics/Computer Science (25 credit hours)

MA 122-123-223	University Calculus I, II & III	12
MA 224	Differential Equations	3
MA 325	Numerical Analysis	3
CS 121	Computer Science I	4
CS 223	COBOL Programming	3
		<u>25</u>

Business/Economics (24 credit hours)

AC 201-202	Principles of Accounting I & 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 credit hours)

BA 327	Production and Operations Management or	
MA 359	Probability Models in Operations Research or	3
MA 375	Introduction to Operations Research	
EC 200	Fundamentals of Statistics for Economics & Business	

MA 350	or Probability and Statistics	3
PY 200	or Statistics	
SO 200	or Statistics for Sociologists	6
Communications (6 credit 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.

INTERDISCIPLINARY STUDIES

The Interdisciplinary Studies degree program (formerly Special Studies) provides students with the greatest possible flexibility in meeting their educational goals by offering the opportunity to design creative and individualized interdisciplinary majors and minors.

Students in the Interdisciplinary Studies programs are committed to exploring innovative connections and emerging relationships drawn from the traditional disciplines and those developing areas of overlap and interface. These students are typically explorers and creative problem solvers, and many Interdisciplinary Studies students construct their own topics of study (for either major or minor) using analytical approaches and tools from several fields. Students may also choose to pursue one of the model major programs (to the right). The degree program constitutes a student's major; the interdisciplinary minors may be taken by students majoring in any program in the college.

Students who opt for a truly individualized degree program must develop their own program under the guidance of two faculty members and with the approval of the Associate Vice President/Graduate Dean. The necessary form and guidelines for submitting a formal individualized major proposal are available in the Office of the Registrar. Either an

individualized degree program or a model major program will lead to the degree of Bachelor of Arts or Bachelor of Science (B.A. or B.S.).

Students interested in declaring an interdisciplinary major or minor should consult with the coordinator from the appropriate area. Model major and model minor programs

and coordinators are listed below. Majors and minors must be formally declared through the Office of the Registrar.

Interdisciplinary Studies Model Majors

Areas of Study

American Studies
see page 7

Arts Administration
see page 12

Criminal Justice
see page 37

Environmental Sciences
see page 61

International Studies
see page 83

Legal Studies
see page 86

Music Business
see page 110

Coordinators

Dr. James Huffman, English
257 Fenton Hall
(716) 673-3848

Jefferson Westwood, Director
G-15 Rockefeller Arts Center
(716) 673-3217

Dr. B.J. Stephens, Sociology/Anthro.
W381 Thompson Hall
(716) 673-4611

Dr. David R. Orvos, Biology
107A Jewett Hall
(716) 673-3819

Dr. A. Jacqueline Swansinger, History
E311 Thompson Hall
(716) 673-3881

Dr. James R. Hurtgen, Political Science
E386 Thompson Hall
(716) 673-3885

Dr. Harry Jacobson, Music
1139 Mason Hall
(716) 673-3248

Interdisciplinary Studies Model Minors

African American Studies
see page 95

American Studies
see page 7

Arts Administration
see page 12

Criminal Justice
see page 37

Dance
see page 38

Electronic Publication
see page 53

Geographic Information Systems
see page 66

Gerontology
see page 71

Latino Studies
see page 95

Women's Studies
see page 143

Dr. Najia Aarim, History
E308 Thompson Hall (716) 673-3883

Dr. James Huffman, English
257 Fenton Hall (716) 673-3848

Jefferson Westwood, Director
G-15 Rockefeller Arts Center
(716) 673-3217

Dr. B.J. Stephens, Sociology/Anthro.
W381 Thompson Hall (716) 673-4611

Ms. Carol Prevet, Theatre and Dance
147 Dods Hall (716) 673-3107

Dr. Robert Deming, English
278 Fenton Hall (716) 673-3125

Dr. Ann K. Deakin, Pol. Sci.
E378 Thompson Hall (716) 673-3884
Dr. Khalid J. Siddiqui, Mathematics/CS
212 Fenton Hall (716) 673-3193
(co-coordinators)

Dr. David Larson, Sociology
W363 Thompson Hall (716) 673-3205

Dr. C. Andrea Herrera, English
237 Fenton Hall (716) 673-3847

Dr. JeanetteMcVicker, English
232 Fenton Hall (716) 673-3852

Requirements for an Interdisciplinary Studies Degree Program

1. For students who choose a model major program (see list below), each student is advised by the program coordinator or a member of the cadre of faculty from the lead department for each model major;
2. For students who pursue an individualized major, formal completion and submission of the degree plan proposal must be approved by the Associate Vice President/Graduate Dean;
3. All students in this program must complete the college's requirements for the General College Program (36 credit hours) and the number of credit hours required outside of the major;
4. A maximum of 45 credit hours in any one discipline may count toward the 120 credit hours total required for the baccalaureate;
5. The proposed major must constitute at least 36 hours of which no more than 15 hours may come from one discipline. At least 24 of those 36 credit hours must be at the 300-400 level.
6. A minimum of 36 hours of 300-400 level courses must be included in the 120 hours required for graduation.

Requirements for the Minor in Interdisciplinary Studies

An Interdisciplinary Studies minor is a group of six to nine courses centering on a topic or problem studied from many different points of view. Each minor may be studied in combination with any major. At present, model minors are available in American Studies, Arts Administration, Criminal Justice, Dance, Electronic Publication, Geographic Information Systems, Gerontology, Social Work, and Women's Studies. Individualized minors may be created under the advisement of an appropriate area coordinator. Minors must be formally declared through the Office of the Registrar.

Interdisciplinary Studies Courses

In addition to the major programs and minors described on the previous page, the Interdisciplinary Studies program offers several courses developed for interdisciplinary or special interest purposes.

Independent study and internship options are available through Interdisciplinary Studies. Internships may receive up to 15 hours of credit. Students proposing an internship are required to prepare a "Learning Contract" describing the goals of the internship and how they will be met. Internship forms are available from the Coordinator of Internships. Only 6 credit hours earned through internship or independent study may be applied toward the 300- and 400-level course requirements of the individualized major.

In the list of courses below, 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

IS 480. Independent Study **A**
Open only to Interdisciplinary Studies majors. Proposed independent studies must be described in the student's approved *Interdisciplinary Studies* proposal.

3 hours credit

IS 490. Internship **A**
Open only to Interdisciplinary Studies majors. Students proposing internships must have an approved Interdisciplinary 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.

1-15 hours credit

INTERNATIONAL STUDIES

E311 Thompson Hall
(716) 673-3881
E-mail: Internat@fredonia.edu
A. Jacqueline Swansinger,
Coordinator

As we embrace the reality of global interdependence, the International Studies major has been designed to prepare students for international leadership roles in the twenty-first century. This program encourages its majors to think both globally and across disciplines as they seek to understand the dynamics of a global society. The International Studies major has been designed to prepare students for careers in the most dynamic sectors of global governance, society and economy. The vitality behind this program comes from faculty in several disciplinary fields who offer courses and act as a steering committee for the program.

Students take a core of interdisciplinary courses, select a specialization, and complete a minor. The core courses in International Studies provide all students with a basis on which to build their individualized programs through one of six thematic specializations. Core courses ensure students will be introduced to international relations, global history, cultural issues, and the concerns and challenges facing developing and developed countries. Students also select a minor which complements the thematic specializations. The specializations offer students the opportunity for more individualized training within the framework of international studies. The six specializations are International Political Economy, Peace and Conflict, European Cultural Studies, Cultural Studies of the Americas, Advanced Industrial Societies, and the Developing World. The International Political Economy specialization prepares students for careers or graduate study in the area of economic and political analysis and policy-making. The Peace and Conflict specialization would be of interest to students interested in pursuing careers in di-

plomacy or national security. With the proliferation of international governmental and non-governmental organizations dedicated to cultural exchange and dialogue and the globalization of the entertainment industry, the European Cultural Studies and the Cultural Studies of the Americas specializations prepare students to seek careers in fields such as arts administration, global communication, and the championing of human rights. The two specializations - Advanced Industrial Societies and the Developing World - lay the foundation for those students who will pursue regional specializations in international job settings or in graduate-level training. Proficiency must be demonstrated in a foreign language equivalent to a two-year course of study. More advanced study of a foreign language is strongly encouraged. Students gain international experience through a study program abroad or an international internship.

This is an interdisciplinary model major program; for specific degree requirements unique to Interdisciplinary Studies, refer to page 82.

Requirements for the Bachelor of Science/Interdisciplinary Studies Major in International Studies

I. Core Requirements (23 credit hours)

IS 101	International Studies Colloquium	1
AN 115	Introductory Anthropology	3
EC 201	Macroeconomics	3
	<i>Plus two of the next three courses listed below:</i>	6
EN 211	World Poetry	
MU 333	Musics of the World	
AR 116	Masterpieces of Art from 1400 to Present	
HY 102	Global Studies II	3
PS 150	U.S. And World Affairs	3
PS 352	World Political Geography	3
IS 401	Senior Colloquium	1

II. Foreign Language (3 to 12 credit hours)

1. Completion of course work through the 216 level (second-semester intermediate). This requirement may be satisfied by a student attaining a satisfactory score on the Foreign Language Placement test or a score of 4 or 5 on the Advanced Placement Educational Testing Service Examination.
2. Students must take a minimum of one course (3 credit hours) at the college level. Students may complete this requirement at Fredonia, in a program at an approved institution in the U.S., or in a foreign country.
3. Foreign language training at the 300- and 400-levels is strongly recommended.

III. International Experience (6 credit hours)

Students must take 6 credit hours of an international experience that has been approved by the International Studies Curriculum Committee. An experience in a foreign country is preferred, but not mandatory. This requirement can be fulfilled via enrollment in a short- or long-term study abroad program or completion of an internship with an international agency.

IV. Specializations (21 credit hours)

A. Students select *one* of the six specializations listed below:

- International Political Economy
- Peace and Conflict
- European Cultural Studies
- Cultural Studies of the Americas
- Advanced Industrial Societies
- The Developing World

B. No more than 9 credit hours may be taken in the same discipline. (Exception: International Political Economy Specialization.)

International Studies Specializations Guidelines:

1. Students select one specialization.
2. No more than 9 credit hours in the same discipline (Exception: International Political Economy Specialization)
3. A student must select a minor from the list provided for each of the specializations.

International Political Economy

Minor: Economics or Political Science, which may include some prerequisites below.

From courses below, students take *seven courses*, distributed as follows:

- a. One course from each area: economics, political science, history (total three courses).
- b. Three courses from the field in which one does *not* minor (PS or EC).
- c. One course from EC, PS or HY (excluding non-minor field).

EC 202	Microeconomics
EC 320	International Trade and Finance
EC 321	Economics of Multinational Corporations
EC 335	Economic Development
EC 345	Comparative Economic Systems
EC 380	Environmental Economics and Natural Resource Economics
EC 395	Comparative Human Resources
HY 266	Modern East Asia
HY 311	Europe in the Modern World
HY 361	Modern Middle East
HY 367	20th Century China
HY 368	Modern Japan
HY 383	History of Latin America II
HY 386	Global Studies
LF 305	French for Business I
LF 306	French for Business II
PS 341	Political Economy of Development
PS 344	Comparative Public Policy
PS 346	East Asian Political Economy: Japan, China and Korea
PS 348	European Union
PS 354	Middle East Politics

- PS 355 International Political Economy
 PS 356 U.S. Foreign Policy
 SO 319 Social Change and the Future

Peace and Conflict (21 credit hours)

Minors: History, Political Science.

- CM 385/H International Media/International Communication
 CM 465 Intercultural Communication
 EC 202 Microeconomics
 EC 345 Comparative Economic Systems
 FL 398 The Holocaust in Literature
 HY 212 History of the Holocaust
 HY 309 Modernization of Europe
 HY 311 Europe in the Modern World
 HY 312 Modern Germany
 HY 342 The American Century
 HY 349 U.S. Military History
 HY 350 Vietnam and the Growth of the National Security State
 HY 361 Modern Middle East
 HY 368 Modern Japan
 PS 354 Politics of the Middle East
 PS 356 U.S. Foreign Policy
 PS 361 Modern Political Theory
 PS 363 Game Theory
 SO 304 World Views

European Cultural Studies (21 credit hours)

Minors: Art, Communication, English, Foreign Language, History, Music, Philosophy

- AR 340 History of Architecture
 AR 451 Modern Architecture
 EN 322 The Romantic Age
 EN 326 Victorian and Early Modern Literature
 EN 328 Modern English Literature
 EN 396 Russian Literature
 HY 116 Modern Western Civilization
 HY 306 The Age of Reformation
 HY 309 Modernization of Europe
 HY 311 Europe in the Modern World
 HY 312 Modern Germany
 HY 322 French Revolution and Napoleon
 LF 315 French Masterpieces I
 LF 316 French Masterpieces II
 LF 319 Survey of French Literature I
 LF 320 Survey of French Literature II
 LS 315 Introduction to Hispanic Literature

- LS 319 Survey of Spanish Literature I
 LS 320 Survey of Spanish Literature II
 MU 115 Music in Western Culture
 MU 252 History of Western Music: 1750-1875
 MU 255 History of Western Music: 1875-Present
 PL 338 Marxist Thought
 PS 345 Film and Politics

Any foreign language or culture course focusing on a European country.

Cultural Studies of the Americas (21 credit hours)

Minors: Art, Communication, English, Foreign Language, History, Music, Philosophy.

- AN 324 Anthropology of the Caribbean
 AN 345 Canada's Native People
 EN 395 Third World Literature
 FL 371 Canadian Writers
 FL 378 Canada Today
 LF 310 Quebec Literature and Culture
 LS 324 Survey of Spanish-American Literature I
 LS 325 Survey of Spanish-American Literature II
 HY 285 Indigenous America: Aztecs and Their Neighbors
 HY 347 U.S. Immigration
 HY 351 Defining America
 HY 380 History of Mexico I
 HY 381 History of Mexico II
 HY 382 History of Latin America I
 HY 383 History of Latin America II
 PS 331 Canadian Politics

Advanced Industrial Societies (21 credit hours)

Minors: Economics, History, Political Science

- CM 385/H International Media/International Communication
 EC 201 Microeconomics
 EC 320 International Trade and Finance
 EC 321 Economics of Multinational Corporations
 EC 345 Comparative Economic Systems
 EC 395 Comparative Human Resources

- FL 378 Canada Today
 LF 323 France Today
 LG 323 Germany Since 1918
 HY 212 History of the Holocaust
 HY 309 Modernization of Europe
 HY 311 Europe in the Modern World
 HY 312 Modern Germany
 HY 317 Modern France
 HY 342 The American Century
 HY 368 Modern Japan
 HY 386 Global Studies
 PL 342 Values in a Technological Society
 PS 330 Western Europe
 PS 331 Canadian Politics
 PS 332 Russian Politics
 PS 346 East Asian Political Economy: Japan, China and Korea
 PS 355 International Political Economy
 SO 319 Social Change and the Future
 SO 321 Population and Society
 SO 361 Law in the World

The Developing World (21 credit hours)

Minors: Anthropology, Economics, History, Political Science, Sociology

- AN 321 Anthropology of Africa
 AN 322 Anthropology of Indian America
 AN 324 Anthropology of the Caribbean
 AN 345 Canada's Native People
 CM 385/H International Media/International Communication
 CM 465 Intercultural Communication
 EC 201 Microeconomics
 ED 320 International Trade and Finance
 EC 321 Economics of Multinational Corporations
 EC 335 Economic Development
 EC 345 Comparative Economic Systems
 EC 380 Environmental Economics and Natural Resource Economics
 EN 395 Third World Literature
 HY 261 Islamic Civilization
 HY 266 Modern East Asia
 HY 285 Indigenous America: Aztecs and Their Neighbors
 HY 342 The American Century
 HY 361 Modern Middle East
 HY 366 Late Imperial China
 HY 367 20th Century China
 HY 380 History of Mexico I

HY 381	History of Mexico II
HY 382	History of Latin America I
HY 383	History of Latin America II
HY 386	Global Studies (if not taken in core)
HY 387	Comparative Slave Societies
PS 334	African Politics
PS 341	Political Economy of Development
PS 346	East Asian Political Economy: Japan, China and Korea
PS 354	Politics of the Middle East
SO 314	Contemporary Africa
SO 319	Social Change and the Future
SO 321	Population and Society

IS 101. Colloquium **D**
Explores the basic concepts and views of International Studies as well as offering an introduction to each area of specialization.
1 hour credit

IS 401. Senior Colloquium **C**
Research and writing on a topic in student's specialization.
Prerequisite: Completion of IS Core and specialization.
1 hour credit

LEGAL STUDIES

E386 Thompson Hall
(716) 673-3885
E-mail: Legalstu@fredonia.edu
James Hurtgen, Coordinator

Legal Studies is designed to provide students with a broad background of interdisciplinary courses focusing on the development and structure of the law. It provides a blended, specialized curriculum that retains the strengths of a liberal arts and sciences education while providing an excellent preparation for advanced study in the field of law. Students will be provided with an interdisciplinary approach to the study of the American judiciary with integral layers of ethics, social sciences and analytical skills. An internship in a legal setting is one of the key components. The program is especially helpful for those seeking a more complete understanding of the legal system and the interaction of law in society, and those preparing for the Law School Admission Test. A pre-law advisory committee exists to provide students with career counseling.

This is an interdisciplinary model major program; for specific degree requirements unique to interdisciplinary studies, refer to page 82.

I. Core Requirement (3 credit hours)

PS 276	Law and Society	3
PS 277	Introduction to Law	3

II. Law (9 credit hours)

AC 311	Business Law	3
AC 312	Business Law II*	3
AN 330	Comparative Law and Politics*	3
BA 310	Legal Environment of Business	3
HA 310	Health Law	3
BA 350	Health Law	3
PS 370	Constitutional Law*	3
PA 371	Civil Rights and Liberties*	3
PS 383	Courts and Social Policy*	3
SO 360	Criminal Justice System*	3
SO 361	Law in the World*	3

III. Law, Philosophy and Human Behavior (12 credit hours)

CM 353	Communication, Law and Ethics*	3
PL 218	Introduction to Ethics	3
PL 265	Social and Political Philosophy	3
PL 310	Administrative Ethics	3
PL 312	Current Moral Issues and Principles	3
PL 362	Philosophy of Law	3
PS 360	Classical Political Theory	3
PS 361	Modern Political Theory	3
PS 365	American Political Thought *	3
PY 245	Social Psychology* or	3
SO 204	Social Psychology*	3
PY 356	Abnormal Psychology*	3
SO 310	Sociology of Deviant Behavior*	3
SO 362	Criminology*	3
SO 363	Victimology*	3
SO 364	Juvenile Delinquency*	3

IV. Skill Requirements (12 credit hours)

AC 200	Principles of Accounting	3
EC 201	Principles of Macroeconomics	3
EC 202	Principles of Microeconomics	3
PL 106	Critical Thinking	3
PL 116	Introduction to Deductive Logic	3

PL 220	or Introduction to Inductive Logic	
PS 200	Statistics	
PY 200	or Statistics	3
SO 200	or Statistics	

V. Legal Internship (Optional)

* prerequisite required

Most professions require effectiveness in writing and speaking. This is certainly true of the legal profession. Students are advised to choose courses which will help them develop these skills; e.g. CM 105 and CM 205 for speaking and upper division courses as electives for writing.

Students should also acquire a knowledge of standard computer software including word processing, spreadsheet and database programs. Familiarity with bibliographic and data search routines including the Internet and World Wide Web are strongly encouraged. A course such as BA 350 Internet Arts would be helpful.

(Latino Studies, see Multiethnic Studies, page 95.)

MATHEMATICS

Office: 223 Fenton Hall
(716) 673-3243
E-mail: Math@fredonia.edu
H. Joseph Straight, Chairperson

The goal of the programs in Mathematics is to prepare students for the lifelong study and use of mathematics. The application of mathematics has made possible many of the technological advances now taken for granted. Conversely, 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 would have been thought possible only a few years ago.

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 for careers as high school mathematics teachers. The department offers a Master of Science in Education-Mathematics program intended for secondary mathematics teachers with provisional certification in New York State. Consult the graduate catalog for complete details on this program. 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 53 and 6.

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. Two scholarships are awarded annually to Mathematics majors based on academic performance and faculty recommendations: the Frank R. Olson Scholarship and the Earl G. Mathewson Scholarship.

For further details about the programs in mathematics see H. Joseph Straight, chairperson of the Department of Mathematics and Computer Science. See also page 31 for the programs offered in Computer and Information 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)**

**Requirements for the
Bachelor of Science Degree
in Mathematics**

**Liberal Arts Major (45 or 46
credit hours):**

		Hours
MA 125	Software for Mathematics or	3
CS 120	Computer Science Overview	4
MA 122-123	University Calculus I and II	8
MA 210	Discrete Mathematics	4
MA 223	University Calculus III	4
MA 224	Differential Equations	3
MA 231	Linear Algebra	4
MA 323	Intermediate Real Analysis	3
MA 331	Abstract Algebra I	3
MA 405	Senior Seminar	1
MA 420	Advanced Calculus	3
Plus three additional courses in mathematics at the 300 level or higher, as advised		9
		45 or 46

Cooperative Engineering students may substitute PH 425 for MA 420, and should take CS 121 in place of CS 120 or MA 125.

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 Major (42 or 43 credit
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 45 for procedure for admission to those courses) and completing the following courses: 42 or 43 credit hours in mathematics and computer science including:

		Hrs.
MA 122-123	University Calculus I and II	8
MA 125	Software for Mathematics or	3
CS 120	Computer Science Overview	4
MA 210	Discrete Mathematics	4
MA 223	University Calculus III	4
MA 231	Linear Algebra	4
MA 323	Intermediate Real Analysis	3
MA 331	Abstract Algebra I	3
MA 350	Probability and Statistics	3
MA 405	Senior Seminar	1
Plus two of the following five courses:		
MA 332	Abstract Algebra II	3
MA 335	Number Theory	3
MA 337	Combinatorics	3
MA 341	Geometry	3
MA 381	History of Mathematics	3
Plus one additional course at the 300 level or higher		3
		42 or 43

Students in all education programs are required to demonstrate competence in a foreign language. This requirement may be satisfied in any one of the following four ways: (1) completion of course work at the 116 level at Fredonia, or (2) transferring of two successful college semesters, or (3) scoring at the 50th percentile or higher in the CLEP exam, or (4) completion of three years of high school language with a passing score on the Regents Examination (passing = 65).

All Mathematics majors must complete a science course and its laboratory selected from the following:

- Chemistry: CH 115 and CH 125
- Physics: PH 230 and PH 232

If approved for the General College Program, these courses may be applied to satisfy one of the two courses required in Part II.A of the General College Program.

**Requirements for the
Bachelor of Science Degree
in Mathematics/Physics**

For information about the degree in Mathematics/Physics, see page 114.

**Requirements for the Minor in
Mathematics**

Twenty-four to 26 credit hours distributed as follows:

	Hrs
MA 122-123 University Calculus I & II	8
MA 210 Discrete Mathematics	4
MA 231 Linear Algebra	4
or	
MA 224 Differential Equations	3

Three courses in mathematics at the 223 level or higher, with at least two of these at the 300-400 level.

Requirements for the Minor in Applied Mathematics

Twenty-five credit hours distributed as follows:

	Hrs.
MA 122 University Calculus I	4
MA 123 University Calculus II	4
MA 223 University Calculus III	4
MA 210 Discrete Mathematics	4
or	
MA 231 Linear Algebra	4

Plus three courses chosen from MA 224, 322, 325, 329, 337, 350, 351, 359, 375, 440, CS 242, 441, PH 425, 426.

A student may not minor in both Mathematics and Applied Mathematics

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 53 and page 6, respectively.

In the list of courses below, 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

MA 104. Introduction to Data Analysis **A**

Survey of a variety of topics used in the analysis of data: statistics; probability; elementary functions. May not be taken for credit by students who have completed any of the following: NYS Regents Course II or equivalent; a mathematics course at the level of MA 105 or above; a 200-level statistics course.

Prerequisite: N.Y.S. Regents Course I or equivalent.

3 hours credit

MA 105. Precalculus I **A**

(Intended for students who need to take a calculus course and did not complete N.Y.S. Regents Course III or did not perform well in this course. Not open to students who have completed MA 106 with a grade of C- or better or who have completed a calculus course.) Algebraic, exponential, and logarithmic functions with an emphasis on multi-step problem solving and on those skills necessary for success in calculus, such as finding intercepts, finding points of intersection, testing for symmetry, and shifting and/or reflecting graphs; also covers systems of equations and inequalities. Review of high school algebra and geometry as needed.

Prerequisite: N.Y.S. Regents Course II or equivalent.

3 hours credit

MA 106. Precalculus II **A**

(Intended for students who need to take a calculus course and need additional preparation. Not open to students who have completed a calculus course with a grade of C- or better.) A continuation of MA 105 covering additional classes of functions, including trigonometric functions, with the same strong emphasis on multi-step problem solving and on those skills necessary for success in calculus; also covers topics from analytic geometry. Review of concepts from MA 105 and high school trigonometry as needed.

Prerequisite: MA 105 or N.Y.S. Regents Course III or equivalent.

3 hours credit

MA 108. Mathematics for the Management, Life and Social Sciences **B**

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. Includes applications to biology, business, economics and the mathematics of finance.

Prerequisite: N.Y.S. Regents Course III or MA 105 or equivalent.

3 hours credit

MA 109. Honors Problem Solving **B**

Designed to engage promising mathematics students in solving problems related to calculus and its applications. Students are partitioned into small groups and given interesting and nontrivial problems to work on together. Students present solutions in class and are required to record their work in notebooks.

Corequisite: MA 123.

2 hours credit

MA 110. Mathematics in Action **A**

Emphasizes the real-world significance of mathematics and the applications of 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 II or equivalent.

3 hours credit

MA 117. Why Mathematics? **A**

Introduces the liberal arts student to the nature of mathematics and what mathematicians do. An emphasis on presenting ideas and mathematical concepts rather than on attaining computational skills. Ideas from algebra, geometry, number theory, set theory and topology are presented with emphasis on their history and relevance to other disciplines.

Prerequisite: N.Y.S. Regents Course III or equivalent.

3 hours credit

MA 120. Survey of Calculus I* **A**

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: Four years of college preparatory mathematics or MA 106.

3 hours credit

* Credit will not be given for both MA 120 and 122.

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 121 and 123.

MA 122. University Calculus I* **A**

Functions, limits, continuity, derivatives, inverse functions, antiderivatives; applications to rectilinear motion, graphing, maxima-minima, and related rates.

Prerequisite: four years of college preparatory mathematics or MA 106.

4 hours credit

* Credit will not be given for both MA 120 and 122.

MA 123. University Calculus II* **A**
 Definite integrals, the fundamental theorem of calculus, techniques of integration, applications of the definite integral in the physical sciences and geometry, indeterminate forms, improper integral, sequences and series.
Prerequisite: MA 122.

4 hours credit

* Credit will not be given for both MA 121 and 123.

MA 125. Software for Mathematics **B**

Introduction to software packages appropriate for use by mathematics students. Topics selected from, but not limited to: web browsers, scientific word processors, spreadsheet programs, computer algebra systems, and specialized packages such as Geometer's Sketchpad.

Corequisite: MA 121 or 123.

3 hours credit

MA 200. Statistical Ideas **A**

Introduction to the field of statistics, including sampling, experiments, measurement, descriptive statistics, probability, inference, correlation, regression and prediction. Emphasis on data and concepts rather than on calculations and mathematical theory.

Prerequisite: N.Y.S. Regents Course III or MA 105.

3 hours credit

Note: Only one statistics "200" course can be taken for credit.

MA 201. Structure of Number Systems **A**

(Course open only to majors in Elementary Education or students planning to teach in elementary school.) 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 **B**

(Basic course open only to majors in Elementary Education or students planning to teach in elementary school.) Fundamental concepts, structure, and operations of elementary modern algebra; fundamental concepts of informal geometry; also probability and statistics. Not open to freshmen.

Prerequisite: MA 201.

3 hours credit

MA 210. Discrete Mathematics **A**

Careful study of the foundations of mathematics needed for study of mathematics or computer science at the advanced undergraduate level. Topics from logic, set theory, elementary number theory, mathematical in-

duction, functions, relations, basic combinatorics.

Prerequisites: one year of college-level mathematics, including MA 120 or 122, and either MA 125, CS 105, CS 120 or CS 121.

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**

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 123.

3 hours credit

MA 231. Linear Algebra **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 or MA 121. MA 210 recommended.

4 hours credit

MA 315. Theory of Equations **D**

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.

Prerequisite: 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**

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.

Prerequisites: MA 210 and MA 223.

3 hours credit

MA 325. Numerical Analysis **B**

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; CS 106 or CS 121 or equivalent.

3 hours credit

MA 331. Abstract Algebra I **B**

Study of algebraic structures, such as groups, rings, integral domains, and fields. Basic homomorphism theorems for groups and rings are presented.

Prerequisites: MA 210 and MA 231.

3 hours credit

MA 332. Abstract Algebra II **C**

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. Number Theory **C**

Study of integers and their properties; divisibility; primes; congruences; multiplicative functions; quadratic residues; quadratic reciprocity; Diophantine equations.

Prerequisites: MA 210 and MA 231.

3 hours credit

MA 337. Combinatorics **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.

Prerequisites: MA 210 and MA 231.

3 hours credit

MA 341. Geometry **C**

Study of Euclidean geometry from both a synthetic and analytic viewpoint. Axioms for geometries; transformations; triangles and other basic shapes; constructions. Some consideration given to finite, neutral, and non-Euclidean geometries.

Prerequisites: MA 210 and MA 231.

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.

Prerequisites: MA 123 and MA 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.

Prerequisites: MA 231 and MA 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.

Prerequisites: MA 231, 350 and CS 106 or CS 120.

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 or 231.

3 hours credit

MA 381. History of Mathematics B

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. Independent Study 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.

Prerequisites: senior standing or permission of the instructor.

1 hour credit

MA 408. Special Topics Seminar D

Selected readings, discussions, and reports on topics in mathematics.

Prerequisite: permission of department.

1-6 hours credit

MA 420. Advanced Calculus B

Vector calculus; Jacobian matrices and their determinants; differentiation and integration

of differential forms and applications to physics; generalizations of the fundamental theorem of calculus, including Green's theorem, the divergence theorem, Gauss' theorem, and Stokes' theorem; potential theory.

Prerequisites: MA 231 and MA 323.

3 hours credit

MA 423. Topics in Analysis D

Topics vary, depending on the instructor, but may include measure and integration, basic functional analysis, complex analysis, residue theory, and special functions.

Prerequisites: MA 231 and 323.

3 hours credit

MA 440. Graph Theory D

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 traveling salesman problem, the optimal assignment problem, and scheduling algorithms.

Prerequisites: MA 210, MA 231 and CS 120.

3 hours credit

MEDIA ARTS

Office: 304 McEwen Hall
(716) 673-3823

E-mail: Mediaart@fredonia.edu

Carl Ferraro, Director

The Media Arts program explores linkages between the individual areas of graphic design, drawing and painting, theatre, music and communications, and how the essence of these disciplines are being transformed by computers and technology. This new program is designed to combine multimedia computer technology with traditional studies in communications and the fine and performing arts. The degree options have an interdisciplinary curriculum that emphasizes the design, concepts, theories, aesthetics and skills which underlie the domain of computer graphics and multimedia, digital/desktop audio and video production and postproduction. Media Arts students learn how to create computer mediated art, theatre and music, as well as how to develop and create CD-ROM titles, World Wide Web pages, and other interactive media applications for fields as diverse as: multimedia advertising and marketing, public relations, arts administration, audio engineering, multimedia design and production, imaging technologies in the visual

arts, digital photography, corporate communications, and motion graphics. In an increasingly competitive and changing work environment, Media Arts graduates will possess not only a unique set of hybrid skills, but a critical edge for leadership positions in the new digital marketplace.

The Media Arts program offers a Bachelor of Arts (B.A.) General Program in Media Arts, a Bachelor of Science (B.S.) in Corporate Multimedia, and Bachelor of Fine Arts (B.F.A.) degrees in each of the following: Media Arts/Theatre, Computer Art, Interactive Design, and Music/Sound Production.

The tracks have a common core of required courses distributed across the freshman, sophomore, junior and senior levels. The interdisciplinary component of the core is team-oriented and encourages collaboration across disciplines. The technical component of the core teaches operational descriptions and categories of multimedia, programming languages, interactive technology systems and software applications.

Listed below is a description of each of the individual tracks within the undergraduate degree program in Media Arts.

Requirements for the General Program in Media Arts (B.A.)

A general degree program that provides a balanced, comprehensive overview of the entire range of possibilities within each of the tracks, with the added benefit of incorporating an interdisciplinary pedagogy within a traditional liberal arts curriculum. This degree option, more general than the others, will afford excellent grounding for students interested in graduate studies or those seeking a career in areas such as traditional advertising and marketing, consumer product companies, interactive marketing, public relations, and arts administration.

Core Courses (30 credit hours)

MM 100	Media Arts Colloquium	3
MM 120	Multimedia Applications	3
MM 200	Systems, Languages and Protocols	3
MM 215	Interactive Design	3
MM 220	Sight, Sound and Motion	3
MM 441	Media Arts Practicum	3
MM 495	Capstone Practicum	6
CM 155	Rhetoric of Vision and Sound	3
CM 240	Computers in Corporate Communication	3

In addition to the core, the track requires three courses totaling 9 credit hours from each of three different tracks in the program (27 credit hours). These courses are selected in consultation with the student's advisor.

Requirements for Corporate Multimedia (B.S.)

The track is designed to respond to the evolving nature of corporate video production, corporate media production and corporate communications. Its purpose is to educate students in the development of modern corporate communications, education, "infotainment," and entertainment products. The track integrates new media production tools and techniques with the aesthetics of message/image design. Attention will be given to the corporate communications environment and the multimedia products which serve it. This includes intensive instruction in an integrated approach to multimedia production which addresses areas such as desktop presentation, publication, and video as well as interactive media products published to kiosk, CD-ROM, and the World Wide Web, or as used in computer-based training.

Core Courses (30 credit hours)

MM 100	Media Arts Colloquium	3
MM 120	Multimedia Applications	3
MM 200	Systems, Languages and Protocols	3
MM 215	Interactive Design	3
MM 220	Sight, Sound and Motion	3
MM 441	Media Arts Practicum	3
MM 495	Capstone Practicum	6

CM 155	Rhetoric of Vision and Sound	3
CM 240	Computers in Corporate Communication	3

In addition to the core, the track requires the following courses (39 credit hours): BA 164 Introduction to M.I.S.; AR 155 Two-Dimensional Design; EN 280 Introduction to Film; AR 353 History of Graphic Design; AR 361 Typography I; TA 114 Introduction to Performing Arts; CM 335 Business Communications; BA 350 Internet Arts; MM 300 Video Production for Media Arts; EN 368 Introduction to Public Relations; CM 357 Corporate Video Production; CM 375 Media Criticism; EN 281 Film/TV Analyses or EN 207 Drama and Film or EN 270 Introduction to Print Media or MM 300 Video Production for Media Arts.

B.F.A. students in the following tracks are required to maintain a 2.75 Grade Point Average in Media Arts courses and pass a review of their portfolio work at the end of the sophomore year.

Requirements for Media Arts/Theatre (B.F.A.)

The track is designed to combine traditional theatre training with the multimedia capabilities of the computer in a way that provides a solid foundation in the traditional theatre arts, while simultaneously preparing students to employ new computer technologies in the creation of multimedia productions in live performance, for delivery and distribution through the World Wide Web, and also for capture and distribution on CD-ROM. Computer technology is expanding every aspect of theatre arts, and the potential for students interested in theatre to explore new and innovative methods of producing plays and performances is expanding rapidly. It includes such fields as the development of interactive games and stories, digital storytelling, interactive advertising, and multimedia shows, as well as cutting-edge technology within theatre itself.

Core Courses (48 hours)

MM 100	Media Arts Colloquium	3
MM 120	Multimedia Applications	3
MM 200	Systems, Languages and Protocols	3
MM 215	Interactive Design	3
MM 220	Sight, Sound and Motion	3
MM 300	Video Production for Media Arts	3
MM 320	Audio and Desktop Multimedia	3
MM 350	Media Arts Performance	6
MM 441	Media Arts Practicum	3
MM 495	Capstone Practicum	6
CM 155	Rhetoric of Vision and Sound	3
CM 240	Computers in Corporate Communication	3
TA 114	Introduction to the Performing Arts	3
AR 155	Two-dimensional Design	3

In addition to the B.F.A. core, the track requires additional courses selected from the following, in consultation with an advisor: EN 280 Introduction to Film; TA 117 Script Analysis; TA 121 Introduction to Technical Theatre; BA 350 Internet Arts; CM 375 Media Criticism; EN 281 Film/TV Analysis; EN 207 Drama and Film; TA 482 Directed Study: Playwriting; TA 441 Directing I; TA 133 Intro. To Acting; TA 230 Intro to Scene Study, 6 hours of general electives.

Requirements for Music/Sound Production (B.F.A.)

The track is intended for students who desire a specialization in the music and audio facet of multimedia production. For the Media Arts major, the track offers the following sequence of topics: an introduction to a variety of musical genres, musical styles and music theory, an overview of the audio engineering field including analog and digital multi-track recording and editing, synchronization, audio mixing, audio compression, analyses, and both musical and architectural acoustics, and; audio for multimedia production, including desktop presentations, video, sound design, sampling, MIDI, composition, and Internet applications.

Core Courses (42 hours)

MM 100	Media Arts Colloquium	3
MM 120	Multimedia Applications	3
MM 200	Systems, Languages and Protocols	3
MM 215	Interactive Design	3
MM 220	Sight, Sound and Motion	3
MM 300	Video Production for Media Arts	3
MM 320	Audio and Desktop Multimedia	3
MM 441	Media Arts Practicum	3
MM 495	Capstone Practicum	6
CM 155	Rhetoric of Vision and Sound	3
CM 240	Computers in Corporate Communication	3
TA 114	Introduction to the Performing Arts	3
AR 155	Two-dimensional Design	3

In addition to the B.F.A. core, the track requires courses selected from the following, in consultation with an academic advisor: MU 101 Music Theory for Non-majors I; MU 102 Music Theory for Non-majors II; MU 115 Music in Western Culture; MU 333 Musics of the World; MU 440 Electronic Music Composition I; MU 441 Electronic Music Composition II; ST 250 Recording Techniques I; ST 251 Recording Techniques II; ST 200 Sound Practicum I; ST 201 Sound Practicum II; PH 311 Acoustics I; PH 312 Acoustics II; MU 265 History of Jazz.

Requirements for Interactive Design (B.F.A.)

The track covers the range of software, tools and theories necessary for the development of the interactive designer. Students will study motion graphics, digital photography, web site development, programming and interactivity. The curriculum covers all aspects of the design process, including research, ideation, documentation, planning, analyses and form making. Students are provided a balanced synthesis of theory, practice and production in a track that links the areas of graphic design, communication and computer based media.

Core Courses (39 credit hours)

MM 100	Media Arts Colloquium	3
MM 120	Multimedia Applications	3

MM 200	Systems, Languages and Protocols	3
MM 215	Interactive Design	3
MM 220	Sight, Sound and Motion	3
MM 300	Video Production for Media Arts	3
MM 441	Media Arts Practicum	3
MM 495	Capstone Practicum	6
CM 155	Rhetoric of Vision and Sound	3
CM 240	Computers in Corporate Communication	3
TA 114	Introduction to the Performing Arts	3
AR 155	Two-dimensional Design	3

In addition to the B.F.A. core, the track requires courses selected from the following, in consultation with an academic advisor: AR 150 Drawing I; AR 151 Drawing II; AR 350 Drawing III; AR 155 Two-dimensional Design; AR 255 Photography I; AR 256 Photography II; AR 259 Graphic Design I; AR 260 Graphic Design II; AR 359 Graphic Design III; AR 360 Graphic Design IV; AR 353 History of Graphic Design; AR 361 Typography I; AR 362 Typography II; AR 366 Typography III; MM 320 Audio and Desktop Multimedia.

Requirements for Computer Art (B.F.A.)

The track emphasizes the creative process from inception to presentation, fosters intellectual and creative curiosity, critical aesthetic thinking and encourages fusion between different artistic disciplines. A traditional grounding in the traditional studio areas of drawing, painting, photography, and design is interfaced with the artistic potential of computers and other new imaging technologies. The track recognizes the creative possibilities of combining traditional studio practices with digital imaging and encourages cross-referencing between all of the visual arts.

Core Courses (39 hours)

MM 100	Media Arts Colloquium	3
MM 120	Multimedia Applications	3
MM 200	Systems, Languages and Protocols	3
MM 215	Interactive Design	3
MM 220	Sight, Sound and Motion	3
MM 300	Video Production for Media Arts	3

MM 441	Media Arts Practicum	3
MM 495	Capstone Practicum	6
CM 155	Rhetoric of Vision and Sound	3
CM 240	Computers in Corporate Communication	3
TA 114	Introduction to the Performing Arts	3
AR 155	Two-dimensional Design	3

In addition to the B.F.A. core, the track requires courses selected from the following in consultation with an academic advisor: AR 150 Drawing I; AR 151 Drawing II; AR 350 Drawing III; AR 370 Drawing IV; AR 155 Two-dimensional Design; AR 255 Photography I; AR 355 Photography III; AR 264 Printmaking II or AR 252 Life Drawing I; AR 441 Directed Study: Computer Painting; AR 441 Directed Study: Computer Drawing; AR 495 Independent Study: Computer Painting; AR 495 Directed Student: Computer Drawing; MM 300 Video Production for Media Arts; MM 320 Audio and Desktop Multimedia.

SUNY Fredonia is always trying to improve and upgrade the range and scope of its academic offerings, course sequencing and requirements for each of the Media Arts degree options. Because of this, it is mandatory that all Media Arts majors meet with their designated faculty advisor at least once per semester. In addition, all courses should be selected with the help and approval of an advisor.

In the list of courses below, to the right of each course name will be a letter indicating how often the particular course is offered. The key to course frequency is as follows:

- A** - Course offered every semester
- B** - Course offered every year
- C** - Course offered every other year
- D** - Course offered on occasion
- * Indicates Media Arts Core Courses

MM 100. Media Arts Colloquium* B

An introduction to interdisciplinary learning with a focus on the elements of desktop multimedia design, production and critique. Media Arts faculty, as well as guest lecturers from on and off campus will discuss their areas of expertise. An overview of related campus resources will be presented.
Prerequisite: Media Arts majors only.

3 hours credit

MM 120. Multimedia Applications* **B**

The course introduces students to the core applications used in creating multimedia content. The applications range from Microsoft applications to the Adobe suite of programs for video and graphics production. Alternative software will also be explored as the course will attempt to remain current with market and industry standards for personal and business use.

Prerequisite: Media Arts majors only.
3 hours credit

MM 200. Systems, Languages and Protocols* **B**

The course is designed to be an in-depth look at some of the more common computer systems, languages and protocols used by today's personal computer systems. Students will learn the fundamentals of operating systems, scripting languages, protocols which allow computers to talk to each other, and the various terms involved with computer hardware and software issues.

Prerequisite: Media Arts majors only.
3 hours credit

MM 215. Interactive Design* **B**

The course is the introductory course to creating full-fledged multimedia applications. Students will gain experience in the concepts of interactivity and in creating stand-alone, interactive projects. Students will explore the basic concepts involved in authoring software.

Prerequisite: MM 120.
3 hours credit

MM 220. Sight, Sound and Motion* **B**

The course continues the work in understanding the aesthetic underpinnings of concepts in sight, sound and motion including the perceptual process at work as audiences interact with mediated messages. The course is especially attenuated towards extending traditional understandings of new media including contemporary applications in creative computing.

Prerequisite: CM 155.
3 hours credit

MM 250. Web Page Design **B**

The course is designed to introduce to the student the basic principles of designing web pages for the World Wide Web. Mixing traditional design concepts with web-based tools, students will learn how to code pages for the web across platforms. Students will also gain practice in the use of HTML, Java and CGI/Perl scripting.

Prerequisite: MM 120.
3 hours credit

MM 260. Drawing for New Media **D**

The class is offered as an introduction to electronic equivalents of traditional drawing and painting techniques. Students will become proficient in software applications such as Painter and Photoshop, and learn to capture drawings/paintings created with traditional studio techniques using scanners, digital cameras, film recorder and direct input (electronic drawing tablet). The course also recognizes that good technology will not save a bad idea. Consequently, students will use drawing to stimulate visual thinking that discovers, clarifies, creatively amplifies and manipulates the development of ideas and concepts.

Prerequisite: AR 151 or permission of instructor.
3 hours credit

MM 300. Video Production for Media Arts* **B**

An introduction to the concepts and tools involved in digital video production. This includes analog to digital conversion, production related aspects of compression and storage, and computer-based video editing. An introduction to Adobe Premiere, digital editing software, will be followed by training on a Media 100 advanced digital editing system.

Prerequisite: MM 120.
3 hours credit

MM 310. Media Criticism **D**

The study of selected theories and methods of criticism relevant to the evaluation of mediated message genres from a communication perspective. Emphasis is placed on applying critical perspectives to the criticism of film and electronic media.

3 hours credit

MM 320. Audio and Desktop Multimedia* **D**

A course designed for Media Arts sound production majors and other students with a strong interest and background in composition, multimedia, audio and MIDI. A project-oriented course focusing on audio design, analysis, and integration as it applies to multimedia authoring, motion video, and web content creation.

Prerequisites: Media Arts majors: ST 200, 201, 250, 251.

3 hours credit

MM 330. Special Topics in Media Arts **D**

Selected areas of Media Arts supplementing the regular program offerings.

Prerequisites: Media Arts major and permission of the department.

1-3 hours credit

MM 350. Media Arts Performance **B**

The course concentrates on the production and public performance/installation of a work of new media. Types of media performances can include multimedia plays, performance art, artistic installation, streaming live Internet performance or web-based performance. Students will be involved in intensive work dealing with the design and execution of streaming video and/or audio, photography and sound mixed with live performance.

Prerequisites: Media Arts major or by permission.

6 hours credit

MM 440. Directed Study in Media Arts **A**

Directed work in specific areas of Media Arts, stressing depth of enquiry. Student meets with designated faculty member on a regular basis throughout the semester after filing an acceptable plan for the proposed project.

Prerequisites: Media Arts major and permission of the department.

1-3 hours credit

MM 441. Media Arts Practicum* **B**

The course is team-taught by instructors in the Media Arts program and is designed as a preparatory course for MM 495 Media Arts Capstone Practicum. Students will function in teams selected from the various tracks in Media Arts, with each team creating three multimedia projects for faculty and peer review. Projects could be defined by each team or assigned by faculty. The assigned projects will be designed to serve either the college community or be for a local charity, outside business or group, either commercial, artistic, or not-for-profit.

Prerequisite: Media Arts major.
3 hours credit

MM 490. Independent Study Media Arts **B**

Independent work in specific areas of Media Arts, stressing depth of inquiry and development of topic. Subject of study chosen in consultation with Media Arts faculty/advisor.

Prerequisites: Media Arts major and permission of department.

1-3 hours credit

MM 495. Capstone Practicum* **B**

Students work in teams consisting of one student from each track in the Media Arts program. Each group will work on an assigned multimedia project, or after approval from a faculty mentor, work on a project identified by and agreed on by the group as a whole.

Prerequisite: MM 441.

6 hours credit

MEDICAL TECHNOLOGY/ BIOMEDICAL RESEARCH TECHNOLOGY

(see also Biology)

Office: 112 Jewett Hall

(716) 673-3283

E-mail: Medtech/biomed@

fredonia.edu

Biomed@fredonia.edu

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 five 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. Students interested in applying to medical school should refer to the Pre-Medicine section on page 123.

The innovative combination of a traditional program track in Medical Technology with a unique track in Biomedical Research Technology gives the graduate of the SUNY 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 I: 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, pharmaceutical and instrumen-

tal sales. The curriculum requires the student to study three years at SUNY Fredonia 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. Entrance to the clinical program is highly competitive and based on a minimum 3.0 GPA and letters of recommendation. 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 SUNY 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 96 percent over the past 12 years.

Under affiliation agreements entered into by the college, the training of students takes place under the direction of the persons at the following hospitals:

Michael F. Briselli, M.D., medical director, Medical Technology Program, Rochester General Hospital, Rochester, N.Y.

Kathryn Kutschke, M.S., MT (ASCP), program director, WCA Hospital, Jamestown, N.Y.

Stephen Johnson, M.S., MT (ASCP), program director, St. Vincent's Hospital, Erie, Pa.

Kenneth Jurgens, M.D., medical director, St. Vincent's Hospital, Erie, Pa.

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.

P.A. Remegio, M.D., medical director, Catholic Medical Center, Woodhaven, N.Y.

Nancy Mitchell, 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.

Ann-Paula Zero, M.S., MT (ASCP), program director, Catholic Medical Center, Woodhaven, N.Y.

Track II: This option is recommended for students interested in graduate school and for medical laboratory technicians (A.A.S.) wishing to complete a B.S. degree program. The student must complete the course work required in Track I, as well as a concentration of 22 credit hours. Required courses in the concentration include: CH 317, 327, BI 340, and a statistics course. The remaining concentration courses are directed toward the career goal of the student.

Track III: 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 144-145	Animal Biology and Evolution & Lab	4
BI 221	Human Anatomy	3
BI 241-242	Introductory Cell Biology & Lab	4
BI 256	Intro. to Clinical Sciences	1
BI 333-334	Biochemistry & Lab	4
BI 335	Genetics	3
BI 336-337	Mammalian Physiology & Lab	4
BI 338	Microbiology	3
BI 344	Parasitology	1
BI 431	Senior Seminar	1
BI 453	Basic Hematology	1
BI 461	Immunology and Serology	3

Clinical Internship or Biomedical Research Concentration 30 22

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 Survey of Calculus I or University Calculus I 3 or 4
 MA 122 University Calculus I
 PH 121-122 College Physics I & II and PH 123-124 (Labs) or University Physics I & II and PH 232-233 (Labs) 8
 PH 230-231 University Physics I & II and PH 232-233 (Labs)
 BA 164 or BA 300, or CM 221, or PY 347, or SO 326 30 or 31

Chemistry and mathematics courses should be completed by the end of the sophomore year, physics courses by the end of the junior year.

In the list of courses below, 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

BI 256. Introduction to Clinical Science A

A course designed to acquaint sophomores with various career opportunities available in medical technology. Educational requirements and professional responsibilities are also discussed. Small group discussions of clinical literature, and a tour of a hospital lab are featured.
Prerequisite: BI 131.

1 hour credit

MT 490-491. Medical Technology Clinical Internship Science A

A full year program of study conducted at a N.A.A.C.L.S.-approved hospital medical technology program, typically one of the five programs with which Fredonia is affiliated. Students attend lectures and perform lab tests under the instruction and supervision of certified lab scientists and physicians. Upon successful completion of the internship, students receive certification as a medical technologist, are eligible to take the board exams offered by the American Society of Clinical

Pathologist and are eligible to work as medical technologists in a variety of laboratory settings.

Prerequisite: Senior standing, completion of MT core curriculum, GCP, and a cumulative 3.00 GPA.

15 hours credits per semester/
two semester program

Other course descriptions for the major are listed in the biology section on page 14.

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.

MULTIETHNIC STUDIES

(interdisciplinary minors only)

African American Studies

Office: E308 Thompson Hall (716) 673-3883
 E-mail: Ethnic@fredonia.edu
Najia Arim, Coordinator

Latino Studies

Office: 237 Fenton Hall (716) 673-3847
 E-mail: Ethnic@fredonia.edu
C. Andrea Herrera, Coordinator

The Multiethnic Studies program is designed to meet the college's commitment to multiculturalism, interdisciplinary teaching, and academic diversity. The program's emphasis on "a global perspective," "socio-ethical understanding," and "international and multicultural studies" exactly corresponds with the SUNY Fredonia Vision Statement and the college's mission to prepare students to be able to work with a diverse people in what has increasingly become a world economy. In addition, the program supports the college's commitment to diversity and Affirmative Action and the president's efforts to recruit and retain students of color. The program, undergoing constant growth and development, currently consists of African American Studies and Latino Studies. These are interdisciplinary examinations of African American and Latino cultures from many perspectives. These broad liberal arts minors are designed to give students a more complete understanding of "minority" cultures in the United States and the African American, Afro-Caribbean, Indigenous and Latino traditions of the Americas, as well as the history and nature of race and ethnicity in the United States and other multiracial societies. The courses provide a useful perspective for students majoring in disciplines leading to careers in the global market and arena, especially international business, commerce, government and education.

Requirements for the Minor in African American Studies

Required: 21 credit hours from the following. Students declaring an African American Studies minor may use past courses retroactively after consultation with the coordinator. IS 220 Introduction to Ethnicity and Race should be taken prior to other courses.

Required Course (3 credit hours):
IS 220 Introduction to Ethnicity and Race 3

Core Courses (9 credit hours):
HY 333 African American History: From African Origins to Reconstruction 3

HY 334 African American History: From Reconstruction to the Present 3

Plus one of the following: 3

EN 299 Introduction to African American Literature

EN 340 Black Women Writers

MU 267 African American Music

Electives (6 credit hours - two courses; one in each of two disciplines; must not include a course that has been used for core course credit):

AN 324 Anthropology of the Caribbean

DA 231 Afro Caribbean Dance

EN 296 Sex, Violence and Racism in American Literature and Culture

EN 299 Introduction to African American Literature

EN 340 Black Women Writers

EN 395 Caribbean Literature

HY 387 Comparative Slave Societies

FL 400 Special Topics (with approval of coordinator)

LS XXX At the appropriate ability level (LS 115, 116, 215 or 216)

LF XXX At the appropriate ability level (LF 115, 116, 215 or 216)

MU 265 History of Jazz

MU 267 African American Music

PL 446-449 Selected Problems in Philosophy (with approval of coordinator)

PS 371 Civil Rights and Liberties

SO 316 Minority Groups (Prerequisite: SO 116)

Capstone Course (3 credit hours):

IS 400 Independent Study: African American Topics or 3

IS 401 Internship: African American Organization

Total: 21 hours

Requirements for the Minor in Latino Studies

Required: 21 to 24 credit hours from the following. Students declaring a Latino Studies minor may use past courses retroactively after consultation with the coordinator. IS 220 Introduction to Ethnicity and Race should be taken prior to other courses. "Latino" has been defined broadly to include not only Spanish speaking minorities in the United States, but the Indigenous and Latin American (including Portuguese speaking Brazilians) background of Latinos and Latinas in the United States.

Required Course (3 credit hours):
IS 220 Introduction to Ethnicity and Race 3

Core Courses (9-12 credit hours):

Note: Students are required to take two semesters of language, unless otherwise advised by the program coordinator, and one course from each of the remaining groups listed below - Literature and History. All courses from the Department of Foreign Languages and Literatures designated FL are taught in English with the exception of FL 400 Special Topics, which may be taught in Spanish or English, as determined by the instructor; all courses designated LS are taught in Spanish. Prerequisites are listed in parenthesis after each course.

Language:

LS 115-116 Elementary Spanish

LS 215-216 Intermediate Spanish

LS 317 Spanish Conversation (as advised, 216 or equivalent)

LS 421 Advanced Spanish, Phonetics and Diction (as advised)

Literature:

EN 395 Caribbean Literature

EN 399 Special Topics: Colonial/Post-Colonial Literature and Theory or U.S. Latino/Latina Writers*

FL 327 Sex and Magic in Latin American Literature

LS 315 Introduction to Hispanic Literature (LS 216 or equivalent)

LS 325 Survey of Spanish-American Literature (LS 315 or equivalent)

LS 425 Spanish-American Fiction (LS 324, 325 or equivalent)

History:

HY 285 Indigenous America: Aztecs and Their Neighbors

HY 380 History of Mexico I (completion of GCP parts I and II or 6 credit hours of history)

HY 381 History of Mexico II (completion of GCP parts I and II or 6 credit hours of history)

HY 382 History of Latin America I (completion of GCP parts I and II or 6 credit hours of history)

HY 383 History of Latin America II (completion of GCP parts I and II or 6 credit hours of history)

HY 480-484 Topics in Latin American History*

Electives (6 credit hours; two courses, one in each of two disciplines):

AN 324 Anthropology of the Caribbean (AN 115)

EN 395 Caribbean Literature

EN 399 Special Topics: Colonial/Post-Colonial Literature and Theory or U.S. Latino/Latina Writers*

FL 327 Sex and Magic in Latin American Literature

FL 400 Special Topics in Foreign Languages*

HY 285 Indigenous America: Aztecs and Their Neighbors

HY 380 History of Mexico I (completion of GCP parts I and II or 6 credit hours of history)

HY 381 History of Mexico II (completion of GCP parts I and II or 6 credit hours of history)

HY 382 History of Latin America I (completion of GCP parts I and II or 6 credit hours of history)

HY 383 History of Latin America II (completion of GCP parts I and II or 6 credit hours of history)

HY 480-484 Topics in Latin American History*

LS 215 Intermediate Spanish

LS 216 Intermediate Spanish

LS 315 Introduction to Hispanic Literature

(LS 216 or equivalent)

- LS 317 Spanish Conversation (LS 216 or equivalent)
- LS 325 Survey of Spanish-American Literature (LS 216 or equivalent)
- LS 421 Advanced Spanish, Phonetics and Diction (as advised)
- LS 425 Spanish-American Fiction (LS 324, 325 or equivalent)
- MU 350 Special Topics: Latin American Music*
- PS 371 Civil Rights and Liberties (PS 120 or 276 or permission of the department)
- SO 316 Minority Groups (SO 116)
- SO 350 Special Topics: The Puerto Rican Experience* (SO 116)

Capstone Course (3 credit hours):

- IS 400 Independent Study: Latino Topics or 3
- IS 401 Internship: U.S. Latino Organizations (e.g. Hope Foundation in Dunkirk, N.Y.; Irma Lopez, director)

Total: 21-24 hours

*All Special Topics courses will contain a pre-approved (by coordinator) percentage of Latino content material in order to contribute to the minor.

In the list of courses below, 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

IS 220. Introduction to Ethnicity and Race **B**

Interdisciplinary beginning course on race and ethnicity in the United States and other contemporary multiethnic/multiracial societies.

3 hours credit

IS 400. Independent Study **D**

Intensive individual study of some aspect of multicultural studies involving a paper or project in support of the findings. Results to be communicated to faculty and students in a public forum.

Prerequisite: permission of coordinator.

3 hours credit

IS 401. Internship **D**

Approved and supervised work-training experience in a multiethnic organization. Re-

sults to be communicated to faculty and students in a public forum.

Prerequisite: permission of coordinator.

3 hours credit

MUSIC

Office: 1004 Mason Hall
(716) 673-3151

E-mail: Music@fredonia.edu

Peter J. Schoenbach, Director

Wade Weast,

Interim Associate Director

Barry M. Kilpatrick,

Assistant Director

Curricular Area Chairpersons:

Music History/Literature

James A. Davis

Music Theory

Wade Weast

Sound Recording Technology

Wayne Myers, Interim

Music Education

W. Stephen Mayo

Music Therapy

Constance E. Willeford

Music Composition

Donald J. Bohlen

Applied Studies

Phyllis O. East, Keyboard

Karolyn H. Stonefelt,

Percussion/Harp

John C. Gillette, Woodwind

Harry P. Jacobson, String

Marc J. Guy, Brass

David Evans, Voice

The Fredonia 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 program 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 have essentially the same course work. In the first semester all freshmen take Music Convocation. This 1 credit hour course meets once a week in order to explore the music program and professional options after graduation and to introduce world musics. Guests include faculty, alumni, and other professional musicians who talk about their lives and jobs. 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 freshman Music student must review the declaration of a major.

The next section describes a 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.

Core Curriculum: 35 credit hours

MU 001	Music Convocation	1
MU 100	Recital Seminar	0
MU 120	Concert Attendance	0
MU 019-020	Ensembles	0
MU 105-106	Applied Music (125-126 for Mus.B. Music Education and Performance)	4
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	Applied Musicianship 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		35
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
		43

A. For a Major in Applied Music, Instrumental (47 credit hours):

<i>General Requirements</i>		43
MU 400	Recital Seminar	0
MU 405-406	Applied Music	4
Graduation Recital		0

B. For a Major in Applied Music, Voice (49 credit hours):

<i>General Requirements</i>		43
MU 137-140	Diction for Singers	2
MU 400	Recital Seminar	0
MU 405-406	Applied Music	4
Graduation Recital		0

Note: Voice students in the Applied Music degree program are strongly encouraged to complete the same language requirement as performance majors (see page 100), thus utilizing foreign language offerings to partially complete the required 75 hours outside the major area.

C. For a Major in Theory of Music/Composition (52 hours):

<i>General Requirements</i>		43
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

For program description and requirements, see page 109.

Bachelor of Science Degree in Sound Recording Technology

For program description, requirements, and ST course descriptions, see page 135.

Bachelor of Music Programs in Music Education

For the 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 (the Liberal Arts and Sciences Test—LAST, and the Assessment of Teaching Skills—Written Test—ATS-W or the National Teacher Exam—NTE), and a Child Abuse Seminar for all students being recommended for teaching certification in music.

General Requirements:

Core Curriculum		35
MU 200	Recital Seminar	0
MU 217-218	Piano Class	2
MU 225-226	Applied Music	4
MU 231-232	Conducting III & IV	4
MU 300	Recital Seminar	0
MU 325-326	Applied Music	4
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
		70

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 203-204, 210-211, 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 415-416, ME 203-204, 210-211, 301, 302, 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 137-138, 139-140, 317-318, 417, ME 210-211, 301, 302, 391-392. Music Education electives by advisement. A minimum of six of the twelve ensemble participations must be in choral ensembles.

For General Music Kindergarten through Eighth Grade 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 415-416, ME

210-211, 301, 302, 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. 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. Successful completion of competency examinations on specified secondary instruments. Music Education electives by advisement.

A minimum of four of the twelve ensemble participations must be in instrumental ensembles. A minimum of two semesters Secondary Applied (MU 315/316) or other approved private study on an orchestral instrument (woodwind, brass, string, or percussion).

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, with no grade less than D+;
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 in 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 to not participate in any college courses or formal (School of Music sponsored) extracurricular activities during the professional semester;
2. No graduation recitals, opera roles, concerto or equivalent curricular performances are permitted on the part of Music Education majors during the professional semester;
3. Students are urged to avoid, if at all possible, other regular obligations, such as jobs, during the professional semester; student teachers often must stay after school for rehearsals and return evenings for rehearsals and concerts.

Bachelor of Music Program in Composition

The major in Composition requires 79 credit hours in music, including the following:

Core Curriculum		35
MU 100-400	Recital Seminar (Composition)	0
MU 200-300	Recital Seminar (Performance)	0
MU 127-128	Applied Music (Comp.)	2
MU 225-226	Applied Music (Comp.)	4
MU 325-326	Applied Music (Comp.)	4
MU 425-426	Applied Music (Comp.)	4
MU 217-218	Piano Class	2
MU 205-206	Applied Music (Performance)	4
MU 401	Orchestration	3
MU 403	20th Century Counterpoint	3
MU 440	Comp. in Electronic Media I or	3
MU 441	Comp. in Electronic Media II or equivalent electronic media courses	3
MU 491	Senior Project in Composition	3
Composition classes		12

One ensemble for each semester of enrollment, including at least two vocal ensembles.

Four participations in contemporary performance ensembles

Senior composition recital

Completion of 20th century repertoire examination

Plus 15 to 18 hours of elective course work, must be selected from a list maintained by the Chair of the Composition Area in the School of Music (at least 12 credit hours of which will fulfill GCP requirements).

Bachelor of Music Programs in Performance

General Requirements:

Core Curriculum		35
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 and Senior Recitals		0
		63

For a Major in Performance, Percussion (71 credit hours)

<i>General Requirements</i>		63
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, Piano Pedagogy (73 credit hours)

<i>General Requirements</i>		61
Piano literature and pedagogy		5
ME 250	Foundations of Music Education I	3
MU 470	Suzuki and Pace Methods	4
Fourteen participations in ensembles, including four in chamber ensembles		
MU 415-416	Piano Class	2

For a Major in Performance, Piano (70 credit hours)

<i>General Requirements</i>		63
Piano literature and pedagogy		5
Fourteen participations in ensembles, including four in chamber ensembles		
MU 415-416	Piano Class	2

For a Major in Performance, Stringed Instruments (71 credit hours)

<i>General Requirements</i>		63
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MU 217-218 Piano Class	2
MU 355-356 Performance Practicum	0
String literature and chamber music literature	

or 6

Music theory and literature/history elective
 Fourteen participations in ensembles, including four in chamber ensembles

For a Major in Performance, Voice (80 credit hours)

General Requirements 63

MU 137-140 Diction for Singers	2
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*

A minimum of two semesters of German and a minimum of two semesters of one of the Romance languages (French, Italian or Spanish).

For a Major in Performance, Wind Instruments (71 credit hours)

General Requirements 63

MU 217-218 Piano Class	2
MU 355-356 Performance Practicum	0
Music theory elective	3
Music history 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 of 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 American Music Therapy Association, Inc. 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 35

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	
ME 291 Technology in Music	
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	1

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 and Materials in Music Therapy	3
MY 422 Psychological Research in Music	3
MY 450 Internship in Music Therapy	0
BI 121 Human Anatomy	3
ED 225 Developmental Psychology	3
ED 250 Into. 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

RELATED PROGRAMS

Music Business

For description of this interdisciplinary program, see page 110.

Requirements for the Minor in Music

Thirty (30) credit hours. Applicants for the Music minor must achieve an acceptable score on the School of Music Aural Skills Test prior to admission to the program: MU 121-122, 123-124 (or 101-102), 160, 252, 255; four semesters of MU 104; four participations in ensembles; and 9 credit 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).

Music Concentration of the B.S. in Elementary Education (32 hours)

MU 121-122 Aural Theory	4
MU 123-124 Written Theory	4
choose any four Music History courses	12
ME 315 Music, Play and Self	3
MU 450-451 Directed Studies	4
Choose any three Piano Class courses (beginning with MU 118)	3
Choose either Guitar Classes (ME 210-211) or Social Instruments (MY 270)	2

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 104 Applied Music Class for Non-Majors
 MU 115 Music in Western Culture
 MU 262 American Music
 MU 265 History of Jazz
 MU 267 African American Music
 MU 269 Music Criticism
 MU 333 Musics of the World
 ME 315 Music, Play, and Self

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.

Approved Music Theory Electives for Majors

- MU 237-238 Composition Seminar
 MU 403 20th Century Counterpoint
- MU 337-338 Composition Seminar
 MU 354 Form and Analysis
 MU 361 Jazz Improvisation
 MU 372-379 Special Topics in Music
 MU 401 Orchestration
 MU 404 Choral Arranging
 MU 437-438 Composition Seminar
 439
 MU 440-441 Composition in Electronic Media I and II

Approved Music History Electives for Majors

- MU 262 American Music
 MU 265 History of Jazz
 MU 267 African American Music
 MU 269 Music Criticism
 MU 333 Musics of the World
 MU 350 Special Topics in Music
 MU 351 Independent Study in Music History
- MU 383 French Song
 MU 387 German Song
 MU 408 History and Literature of the Wind Band
- MU 420 Piano Literature
 MU 424 History of Opera
 MU 433 Romanticism and Music
 MU 453 Baroque Period in Music
 MU 454 Classical Period in Music
 MU 455 Romantic Period in Music
 MU 456 Modern Period in Music

In the list of courses below, 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

MUSIC COURSES

MU 019-020. Music Ensembles **B**

All music students participate in the college music ensembles (described on page 146), 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 or composition. Students perform or critique performance or composition of colleagues during one recital-seminar each week. Recital schedule rotated: one week, studio; next week, area; following, school recitals.

Corequisite: enrollment in private applied music instruction (MU 105-106, 125-126).

0 hours credit

MU 101-102. Music Theory for Non-Majors **B**

For students with little or no background in music. Course deals with beginning and rudimentary aspects of music including clefs, scales, chords, key signatures, melody, harmony, ear training, and aural perception.

3 credit hours each semester

MU 104. Applied Music Class for Non-Music Majors **D**

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 105-106. Applied Music Major **A**

Weekly half-hour private applied instruction for music majors in Bachelor of Arts and Bachelor of Science degree programs. See MU 125-126 for further information about the requirements of specific studios.

2 hours credit each semester

MU 107. Double Reed Class I **B**

(Required for all freshman oboe majors.) The beginning fundamentals of reed making are covered including formation of a blank and rudimentary scraping skills.

1/2 hour credit

MU 108. Double Reed Class II **B**

(Required for all freshman oboe majors.) A continuation of Class I. The course covers

shaping, gouging and refinement of scraping skills.

Prerequisite: MU 107 or permission of instructor.

1/2 hour credit

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, Intermediate **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 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 116. Conditional Applied Major **A**

Instruction in voice, keyboard, and orchestral instruments for those music majors not eligible to enroll in MU 125 (or 105) Applied Music Major. A student may enroll for this course twice.

Prerequisites: audition and acceptance.

2 hours credit each semester

MU 117-118. Piano Class, Elementary **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 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 121. Aural Theory I **A**

Course deals with various aspects of ear training including melodic, harmonic, and formal perception as well as sight-singing skills.
Prerequisite: permission of the 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 as well as sight-singing 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 the 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 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, Cello, Clarinet, Classical Guitar, Double Bass, Euphonium, Flute, French Horn, Harp, Oboe, Percussion, Piano, Saxophone, Trombone, Trumpet, Tuba, Viola, Violin, Voice.***

Corequisite: MU 137-138, 139-140

2 hours credit each semester

MU 127-128. Applied Music (Composition) **A**

Weekly half-hour private applied instruction for music majors in Bachelor of Music - Composition degree program.

1 hour credit

* In addition to the one-hour lesson per week, piano students are required to have a minimum of four and a maximum of seven semesters of satisfactory participation in the ensemble listed in the course offerings as "Piano Ensemble."

**All freshmen who take studio voice lessons (private vocal instruction) are required to take Lyric Theatre Workshop Practicum for one semester their freshman year.

† 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 ensemble, utilizing the student's principal applied major, every semester that he/she receives applied instruction in that major applied area.

MU 131-132 Applied Musicianship **A**

Corequisite with MU 121-122. Study of solfege and conducting as basic tools of musicianship.

1 hour credit

MU 137-140. Diction for Singers **B**

A two-semester sequence intended to give singers an 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 160. History of Western Music: Antiquity to 1750 **A**

Study of music history from antiquity to the end of the Baroque period.

3 hours credit

MU 200. Recital Seminar **A**

Required of all sophomore music majors enrolled in private applied music instruction or composition. Students perform or critique the performance or composition of colleagues during one recital-seminar each week. Recital schedule rotated: one week, studio; the next week, area; and the following week, school recitals.

Corequisites: 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 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 217. Piano Class, Intermediate **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, Intermediate **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 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 sight-singing 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 in

cluding melodic, harmonic, and formal perception as well as sight-singing 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 225-226. Applied Music A Major

*Bassoon, Cello, Clarinet, Classical Guitar, Double Bass, Euphonium, Flute, French Horn, Harp, Oboe, Percussion, Piano, Saxophone, Trombone, Trumpet, Tuba, Viola, Violin, Voice.**

Prerequisite: MU 126.

2 hours credit each semester

MU 231. Conducting I B

Basic conducting technique with 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.

2 hours credit

MU 232. Conducting II B

Continuation of skills developed in MU 231. 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.

2 hours credit

MU 235-236. Musical Theatre A Voice

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.

Prerequisites: 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 237-238. Composition B Seminar

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.

Prerequisites: MU 122-124 (or permission of instructor), to 237; 237 to 238.

2 hours credit each semester

MU 245-246. Performance Major A

*Bassoon, Cello, Clarinet, Classical Guitar, Double Bass, Euphonium, Flute, French Horn, Harp, Oboe, Percussion, Piano, Saxophone, Trombone, Trumpet, Tuba, Viola, Violin, Voice.**

Prerequisites: MU 126, and approval for study in the Bachelor of Music in Performance degree program.

4 hours credit each semester

* Regardless of curriculum, voice students must satisfactorily meet the requirements of a Sophomore Screening in order to continue instruction.

† See note page 102.

MU 252. History of Western Music: 1750-1875 B

Study of music history from 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 reviews of concerts and recordings.

Prerequisites: MU 115 or MU 160 or permission of instructor.

3 hours credit

MU 300. Recital Seminar A

Required of all junior-level music majors enrolled in private applied music instruction or composition. Students perform or critique performance or composition of colleagues during one recital-seminar each week. Recital schedule rotated: one week studio, the next week area, and following week school recitals.

Corequisites: enrollment in private applied music education (MU 305-306, 325-326, 335-336, 345-346).

3 hours credit

† MU 305-306. Applied Music A Major

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 A Study

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 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 325-326. Applied Music** **A**
Major
Bassoon, Cello, Clarinet, Classical Guitar, Double Bass, Euphonium, Flute, French Horn, Harp, Oboe, Percussion, Piano, Saxophone, Trombone, Trumpet, Tuba, Viola, Violin, Voice.
Prerequisite: MU 226.
2 hours credit each semester
- 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 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 337-338. Composition** **B**
Seminar
Original work in composition accompanied by study and analysis of past and contemporary musical compositions and creative concepts.
Prerequisites: MU 222-224 (or permission of instructor) to 337; 337 to 338.
2 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.
2 hours credit
- MU 344. Vocal Pedagogy** **D**
Introduction to the objective study of the art of singing. Findings from related sciences are applied to problems of vocal development and usage in the young child through the adult voice. Methods, procedures, and concepts of working with public school voices of all ages and mature voices in a voice studio setting.
3 hours credit
- MU 345-346. Performance Major** **A**
Bassoon, Cello, Clarinet, Classical Guitar, Double Bass, Euphonium, Flute, French Horn, Harp, Oboe, Percussion, Piano, Saxophone, Trombone, Trumpet, Tuba, Viola, Violin, Voice.
Prerequisites: MU 246, approval for study in Bachelor of Music in Performance degree program.
4 hours credit each semester
- †**MU 347-348. Applied Music** **A**
Recitation
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 350. Special Topics in Music** **D**
History
A course to permit music history instructors to initiate special studies in specialized subjects.
Prerequisites: MU 160, 252 and 255.
1 hour credit
- † See note page 102.
- MU 351. Independent Study in** **D**
Music History
An opportunity for a student to pursue a limited study under supervision. The study will usually result in a research-based term paper.
Prerequisites: MU 160, 252 and 255.
1 hour credit
- MU 354. Form and Analysis** **C**
Development of skills for analysis of musical form, from small song forms to large symphonic works.
Prerequisites: MU 222-224 or permission of instructor.
3 hours credit
- MU 355-356. Performance** **A**
Practicum
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 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 371. 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.
Prerequisites: ME 271 Clarinet Class and ME 272 Flute Class, or playing competence equivalent.
2 hours credit
- MU 372-379. Special Topics in** **D**
Music
Study of music areas supplementing but not replacing regular courses. Topics, credit hours, and instructor determined by school.
1-3 hours credit
- MU 380. The Business of Music** **C**
A comprehensive exploration of the various facets of the music business including careers in music, music publishing (copyrights, licensing, music books, exploitation of catalogue), the record business (recording, artist management, licensing, record distribution), tour management, self-employment business basics and ethics in the music business.
3 hours 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.
Prerequisites: MU 137-140 or permission of instructor.
2 hours 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 395. Business Fundamentals** **C**
and Personal Career
Management for Musicians
Business and marketing skills for the professional performing musician 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 or composition. Students perform or critique performance or composition of colleagues

during one recital-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 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. 20th Century Counterpoint 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 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.

Prerequisites: MU 222-224.

2 hours credit

†MU 405-406. Applied Music Major A

Weekly half-hour private applied instruction for Music majors in Bachelor of Arts in Applied Music degree program. See MU 425-426 for further information about the requirements of specific studios.

Prerequisite: MU 306.

2 hours credit each semester

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 415. Piano Class for Keyboard Majors B

Introductory course in functional piano for keyboard majors. Technical study of modal scales, harmonization using primary and sec-

ondary 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.

Prerequisites: 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 Non-Keyboard Majors A

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

† See note page 102.

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.

Prerequisites: MU 122-124, and 160, or permission of instructor.

3 hours credit

†MU 425-426. Applied Music Major A

Preparation for senior recital.

Bassoon, Cello, Clarinet, Classical Guitar, Double Bass, Euphonium, Flute, French Horn, Harp, Oboe, Percussion, Piano, Saxophone, Trombone, Trumpet, Tuba, Viola, Violin, Voice.

Prerequisite: MU 326.

2 hours credit each semester

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 435-436. Musical Theatre Voice A

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 437-438. Composition Seminar B

Free composition in seminar and semi-private consultations.

Prerequisites: MU 338 or permission of instructor; 437 prerequisite to 438.

2 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 440. Composition in Electronic Media I B

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.

Prerequisites: MU 122-124, and 160, or permission of instructor.

3 hours credit

MU 441. Composition in Electronic Media II B

Electronic music composed and realized using a variety of computer-related techniques. Covers digital recording and synthesis using MIDI and other digital audio hardware/software. Emphasis on MIDI and audio sequencing. Related topics include electronic orchestration, computer assisted software and algorithms, and literature.

Prerequisite: MU 122-124 (or basic theory training), MU 440 or permission of instructor.

3 hours credit

MU 445-446. Performance Major A
Preparation for senior recital.

Bassoon, Cello, Clarinet, Classical Guitar, Double Bass, Euphonium, Flute, French Horn, Harp, Oboe, Percussion, Piano, Saxophone, Trombone, Trumpet, Tuba, Viola, Violin, Voice.

Prerequisites: MU 346, approval for study in Bachelor of Music in Performance degree program.

4 hours credit each semester

†**MU 447-448. Applied Music A**
Recitation

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

† See note on page 102.

MU 450-451. Directed Studies A

Directed Studies in music. Designed exclusively for Elementary Education majors with a concentration in music. Includes voice proficiency, vocal instruction, observation of elementary music classrooms, and conducting.

2 hours credit each semester

MU 453. The Baroque Period in D
Music

Detailed study of styles, trends, and developments in music, 17th and 18th centuries through preclassic 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 D
Music

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 D
Music

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 per-

formance. Parallels between musical romanticism and romanticism in other arts.

Prerequisite: MU 252 or equivalent.

3 hours credit

MU 456. The Modern Period in D
Music

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

MU 458. The Cult of Elizabeth and D
Patronage in the Arts

For upper-level non-music majors. Course deals with understanding of the purposes of the Cult of Elizabeth in Renaissance England and to assess its effect on music and other arts of the age. With the Elizabethan patronage model as a foundation for understanding the relationships between governments and the arts, the present system of support for the arts will be assessed, debated and critiqued.

3 hours credit

MU 460-461. 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.

1-3 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.

2-6 hours credit

MU 476. Desktop Multimedia for B
Musicians

A course designed for musicians and music educators focusing on the preparation and integration of various elements (text, graphics, video, music) with the goal of producing interactive or self-running computer-based presentations. Related topics include: design and content issues, music and authoring software, media preparation and creation, and final delivery.

Prerequisites: ME 291 or relevant background in music and computer-oriented technologies and permission of instructor.

3 hours credit

MU 485. Audio and Desktop Multime- B
dia

A course designed for Media Arts Sound Production majors and other students with a strong interest and background in composition, multimedia, audio and MIDI. A project-oriented course which focuses on audio design, analysis, and integration as it applies to multimedia authoring, motion video, and web content creation.

Prerequisites: Media Arts majors: ST 200, 201, 250, 251, MU 441. For others: strong computer skills and some technical background and/or course work in audio and computer-related areas and permission of instructor.

3 hours credit

MU 491. Senior Project in A
Composition

An original composition representing the most mature work of the apprentice composer. Students with inclinations toward graduate work in music theory will also supply a complete written analysis of the final composition. The scope and content of all final projects are subject to the approval of the area chairperson.

Prerequisite: senior standing in B.A. theory program.

3 hours credit

MUSIC EDUCATION

ME 150. Introduction to Public B
School Music

The preliminary course for the Foundations of Music Education sequence combines an introduction to and exploration of the purposes and premises of music education. Class sessions seek to broaden students' perspectives of the profession and of the potential for a rewarding career in music education.

0 hour credit

ME 203. Intermediate Voice B
Class

Applied group instruction in voice. Emphasis on development of an individual's performance ability.

Prerequisite: MU 113 or equivalency audition with voice faculty.

1 1/2 hours credit

ME 204. Advanced Voice Class B

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, V7 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, V7 chords in the keys of A, F, B; secondary dominants; more advanced accompaniment patterns.

Prerequisite: ME 210 or placement test.

1 hour credit

ME 250. Foundations of Music Education I **B**

Emphasizes growth characteristics 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 through 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**

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 250 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 260. Brass Pedagogy **A**

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 compe-

tency requirements for trumpet and trombone.

1 hour credit

ME 261. Trumpet Class **A**

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. Students who already possess playing competence may examine out of the requirement and substitute another brass instrument in its place.

1/2 hour credit

ME 262. Trombone Class **A**

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. Students who already possess playing competence may examine out of the requirement and substitute another brass instrument in its place.

1/2 hour credit

ME 263. French Horn **A**

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 **A**

Group applied instruction on the tuba/euphonium designed to develop a playing competence sufficient to starting beginning level tuba/euphonium students in public schools.

1/2 hour credit

ME 270. Woodwind Pedagogy **A**

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 **A**

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. Students who already possess playing competence may examine out of the requirement and substitute another woodwind instrument in its place.

1/2 hour credit

ME 272. Flute Class **A**

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. Students who already possess playing competence may examine out of the requirement and substitute another woodwind instrument in its place.

1/2 hour credit

ME 273. Oboe Class **A**

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 **A**

Group applied instruction on the bassoon designed to develop a playing competence sufficient to starting beginning level bassoon students in public schools.

1/2 hour credit

ME 275. Saxophone Class **A**

Group applied instruction on the saxophone designed to develop a playing competence sufficient to starting beginning level saxophone students in public schools.

1/2 hour credit

ME 285. String Class **B**

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 291-292. 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 300. Foundations of Music Education III **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 demonstrate competence in working effec-

tively 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 through six.

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 through high school.

Prerequisite: ME 300.

Corequisite: ME 356.

3 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.

Prerequisites: 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.

Prerequisites: MU 232, ME 250 and 251, or permission of Area Chair for Music Education/Music Therapy.

Corequisites: 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.

Prerequisite: 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 315. Music, Play, and Self A

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 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 Techniques D

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 field-based instruction.

Prerequisite: junior or senior music major or permission of instructor

2 hours credit

ME 355-356. Practicum B

Continuation of previous practicum. S/U grade.

Prerequisite: ME 256.

0 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.

Prerequisites: 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 394-395. Public School Instrumental Conducting A

Methods and materials for starting and sustaining public school instrumental ensemble programs. Stressed are score preparation, advanced conducting problems, and the refinement of rehearsal skills suitable for public school instrumental ensembles.

Prerequisites: for ME 394, MU 232 or demonstrated equivalent ability. For ME 392, ME 391 unless waived in exceptional cases.

3 credit hours each semester

ME 400. Professional Semester A

Student teaching in selected public schools in western New York State under the supervi-

sion 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, senior standing, and successful completion of all competencies stated for the student's concentration.

14 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. Maximum of 6 credit hours of MU, ME, MY, or ST Directed or Independent study credit.

1-3 hours credit

ME 470-479. Special Topics in Music Education D

Studies of areas supplementing, not replacing, regular course offerings. Topics, credit hours, prerequisites and instruction determined by Music Education Area.

1-3 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 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.

2 credit hours

MY 270. Social Instruments A

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 AMTA-approved facility. All course work must be completed before internship begins.

0 hours credit

MUSICAL THEATRE

Department of Theatre and Dance
Office: 213 Rockefeller Arts Center
(716) 673-3596

Robert Klassen, *Chairperson*

School of Music
Office: 1004 Mason Hall
(716) 673-3151

Peter J. Schoenbach, *Director*
E-mail: Musicalt@fredonia.edu

The Department of Theatre and Dance and School of Music jointly offer study leading to the Bachelor of Fine Arts in Musical Theatre degree. This program is limited to those students who demonstrate excellence in acting, dance and singing and who are firmly committed to professional careers in musical theatre performance.

The Musical Theatre degree is accredited by the National Associations of the Schools of Music and the National Association of Schools of Theatre.

Admission to the Bachelor of Fine Arts in Musical Theatre Program

Candidates must be accepted academically by the Office of Admissions prior to auditioning. Students must audition during the year prior to entering Fredonia at designated audition dates. The auditions consist of acting, dance and singing. Audition information and application forms are available from either the Department of Theatre and Dance or the School of Music.

Transfer students should audition for the Musical Theatre degree the semester before transferring. The B.F.A. requires four years in the degree program for completion.

Additional Requirements:

In addition to the specific and individual courses, periodic reviews of achievement will be conducted for all candidates with the purpose of determining advancement or retention. The 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 public senior recital is presented in the fourth year. The recital must include performance in acting, dancing and singing, and must be between 45 and 50 minutes in length.

Students on academic probation will not be permitted to perform in public performances.

Students must select a specific track (Theatre/Dance or Music) upon entering the program.

Musical Theatre majors are required to complete Theatre Practice obligations (Theatre Arts) every semester, which are practical extensions of the classroom. Theatre Practice credits will not count to-

ward the total number of credits required in the B.F.A. major. Musical Theatre majors must successfully complete a minimum of 30 upper level credit hours.

For course descriptions, see Dance, page 38; Music, page 97; and Theatre and Dance, page 138.

Degree Requirements:

Theatre/Dance Track:

TA 101-102	Theatre Practice*	2
TA 110	Theatre Visiting Artists (required every semester, 0.5 credit hours)	4
TA 121	Intro. to Technical Theatre	3
TA 131	Acting Studio: Improvisation	3
TA 132	Acting Studio: Character Study	3
TA 201-202	Theatre Practice*	2
TA 220	Makeup	3
TA 231-232	Acting Studio: Scene Study I & II	6
TA 242-243	Acting Studio: Embodiment Levels I and II	6
TA 301-302	Theatre Practice*	2
TA 333	Acting Studio: Audition Technique	3
TA 353	History of Musical Theatre	3
TA 401-402	Theatre Practice*	2
TA 432	Acting Studio: Musical Theatre Styles	3
DA 111	Modern Technique I	2
DA 121	Beginning Tap Dance	3
DA 211	Modern Technique II	2
DA 221	Beginning Ballet	2
DA 311	Modern Technique III	2
DA 321	Dance for Musical Theatre	3
DA 363	Choreography	3
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 131-132	Applied Musicianship I & II	2
MU 137-140	Diction for Singers	2
MU 200	Recital Seminar	0
MU 217-218	Piano Class	2
MU 235-236	Musical Theatre Voice	6
MU 300	Recital Seminar	0
MU 335-336	Musical Theatre Voice	6
MU 400	Recital Seminar	0
MU 435-436	Musical Theatre Voice	6

Degree Requirements:

Music Track:

MU 001	Music Convocation	1
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 100	Recital Seminar (two semesters)	
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 Music	4
MU 131-132	Musicianship I & II	2
MU 137-138	Diction for Singers (I.P.A./Italian)	1
MU 139-140	Diction for Singers (German & French)	1
MU 160	History of Western Music: Middle Ages to 1800	3
MU 200	Recital Seminar (two semesters)	0
MU 217-218	Piano Class	2
MU 221-222	Aural Theory III & IV	4
MU 223-224	Written Theory III & IV	4
MU 235-236	Musical Theater Voice	6
MU 252	History of Western Music: 1800-1875	3
MU 255	History of Western Music: 1875-Present	3
MU 300	Recital Seminar (two semesters)	0
MU 317-318	Piano Class	2
MU 335-336	Musical Theatre Voice	6
MU 400	Recital Seminar (two semesters)	0
MU 417-418	Piano Class	2
MU 435-436	Musical Theatre Voice	6
TA 101-102	Theatre Practice*	2
TA 110	Theatre Visiting Artists (required four semesters, 0.5 credit hours)	2
TA 121	Intro. to Technical Theatre	3
TA 131	Acting Studio: Improvisation	3
TA 132	Acting Studio: Character Study	3
TA 201-202	Theatre Practice*	2
TA 220	Makeup	3
TA 231-232	Acting Studio: Scene Study I & II	6
TA 342-343	Acting Studio: Stage Voice I & II	6
DA 111	Modern Technique I	2
DA 211	Modern Technique II	2
DA 105	Folk Dance	1
DA XXX	Course to be determined by Advisement	2

MUSIC BUSINESS

1139 Mason Hall
(716) 673-3248
E-mail: Musicbus@fredonia.edu
Harry P. 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 relative elective subjects. Although no audition is required, students in Music Business should have a performance medium and 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.

This is an interdisciplinary model major program; for specific degree requirements unique to Interdisciplinary Studies, refer to page 82.

The Music Business curriculum requires a minimum of 59 hours of interdisciplinary course work in two groups, a core curriculum and an area of specialization. Developing this specialization in an internship for credit is highly recommended as well.

<i>Group I:</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	3
MU 252	History of Western Music: 1750 to 1875	
MU 117-118	Piano Class, Elementary and Intermediate	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	Applied Musicianship or electives in Jazz or Music History	2-3

* Do not count toward B.F.A. degree

MU 380	The Music Business	3
EC 200	Statistics (or any social science statistics course)	3
EC 201-202	Principles of Macro-Microeconomics	6
AC 201	Financial Accounting	3
AC 202	Managerial Accounting	3
AC 311	Business Law I	3
BA 164	Introduction to Management Information Systems	3
BA 315	Principles of Business Finance	3
BA 321	Management and Organizational Behavior	3
BA 325	Principles of Marketing	3
Total:		50-56

Group II: Concentration

Students in Music Business must complete a minimum of 9 credit hours from one of the following concentrations:

Communications/Public Relations

AR 259	Graphic Design I*	3
EN 368	Introduction to Public Relations	3
BA 165	Internet Arts	3
BA 235/	Introduction to Business	3
CM 235	Communication	
MU 475	Audio and Desktop Multimedia	3

Merchandising/Promoting

AA 400	Arts Administration Practicum	3
BA 165	Internet Arts	3
BA 340	Marketing Research	3
BA 342	Consumer Behavior**	3
BA 445	Integrated Marketing Communications	3
BA 446	Sales Management	3

* Prerequisite: AR 155 Two-dimensional Design or permission of instructor

** Prerequisite: BA 325 Principles of Marketing

PHILOSOPHY

Office: 2111 Fenton Hall
(716) 673-3495
E-mail: Phil@fredonia.edu

Kenneth G. Lucey, Chairperson

Philosophy is the study of the most basic questions one can ask about reality, human existence, knowledge, value, and meaning. It develops the skills of careful inquiry and

logical thinking which are the hallmarks of successful people in all walks of life. 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.

Numerous philosophy courses are designed to complement student majors in other fields including business, economics, computer science, art, film, music, theatre, criminal justice, legal studies, and the natural and social sciences. The philosophy department has advisement material available for students who wish to pursue an interest in philosophy in conjunction with these majors and minors.

Graduates with a degree in Philosophy typically go on to careers in areas such as law, business, public service, and creative writing.

The Fredonia Philosophical Society is a student initiated club organized for the purpose of holding extra-curricular discussions of a wide range of philosophical topics. The Fredonia Philosophical Society and the philosophy department co-sponsor external speakers of general interest. All meetings are open to any interested individuals.

Requirements for the Bachelor of Arts 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	3
	or	
PL 216	Intermediate Deductive Logic	3
	or	
PL 220	Intro. to Inductive Logic	
	and a history of philosophy course:	
PL 222	The Greek Way	3
	or	
PL 224	Medieval Thought	3
	or	
PL 226	The Age of Reason and Its Legacy	3
	or	
PL 326	The Age of Analysis: Philosophy Since 1900	3

A Model Program would include:

		Hrs.
PL 115	Philosophical Inquiry	3
PL 116	Intro. to Deductive Logic	3
PL 218	Intro. to Ethics	3
	or	
PL 265	Social and Political Thought	3
PL 345	The Meaning of Life	3
	or	
PL 350	Philosophy of Language and Semantics	3
PL 430	Philosophy of Mind	3
	or	
PL 438	Metaphysics: Reality and Existence	3
	or	
PL 440	Theory of Knowledge	3
	And related courses in one of the interest groups indicated above.	12
	<i>Seniors are strongly urged to take a seminar:</i>	
PL 446-449	Selected Problems in Philosophy	3
	or	
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.

Requirements for the Minor in Philosophy

Eighteen hours in philosophy with at least 9 credit 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, Cooperative Engineering, and Women's Studies programs. Refer to descriptions of these programs on pages 6, 53 and 143, respectively.

In the list of courses below, 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

PL 105. Philosophical Ideas**B**

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 concerns the study and practice of critical thinking. Through analysis of dramatic examples of the critical thinking skills necessary for effective 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. 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. The course aspires to reveal the rich diversity that comprises global philosophizing. Discussion class.

*3 hours credit***PL 116. Introduction to Deductive Logic****A**

The theory of deductive inference, truth-tables, and techniques for detecting fallacies.

*3 hours credit***PL 216. Intermediate Deductive Logic****D**

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 permission of instructor.

*3 hours credit***PL 218. Introduction to Ethics****C**

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**

Nature of inductive reasoning and its applications. Particular attention paid to 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 in the context 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**

Islamic, Judaic, and Latin-Christian thought of the Middle Ages, particularly the 11th to 13th centuries. 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 the world.

*3 hours credit***PL 226. The Age of Reason and Its Legacy****C**

The nature of reality, knowledge, and experience as portrayed by the Rationalists (Descartes, Leibniz, and Spinoza) and the Empiricists (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.

*3 hours credit***PL 228. American Philosophy****C**

The political philosophy, epistemology, scientific method, and criteria of truth, argument, and reason which distinctively characterize 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**

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 258. Life and Death****B**

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 265. Social and Political Philosophy****C**

The proper form of human association, the just balance of economic, political, and social power, and the nature of the relationship be-

tween the state and the individual are explored in the works of prominent historical and contemporary theorists. 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**

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 274. Introduction to Existentialism****D**

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 310. Administrative Ethics****C**

Ethical problems that 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**

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 313. Sex and Love****B**

Addresses three specific areas of sex and love, and includes cross-cultural components. First, sexual ethics: Which kinds of sexual activity are morally permissible under what sort of circumstances? Must morally permissible sex be based on love? What is "good sex?" Second, the politics of sex: Are versions of "proper sexuality" used as mechanisms to oppress women and homosexuals? Third, the ideals of love: What are the different kinds of love? Why should we be concerned with analyzing love?

3 hours credit

PL 317. Philosophy of Science C

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

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

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 C

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 338. Marxist Thought C

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 342. Values in a Technological Society B

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

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

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

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

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 430. Philosophy of Mind C

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?

Prerequisite: 3 credit hours of philosophy.

3 hours credit

PL 438. Metaphysics: Reality and Existence C

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: 3 credit hours of philosophy.

3 hours credit

PL 440. Theory of Knowledge C

Nature and sources of human knowledge. Epistemic appraisal, truth and rationality, the problems of perception and other minds.

Prerequisite: 3 credit hours of philosophy or instructor's permission.

3 hours credit

PL 446-449. 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 460-469. Major Philosophers C

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 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: permission of instructor.

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 permission of instructor.

1-3 hours credit

PHYSICS

Office: 118 Houghton Hall
(716) 673-3301

E-mail: Physics@fredonia.edu

Subra Pendyala, *Chairperson*

The discipline of physics is basic among the sciences and focuses on the study of natural phenomena. In the process, the student is provided with a broad-based liberal education. The Department of Physics offers a major, a minor, a major through 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), a major in Industrial Management, and courses to complement majors in other areas.

Student Honors and Awards

Student honors and awards presented by the Department of Physics include the Hack Arroe Memorial Scholarship Award, the John J. Connelly Physics Scholarship Incentive Award, the John J. Connelly Physics Peer Recognition Award, and the Physics Department Scholarship Award. Students should contact the Department of Physics

chairperson for additional details on these awards. Specific awards for Cooperative Engineering students are also available (see page 54).

Requirements for the Bachelor of Science Degree in Physics

Required courses for the Physics major (36 credit hours):

PH 230-231	University 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
PH 431	Intro. to Quantum Mechanics	3
<i>One course (3 credit hours) from:</i>		3
PH 330	Thermodynamics	
PH 331	Theoretical Mechanics	
PH 333	Electricity and Magnetism	
<i>Plus 11 additional hours as advised from PH 321 through 479, 490</i>		11
		<hr/>
MA 122-123	University Calculus I, II & -223 III	12
MA 224	Differential Equations	$\frac{3}{15}$

Note: Minimum cumulative GPA of 2.0 required in above courses for graduation.

Plus 15 additional hours in science, mathematics, computer science, engineering or education, including CS 121 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 SUNY Fredonia take:

PH 230-231	University Physics I & II and PH 232-233 (Labs)	8
PH 234	Modern Physics	4
PH 321	Engineering Mechanics I	4
PH 400	Undergraduate Seminar	1
PH 425-426	Mathematical Physics I & II	6
PH 431	Intro. to Quantum Mechanics	3
<i>One course from:</i>		
PH 323	Circuit Analysis I or	3
PH 325	Electronics and PH 327 (Lab)	

PH 326	or Digital Logic & PH 328 (Lab)	4
<i>One course (3 hours) from:</i>		3
PH 330	Thermodynamics	
PH 331	Theoretical Mechanics	
PH 333	Electricity and Magnetism	

Plus one additional course as advised from PH 322 through 326

MA 122-123	University Calculus I, II & III	12
MA 224	Differential Equations	$\frac{3}{15}$

Note: Minimum cumulative GPA of 2.0 required in above courses for graduation.

Plus 15 additional hours in science, mathematics, computer science and engineering, including some courses from PH 322 through 326 as advised. Students interested in electrical engineering should take PH 323 and 324, while students interested in non-electrical engineering should take PH 322.

Note: affiliated engineering institutions (page 53) may have additional requirements for courses and/or grades.

Requirements for the Bachelor of Science Degree in Geophysics

Students interested in this joint major should contact the chairperson of the department of Physics or Geosciences.

Core Program (24 to 25 credit hours in geosciences; 17 to 19 credit hours in physics; 26 credit 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 360	Seminar in Geosciences or PH 400 Undergraduate Seminar	1
GS 370	Structural Geology	4
GS XXX	Geology elective	4
PH 230-231	University Physics I & II and PH 232-233 (Labs)	8
PH 321	Engineering Mechanics I or	4
PH 330	Thermodynamics or	3
PH 331	Theoretical Mechanics or	3

PH 333	Electricity and Magnetism	
PH XXX	Electives from PH 321 through PH 479	6
		<hr/>
		17-18

MA 122-123	University Calculus I, II & III	12
MA 224	Differential Equations	3
CS XXX	ny course (preferably CS 104 Introduction to Microcomputer Software)	3
CH 115-116	General Chemistry I & II and CH 125-126 (Labs)	8
		<hr/>
		26

GS 330 Geomorphology is strongly recommended.

Requirements for the Bachelor of Science Degree in Mathematics-Physics

Core Program (33 credit hours in mathematics/computer science; 27 credit hours in physics; 9 credit hours in supporting courses).

CS 121	Computer Science I	4
<i>Plus 29 hours in mathematics including:</i>		
MA 122-123	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 two courses at the 300 level or higher: MA 323 and MA 420, or MA 323 and PH 425, or PH 425 and PH 426.

PH 230-231	University Physics I & II and PH 232-233 (Labs)	8
PH 234	Modern Physics	4
PH 431	Intro. to Quantum Mechanics	3
<i>One course (3 credit hours) from:</i>		3
PH 330	Thermodynamics	
PH 331	Theoretical Mechanics	
PH 333	Electricity and Magnetism	

Plus additional credit hours from PH 321 through 479, 490

Plus 9 credit hours of supporting courses as advised

Requirements for the Minor in Physics

A minimum of 21 credit hours in physics, including PH 230, 231, 232, 233, and 234 and 9 additional credit hours in physics courses numbered 321 through 479, 490 as advised by a physics department faculty member and approved by the department. Additionally, 15 credit 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 at page 48. Students in all education programs are required to demonstrate competence in a foreign language. This requirement may be satisfied in any one of the following four ways: (1) completion of course work at the 116 level at Fredonia, or (2) transferring of two successful college semesters, or (3) scoring at the 50th percentile or higher on the CLEP exam, or (4) completion of three years of high school language with a passing Regents score (passing = 65).

The Department of Physics participates in the Cooperative Agriculture and the Cooperative Engineering programs: refer to descriptions of these programs or page 6 and page 53, respectively.

For information on the degree in Industrial Management, see page 81.

In the list of courses below, 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

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 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.

1 hour credit

PH 111. Introduction to Physical Sciences **D**

For non-science majors. Emphasis on laws of nature, principles, atomic and nuclear structure.

3 hours credit

PH 121-122. College Physics I & II **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 I & II Laboratory **B**

One three-hour laboratory session per week treating topics covered in PH 121-122.

Corequisites: PH 121 for 123, 122 for 124.

1 hour credit each semester

PH 200. Engineering Graphics **D**

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 206 Genesis of the Universe **B**

A non-mathematical course covering historical, philosophical, theological and scientific aspects concerning the genesis of the universe.

3 hours credit

PH 230-231. University Physics I & II **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: electricity and magnetism.

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. University Physics I & II 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, including a weekly three hour lab.

Prerequisite: PH 231.

4 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: PH 121 or PH 230 or permission of instructor.

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 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 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 Kirchhoff's 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 wave-shaping.

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, introduction to statistical mechanics.

Prerequisite: PH 230.

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.

Corequisite: PH 425 or permission of department.

3 hours credit

PH 333. Electricity and Magnetism **B**

Mathematical theory of electrostatics and electromagnetism employing vector calculus. Applications of Maxwell's equations.

Prerequisite: PH 425 or permission of department.

3 hours credit

PH 340. Optics **C**

An introduction to geometrical, physical, and modern optics.

Corequisite: PH 341.

Prerequisite: PH 231.

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 **D**

Tensor calculus approach to relativistic kinematics, dynamics, optics, electrodynamics, and selected applied topics.

Prerequisite: PH 234 or 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: MA 224.

3 hours credit

PH 426. Mathematical Physics II **B**

Applied methods including partial differential equations of physics, boundary value problems, Sturm-Liouville theory and eigenfunctions, 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, Schrodinger's wave equation with applications to potential problems, to the hydrogen atom, and to atomic spectra; perturbation theory, and spin-orbit interaction.

Prerequisite: PH 234.

Corequisite: PH 425 or permission of department.

3 hours credit

PH 434. Solid State Physics **D**

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 470-479. 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.)

1-3 hours credit per semester

POLITICAL SCIENCE

Office: E366 Thompson Hall
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William D. Muller, *Chairperson*

Political science is a liberal arts discipline designed to prepare students as informed citizens and leaders in contemporary society. 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 (Bachelor of Arts degree)* provides a broad treatment of politics in the modern world. Students electing this option select courses from the six substantive fields of political science (American Political Institutions, Comparative Politics, International Politics, Political Economy, Political Theory and Public Policy/Law).

The program in *Public Law and Policy (Bachelor of Arts 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 (Bachelor of Arts 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.

Fredonia graduates hold responsible positions in businesses and corporations as well as in federal, state, and local governments. Following completion of college, some of our students continue their studies in graduate or law school. The latter become attorneys in the public and private sectors. The department has regular advisory meetings on careers for its majors and sponsors a variety of internships. Each year the department selects students 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 credit hours are granted for participation in the program.

Similar in structure to the Washington Semester Program but with residence in Albany, the Albany Semester Program provides an internship with a state agency or the New York State Legislature, earning 15 credits also.

The Department of Political Science offers a number of internships in local government and local law-related agencies.

Awards

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.

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.

Two J.R. Soukup *Pi Sigma Alpha* Awards are given annually. One award is given to an excellent in-

coming freshman (one year). The second award is given to the outstanding junior who not only demonstrates scholarship but is pursuing studies and/or a career in some form of private or public community service. This will be awarded in the spring term.

The department awards the John R. Quatroche Jr. Award to an outstanding Political Science student who demonstrates an outstanding record of involvement in extracurricular affairs, campus service and leadership.

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).

Students interested in majoring or minoring in Legal Studies (Pre-Law) should consult page 86. The Legal Studies program is administered through the Department of Political Science.

Political Science majors can belong to the student Political Science Association, which organizes a variety of activities. These include trips to Washington D.C., career days, election year debates, voter registration projects, parties, and others.

Political Science majors are encouraged to satisfy the GCP Part II distribution requirement with courses in history and economics where possible. They are also advised to consider these departments in their selection of objectives.

Students wishing to teach political science in the secondary schools may obtain provisional certification by completing the Social Studies Secondary Education program (see page 48). Students in all education programs are required to demonstrate competence in a foreign language. This requirement may be satisfied in any one of the following

four ways: (1) completion of course work at the 116 level at Fredonia, or (2) transferring of two successful college semesters, or (3) scoring at the 50th percentile or higher on the CLEP exam, or (4) completion of three years of high school language with a passing Regents score (passing = 65). The procedure to be followed for admission to the professional sequence of courses is described on page 48. For updated information on the department, its programs and faculty, consult the department web site at: <http://www.fredonia.edu/department/polisci/>

Requirements for the Bachelor of Arts Degree in Political Science

36 credit hours

1. Students majoring in Political Science must take the following courses (15 credit hours):

- A. Introductory courses (9 credit hours):
 - PS 120 American Politics 3
 - PS 121 American Public Policy 3
 - PS 150 U.S. and World Affairs 3
- B. Methods course (6 credit hours):
 - PS 200 Statistics 3
 - PS 210 Methods 3

All five 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 six 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 Elections in America 3
- PS 324 President and Congress 3
- PS 329 Topics in American Politics 3
- PS 370 American Constitutional Law 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 381 Urban Politics and Planning 3
- PS 382 Social Welfare Systems 3
- PS 383 Courts and Social Policy 3
- PS 387 Environmental Policy 3
- PS 389 Topics in Public Policy 3

Comparative Politics:

- PS 330 Western European Politics 3
- PS 331 Canadian Politics 3
- PS 332 Russian Politics 3
- PS 334 African Politics 3
- PS 341 Political Economy of Development 3
- PS 344 Comparative Public Policy 3
- PS 345 Film and Politics 3
- PS 346 East Asian Political Economy: Japan, China and Korea 3
- PS 349 Topics in Comparative Politics 3

International Politics:

- PS 348 The European Union 3
- PS 352 World Political 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 Economy:

- PS 313 American Power Structures 3
- PS 334 African Politics 3
- PS 341 Political Economy of Development 3
- PS 344 Comparative Public Policy 3
- PS 346 East Asian Political Economy 3
- PS 354 Middle East in World Affairs 3
- PS 355 International Political Economy 3
- PS 382 Social Welfare Policy 3

Political Theory:

- PS 360 Classical Political Theory 3
- PS 361 Modern Political Theory 3
- PS 363 Game Theory 3
- PS 365 American Political Thought 3
- PS 369 Topics in Political Theory 3

Public Law and Policy

A. Introductory Law Course (3 credit hours)
 Either PS 276 Law and Society or PS 277 Introduction to Law

B. Advanced Law Courses (at least two courses from the following for a total of 6 credit hours):

- PS 370 American Constitutional Law 3
- PS 371 Civil Rights and Liberties 3
- PS 383 Courts and 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 credit hours):

- PS 313 American Power Structures 3
- PS 363 Game Theory 3
- PS 380 Policy Evaluation 3
- PS 381 Cities and Citizens 3
- PS 382 Social Welfare Policy 3
- PS 387 Environmental Policy 3
- PS 389 Topics in American Public Policy 3

D. Advanced International/Comparative Public Policy Courses (at least one course from the following for a total of 3 credit hours):

- PS 341 Political Economy of Development 3
- PS 344 Comparative Public Policy 3
- PS 348 The European Union 3
- PS 352 World Political Geography 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 credit hours):

- PS 311 Public Administration 3
- PS 321 Political Parties and 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 credit hours).

Note: The Public Law and Policy program requires 39 credit hours, 3 more hours than what is required in the Government and Politics program.

Political Economy

A. Introductory economics courses (6 credit 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 credit hours):		
PS 313	American Power Structures	3
PS 334	African Politics	3
PS 341	Political Economy of Development	3
PS 344	Comparative Public Policy	3
PS 346	East Asian Political Economy: Japan, China and Korea	3
PS 352	World Political Geography	3
PS 354	Middle East in World Affairs	3
PS 355	International Political Economy	3
PS 382	Social Welfare Policy	3
C. Advanced economics courses (6 credit hours from the following):		
EC 320	International Trade and Finance	3
EC 335	Economic Development	3
EC 345	Comparative Economic Systems	3
EC 355	Labor and Industrial Relations	3
EC 380	Environmental and Natural Resource Economics	3
EC 405	Industrial Organization (formerly Government Regulation of Business)	3
D.	Two additional Political Science electives (must be at 300 level or above).	6

Note: The Political Economy program requires 42 credit hours.

Requirements for the Minor in Political Science

At least 21 credit hours in political science, including 12 credit 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 and Policy
Political Economy
American Politics
International Politics
Comparative Politics
Political Theory

For a listing of courses in each minor, students should see an advisor or the department chair-person.

Geographic Information Systems

This program is sponsored jointly by political science and the Department of Geosciences. Interested persons should refer to page 66 for a description of the concentration.

Certificate 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 by the Political Science Department following successful completion of the following:

1.	PS 150	U.S. and World Affairs	3
2.	Nine credit 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 346	East Asian Political Economy: Japan, China and Korea	3
	PS 354	Middle East in World Affairs	3
	PS 355	International Political Economy	3

Special Programs

Internships: No more than 3 credit hours of internship credit may count toward the Political Science major or minor.

The department participates in various Interdisciplinary Studies Model Majors and Minors such as Legal Studies and Criminal Justice.

The Department of Political Science also participates in the Cooperative Agriculture and Cooperative Engineering Programs. Refer to descriptions of these programs on page 6 and page 53, respectively.

In the list of courses below, 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

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 political economy of policy formation. Emphasis is placed upon the questions of why government intervention in the economy is necessary and the cost-benefit evaluation of the intervention. Political failure is contrasted with market failure in evaluating government public policies. Substantive policy areas such as health care and education policies will be analyzed.

Prerequisite: PS 120 or permission of department.

3 hours credit

PS 150. U.S. and World Affairs B

Studies key reasons for how and why countries behave as they do in international politics. Emphasis upon the changing sources of international power, colonialism, the Cold War and U.S.-U.S.S.R. struggle for power, and contemporary issues such as the arms race, Middle East conflicts, and struggle for economic power between rich and poor countries. Close study of the usefulness and morality of U.S. interventions abroad from the Gulf War to Panama, Haiti, and Bosnia.

3 hours credit

PS 200. Statistics B

Introduction to the substantive and technological methodology used in study of politics commonly employed by government and business offices. Attendance required.

3 hours credit

Note: Only one statistics "200" course can be taken for credit.

PS 210. Methods C

Introduction to the variety of methods of analysis employed in the empirical study of politics. Consideration of the debates concerning the character of social science. A discussion of normative and positive methods of

analysis and evaluation of topics suited for quantitative and non-quantitative treatments. Research design, data analysis, and reporting of results.

3 credit hours

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 leading court cases. A broad range of topics are covered, including criminal and civil law, legal remedies, punishment, torts, contracts and family law. This course will emphasize the development of legally defined rights and the methods involved in the legal resolution of disputes.

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.

1-4 hours credit

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 structures of the United States. Analysis of how factors such as economic class, race, or ethnicity influence who holds or controls political power in federal, state, and local governments. Contrasting theories of "who governs" are studied: pluralist, elite, and class-based models. Students will learn techniques of organizing people to exercise power in behalf of their common interests.

Prerequisite: PS 120 or permission

3 hours credit

PS 321. Political Parties and Interest Groups C

The role of political parties and interest groups in the shaping of government policies and the ordering of society is analyzed. Internal structures and membership of both parties and groups is emphasized, especially how the collective action problem is solved. The influences of parties and interest groups upon public policies are evaluated. Proposals to reform parties and groups are presented.
Prerequisite: PS 120 or permission of department.

3 hours credit

PS 322. New York Government C

Study of the legal framework of New York's state and local governments. Analysis of state and local executive organization, politics, political participation, and policy making. Critical examination of the economic competitiveness of NY state in the U.S. and global economy. Attention also to the idea of reinventing government techniques and models.
Prerequisite: PS 120 or permission of department.

3 hours credit

PS 323. Elections in America 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 frequently overlapping and in conflicting roles 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 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: 3 credit hours in political science, HY 116 or permission of the department.

3 hours credit

PS 331. Canadian Politics 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: 3 credit 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 Russia and the former Soviet Union at the end of the twentieth century.

Prerequisite: 3 credit hours in political science or permission of department.

3 hours credit

PS 334. African Politics C

Study of contemporary African politics focuses upon processes of political change and conflict. This includes analysis of patterns of colonial rule, nationalist protest, modern political parties and political systems, ethnic conflict, problems of economic development, and the role of social groups, parties, the military, and ideology in the struggle for civil liberties and democracy. Studies of specific countries such as Nigeria, Ghana, South Africa.

Prerequisite: 3 credit hours in political science or permission of department.

3 hours credit

PS 341. Political Economy of Development C

Examines the ways political-economic factors and relationships condition the patterns of 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 groups benefit? Contrasting Marxist and non-Marxist analyses are used. Contemporary and historical studies of development in Europe, the Middle East, Latin America, and Africa are used.

Prerequisite: EC 201 Macroeconomics, 3 credit hours in political science, junior standing.

3 hours credit

PS 344. Comparative Public Policy 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: PS 120 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, 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, war, law, and race, gender, and class differences and conflicts. Major feature films are used.

Prerequisite: junior standing.

4 hours credit

PS 346. East Asian Political Economy: Japan, China & Korea C

This course focuses on the political, social and economic institutions that have driven the economic development of these East Asian countries which are increasingly creating competitive problems for the United States. Extensive discussion of the role of government planning and group structures such as the keiretsu and chaebol. Also analyzed are the determinants and extent of the development of democratic government in Confucian societies.

Prerequisite: 3 hours in political science or permission of the department.

3 hours credit

PS 348. The European Union C

Study and analysis of the politics of the European Union (formerly the European Community). Topics include: theories of International Organization and functional integration; the EU Commission, Parliament, and Council of Ministers; the European Council; the Common Agricultural Policy; the Maastricht Treaty and other topics as appropriate. Students participate in a model EU at SUNY College at Brockport or in Europe in alternate years. May be repeated for credit.

Prerequisite: permission of the instructor.

3 hours credit

PS 349. Topics in Comparative Politics D

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: 3 hours in political science or permission of department.

3 hours credit each semester

PS 352. World Political Geography B

Examination of the ways humans have arranged the territory of the Earth's surface, including how personal space, territoriality, and perception inform an understanding of politics, the analysis of countries within a geopolitical framework; case studies of how geography has impacted empires, civil divisions, and international relations; comparison of distribution of major political systems and their applications to territory.

Prerequisites: PS 150; HY 102; junior 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: inter-Arab struggles, the Arab-Israeli conflict, and the contest for influence by external powers.

Prerequisite: 3 credit hours in political science.

3 hours credit

PS 355. International Political Economy C

Focuses on the dynamics of the international economy, economic policies and problems of major states, postwar international institutions, and trade and monetary systems. Considers theories and practices of the role of major powers and multinational corporations in the international economy. Interested in

the dramatic changes in the division of world productive power, impact of globalization of capital and production upon the well-being of countries and outbreak of crises, and developing country struggles to change their economic relationships with the world economy.

Prerequisite: junior standing, EC 201; recommended EC 202.

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

PS 360. Classical Political Theory C

Analytical treatment of main problems of political theory by examination of the writings of Plato and Aristotle. Discussion of contending theories of justice, equality, and political obligation.

Prerequisite: 3 credit hours of political science or permission of department.

3 hours credit

PS 361. Modern Political Theory C

Analytical treatment of main problems of political theory by examination of the writings of Machiavelli, Hobbes, Locke, Rousseau, Marx, Mill, and Rawls. Discussion of contending theories of individual rights and obligations, as well as the justification and limits of the state.

Prerequisite: 3 credit hours of political science or permission of department.

3 hours credit

PS 363. Game Theory D

The course will use rational choice theory to analyze how individuals and groups make decisions in strategic and non-strategic situations. Strategic situations are the result of the interdependent decisions of several individuals, e.g., nuclear deterrence or business competition. Problems covered include

how computers beat humans at chess to the evolution processes of society. How do group norms arise where individual competition is the usual course of action? A low level of mathematical background is required.
Prerequisite: PS 200 or equivalent.

3 hours credit

PS 365. American Political Thought C

Critical examination of the development of American political thought, Colonial period to the present. Discussion of questions regarding the status of rights, the limits of the state, equality, and social justice. Includes analysis of the role in American politics of such ideologies as liberalism, conservatism, communitarianism, and socialism.

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.

Prerequisite: 3 hours of political science 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

PS 371. Civil Rights and Liberties B

Study of judicial cases involving safeguarding of individual civil and property rights, 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.

Prerequisite: 3 credit hours of political science or permission of department.

3 hours credit

PS 380. Policy Evaluation C

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 381. Cities and Citizens C

Investigation of the events and processes that have shaped the development and decline of U.S. cities. Topics include the evolution of cities, urban form and design, theories of urban planning, urban politics and governance, urban policy and economics, racial and socioeconomic isolation, urban unrest, and the impact of technology.

Prerequisite: PS 120 or PS 121; EC 201 or EC 202; junior standing.

3 hours credit

PS 382. Social Welfare Policy B

Examination of the 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, welfare reform, 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 C

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 387. Environmental Policy C

A synthesis of the political, ecological, economic, historical and cultural events and issues shaping U.S. and international environmental policy. A broad range of topics are covered, including environmental history, population growth, the global commons, environmental justice, natural hazards, nuclear

growth, the role of business, and regulations governing endangered species and habitats, waste disposal, water and air.

Prerequisite: PS 120 or 121; 3 credit hours of natural science or economics; junior standing.

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.

Prerequisite: 3 credit hours of political science or permission of department.

3 hours credit each semester

PS 401. Washington Seminar A

3 hours credit

(Prior selection required)

PS 402. Washington Internship A

6-9 hours credit

(Prior selection required)

PS 403. Independent Study (Washington) A

3 hours credit

(Prior selection required)

PS 405. Independent Study (Albany) A

3 hours credit

(Prior selection required)

PS 406. Seminar in State Politics (Albany) A

4 hours credit

(Prior selection required)

PS 407. Albany Internship A

6-12 hours credit

(Prior selection required)

PS 490. Intern in Local Politics and 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.

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 **B**
 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.
 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

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 credit 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 **D**
 1-3 hours credit

(Pre-Law, see Legal Studies, page 86)

PRE-MEDICINE AND ALLIED AREAS

Office: 203 Jewett Hall
 (716) 673-3282
 E-mail: Premed@fredonia.edu
Wayne Yunghans, Coordinator

Fredonia graduates have enjoyed considerable success in gaining entry to medical and dental school. The success rate of our recent applicants to health professional programs is about 60 to 75 percent. The Biomedical Professions Council closely advises and assists each pre-medical student and prepares a committee letter on his/her behalf. The complete credentials file is assembled by the biology department and submitted in a timely manner on behalf of each applicant.

While no medical schools stipulate a particular major program of undergraduate study, they do require that students have minimum preparation in a number of areas including biology, chemistry, English, and physics. Most of our students find the Fredonia Biology major meets all the requirements for American medical schools and choose it as the most appropriate undergraduate pre-med program. The American Association of Medical Colleges advises that students may major in any area, but their own (AAMC) admissions data show that the majority of successful applicants to American medical schools have majored in the biological sciences. Students who choose to major in an area outside of biology should register with the council as freshmen to ensure appropriate advice and assistance (register at the biology office in Jewett Hall).

Any student who is seriously considering a medical or dental career should seek out summer employment/internship opportunities in medicine early in their undergraduate experience.

The book, *Medical School Admissions Requirements* (AAMC, Washington, D.C.) is essential reading for any undergraduate who is seriously considering medical school.

Candidates to dentistry, veterinary, and podiatric medicine should also avail themselves of the advising services of the Biomedical Professions Council.

PSYCHOLOGY

Office: W357 Thompson Hall
 (716) 673-3129
 E-mail: Psych@fredonia.edu
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. A liberal arts education with a major in psychology is good preparation for a wide variety of jobs including human services, sales, and management. Some jobs in psychology and related mental health areas are available at the bachelor's degree level; others may require an advanced degree. Many of our majors continue in graduate school in fields of study including school psychology, social work, counselor education, cognitive psychology, counseling psychology, and law.

To meet all of these objectives the department offers courses spanning the entire field of psychology. Internships and independent study opportunities are also available. 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. Interested persons should see the de-

partment chairperson for additional information.

Requirements for the Bachelor of Arts Degree in Psychology

I. Courses in Psychology

Core Group - all required

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.

One course from the Psychophysiology Area:

PY 342 Perception	3
PY 351 Physiological Psychology	3

One course from the Cognitive Area:

PY 244 Cognitive Psychology	3
PY 344 Psychology of Language	3
PY 364 Cognitive Development	3

One course from the Social Area:

PY 245 Social Psychology	3
PY 246 Personality	3
PY 365 Social Development	3

One course from the Clinical/Counseling Area:

PY 356 Abnormal Psychology	3
PY 379 Child Psychopathology	3
PY 447 Introduction to Counseling	3

One Theoretical Thinking course:

PY 429 History and Systems of Psychology	3
PY 430 Theories of Psychology	3
PY 439 Senior Honors Seminar	3
PY 454 Theories of Memory	3
PY 456 Theories of Personality	3

Also required: One course of a developmental focus. PY 364 or PY 365 may count here as well as in the groupings above. PY 349 (Child Psychology) also meets this requirement. Students choosing to take PY 364 or PY 365 must take an additional psychology elective in order to fulfill the requirement that they have 35 hours of psychology courses.

Psychology electives	3
	<u>6</u>
	35

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. One course must come from the psychophysiology area or the cognitive area (PY 244, 342, 344, 351, or 364) and one course must come from the social area or the clinical/counseling area (PY 245, 246, 356, 365, 379, or 447).

Industrial-Organizational Psychology Minor:

A minimum of 21 credit hours, distributed as follows:

Core Courses—12 credit 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 credit hours

PY 227 Applied Psychology	3
PY 245 Social Psychology	3
PY 355 Group Dynamics	3
PY 447 Introduction to Counseling	3

One course from the following - 3 credit hours

SO 322 Work and Society	3
SO 325 Complex Organizations	3

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 SUNY Fredonia.

For a minor, a minimum of 9 hours must be taken in the department at SUNY Fredonia.

The psychology department participates in the Cooperative Agriculture and Cooperative Engineering programs. (See pages 6 and 53, respectively.)

In the list of courses below, 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

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. Attendance is required. *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 207. Introduction to Computers in the Social Sciences **B**

Basic and intermediate techniques of data analysis using SPSSPC or similar computer software.

Prerequisite: PY 200 or equivalent.

1 hour 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 237. 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 243. Principles of Learning C

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 A

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 273. States of Consciousness A

Scientific overview of "ordinary consciousness" and other states of consciousness including sleep and dreams, meditation, bio-feedback, 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 C

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.

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 289. Lifespan Human Development C

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 C

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.

Prerequisites: PY 129 and PY 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: PY 129 and either PY 245, PY 246, or PY 289.

3 hours credit

PY 342. Perception A

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 344. Psychology of Language C

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 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 364. Cognitive Development B**
A study of the conceptual changes which occur during childhood. Topics include theories of cognitive development, infant perceptual capabilities, the evolution of representations, memory systems, language acquisition, and reasoning. Focus is on current research and theory.
Prerequisite: PY 129.
3 hours credit
- PY 365. Social Development B**
Explores the process of socialization. Theories and research relating to social development in areas such as achievement, self-concept, aggression, altruism, and gender roles are covered. Emphasis on the impact of and linkage between various socialization agents (e.g., parents, peers, & school). Social issues (e.g., divorce, drug abuse, etc.) and intervention programs will be considered.
Prerequisite: PY 129.
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.
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 373. Human Factors B**
The study of how humans perceive, think about, and interact with technology and machines. Includes evaluating human performance with technological systems, and designing such systems for reducing human error.
Prerequisite: PY 129.
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, PY 356, or ED 225.
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 430. Theories of Psychology B**
A discussion of the principles, assumptions, construction, and application of various theories of human behavior. The specific theories covered will vary with the instructor, e.g. Anderson's cognitive theory, Bandura's social learning theory, Freud's psychoanalytic theory, Piaget's theory of development, Skinner's theory of learning.
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 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 454. Theories of Memory B**
In depth exploration of several theoretical approaches to the study of human memory.
Past, present, and future implications of the theories will be evaluated and discussed.
Prerequisite: PY 210 and PY 244 or PY 364. Senior standing.
3 hours credit
- PY 456. Theories of Personality B**
Systematic analysis of the works of major contributors to personality theory.
Prerequisites: 12 hours of psychology including PY 210 and PY 246. Senior standing.
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.
Prerequisites: PY 356 and permission of instructor.
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.
1-3 hours credit

RECOMBINANT GENE TECHNOLOGY

(also see Biology)

Office: 203 Jewett Hall

(716) 673-3282

E-mail: Rgt@fredonia.edu

Roger A. Byrne, *Chairperson*

Department of Biology

Virtually all areas of the life sciences are being affected by the application of Recombinant Gene Technology (genetic engineering) in solving biological problems. The need for personnel trained in recombinant DNA techniques continues to expand with the preferential application of this technology to address problems in medicine, agriculture, environmental science, industry, forensics and basic biology. Indeed, Recombinant Gene Technology is playing a central role in virtually all aspects of modern biological research.

SUNY Fredonia's unique program in Recombinant Gene Technology, the first of its type in New York State, provides students with the necessary skills to enter these exciting areas of molecular biology and biotechnology. Techniques presented in the program center on DNA cloning, nucleic acid hybridization, gel transfers, and DNA sequencing, which form the basis of the Human Genome project and of other molecular genetic research. The B.S. degree in Recombinant Gene Technology also provides a broad liberal arts education in the biological sciences as a basis for graduate work in molecular biology, genetic counseling, entrance to a medical program, or as a research technician.

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 in a research project setting that includes a comprehensive selection of the tech-

niques employed in genetic engineering (see course description in the biology section, page 14).

Requirements for the Bachelor of Science Degree in Recombinant Gene Technology

BI 141-142	Plant Diversity and Ecosystem Biology & Lab	4
BI 144-145	Animal Biology and Evolution & Lab	4
BI 241-242	Introductory Cell Biology & Lab	4
BI 333-334	Biochemistry & Lab	4
BI 335	Genetics	3
BI 338	Microbiology	3
BI 340	Cell & Subcellular Biology	3
BI 431	Senior Seminar	1
BI 435	Developmental Biology	3
BI 460	Recombinant Gene Technology	3
<i>Plus 9 additional hours of biology electives at the 300-400 level.</i>		9
		41
CH 115-115	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)	8
or		
PH 230-231	University Physics I & II and PH 232-233 (Labs)	8
MA 120-121	Survey of Calculus I and II	6
or		
MA 122-123	University Calculus I & II	8
CS 104	Introduction to Microcomputer Software	3
or		
CS 105	Visual BASIC Programming	3
		33 or 35

Chemistry and mathematics courses should be completed by the end of the sophomore year, physics courses by the end of the junior year.

Course descriptions for the major are listed on pages 14-19 in the biology section.

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

cell and hybridoma, molecular genetics, PCR, eukaryotic gene expression, hormone mechanisms, ecology, plant physiology, mammalian physiology, and cell regulation are recommended.

Requirements for Transfer Credit:

The degree offered by the biology department requires students to complete 41 credit hours of biology core and elective courses chosen with advisement. Students are expected to complete at least half of the biology courses at Fredonia. Additional credit hours transferred may be used as general electives toward graduation. As a rule, the department will not accept as equivalent for upper level courses, credit earned at two year colleges.

SOCIAL WORK

(also see Sociology and Anthropology)

W377 Thompson Hall

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E-mail: Socwrk@fredonia.edu

Mary B. Carney, *Director*

The profession of social work is dedicated to solving and preventing social problems, whether they involve individuals, families, small groups, organizations or communities. The Bachelor of Science in Social Work program began in the Fall 1997 semester. SUNY Fredonia's program is currently approved by the New York State Education Department and the college is engaged in the accreditation process with the Council on Social Work Education, the profession's educational accreditation organization.

One of the program's main goals is to prepare high-functioning generalist social workers who integrate knowledge, values and skills for competent entry-level professional practice and/or graduate education. The generalist social work perspective adopts the view that the world is complex, multidimensional, interrelated, and interactive. Therefore, social workers need to be open to

the unique nature of people and their situations, requiring practitioners to have a broad range of knowledge on topics such as political science, economics, sociology, psychology, biology, geography, etc. Social workers need to have an understanding of people as individuals and as members of groups such as families, organizations, communities and societies. Social Work students learn to investigate, assess, and intervene with these systems to address individual difficulties; environmental stresses; and problems that result from the interaction between the person and their environment.

The Social Work curriculum is designed to provide the professional foundation which gives students specific social work theory, knowledge and skills. It is built upon a liberal arts base and provides individualized opportunities for personal and professional growth. Students work with their advisors to choose elective courses to develop their specific interests. The Social Work Club plans student-directed activities which increase opportunities to explore the nature of the profession. Through their academic experiences, students become more well-rounded, responsible individuals who possess a spirit of inquiry, critical thinking and helping skills, and have the ability to use the self appropriately in relationships with others.

Advancement Into the Professional Methods Sequence

Students who indicate their desire to major in Social Work and who meet the SUNY Fredonia acceptance requirements are designated official majors at the time of their acceptance. However, in the second semester of the sophomore year, all majors who wish to continue in the program and take upper level Social Work methods courses must successfully complete the advancement process. An application with supporting documents must be filed by March 15. Supporting documents

include a written response to a question posed on the application, transcripts, and three letters of recommendation. Students must successfully complete an interview with a Social Work faculty member. Transcripts must document that students have met the following advancement requirements:

1. A grade of "C" or better in the following prerequisite courses:
Introduction to Sociology
Introduction to Psychology
Human Biology
Statistics
Introduction to Social Work
Exploring Community-Based Social Work
2. A cumulative Grade Point Average (GPA) of 2.5 or higher, and,
3. A grade of "B" or better in SO 272 Exploring Community-Based Social Work.

The application materials with complete instructions can be obtained by contacting the department and/or Program Director.

Students will not be allowed into the Methods Sequence if they have not successfully completed this process. Once accepted into the advanced course work, students must follow the prescribed order of courses. Each course builds upon the knowledge of the course that precedes. Students must also achieve a minimum grade of "C" in their required Social Work courses to continue in sequence.

Transfer Students

The Social Work program welcomes transfer students. The curriculum was designed to facilitate a successful transition from other institutions. Incoming freshman and sophomore students are given intensive advising to prepare for advancement and to promote success in all academic pursuits. Incoming juniors who transfer with an A.A./A.S. degree or who have 60 credit hours are also given intensive advisement but they must meet all the advancement criteria prior to transfer. When applying for ad-

vancement into the junior year course work, these students must file their application with supporting documents and they must:

1. Be formally accepted into SUNY Fredonia for the fall semester.
2. Document the completion of 60 credit hours (or submit their plan to complete at least 60 hours before they start the fall semester.)
3. Establish equivalency for courses transferring as Introduction to Social Work (Introduction to Human Services), Exploring Community-Based Social Work (Human Services Internship), and Human Biology.

Part-time Evening Program

It is possible to earn a Social Work degree at SUNY Fredonia through part-time study. Required courses are scheduled for late-afternoon and evening. Since part-time students present many different needs, they must carefully plan their academic careers with their advisor. Part-time students must meet the same prerequisites for courses and must complete the same advancement process as full-time students.

Field Practicum

In the senior year, students must complete a 500-hour professionally supervised placement in a social service agency. Conceived as one experience spread over two semesters, the student must complete a minimum of 250 hours of activities during each of the fall and spring semesters. Students apply for their Field Practicum in the spring semester of their junior year. Students must have completed all prerequisite courses prior to entering their field work. They must also have maintained a 2.5 cumulative Grade Point Average (GPA) and a 2.5 average in all the required Social Work courses. Field practicum policies and procedures can be found in the *Field Manual* available to the students during the application-to-the-field process in the spring semester.

Program Policies

The social work profession has been a leader in the cause of fighting prejudice, discrimination, and oppression against all people in society. Admission and advancement in the program is based upon the published criteria. Race, color, religion, creed, gender, ethnic or national origin, disability, age, political orientation, or sexual orientation play no role in the program decisions. However, social work is also a professional field with expectations of professional behavior. Students who meet the published criteria but who have evidenced a pattern of unprofessional, unsuitable behavior may be denied advancement and/or dismissed from the program. Students may also be dismissed from the program for academic reasons. Students must earn a grade of "C" or better in their required Social Work courses to continue in the major. More specific expectations and policies are detailed in the *Social Work Handbook* available to each major during the fall orientation period.

Requirements for the Bachelor of Science Degree in Social Work

Degree candidates in Social Work must (a) complete the General College Program, (b) complete prerequisite course work, (c) successfully complete the advancement process in the second semester of their sophomore year, (d) complete required Social Work courses (45 credit hours), and, (e) complete enough general elective hours and/or a minor to earn the 120 credit hours necessary to graduate with a baccalaureate degree.

Prerequisites:

SO 116	Introduction to Sociology	3
PY 129	Introduction to Psychology	3
BI 110	Human Biology	3
Statistics	BA 200, ED 200, PS 200, PY 200 or SO 200	3
SO 218	Introduction to Social Work	3
SO 272	Exploring Community-Based Social Work	3
		18

Required Social Work Courses:

SW 249	Social Welfare Institutions	3
PS 382	Social Welfare Policy	3
SO 300	Research Methods	3
SW 325	Social Work Practice Methods I	3
SW 340	Human Behavior in the Social Environment I	3
SW 341	Human Behavior in the Social Environment II	3
SW 370	Social Work Practice Methods II	3
SW 390	Social Work Practice Methods III	3
SW 480	Field Practicum I	5
SW 485	Field Practicum Seminar I	1
SW 490	Field Practicum II	5
SW 495	Field Seminar II	1
	Nine credit hours of Approved Social Work Electives	9
		45

In the list of courses below, to the right of each course name will be a letter corresponding to how often the particular course is offered. The key to the 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.

SW 249. Social Welfare Institutions B

Introduces students to the basic public and private sector mechanisms of social welfare policy and services through the lens of history. The historical relationships between mutual aid, government, non-profit, and proprietary agencies are explored. The development of the social work profession is discussed.
Prerequisites: SO 116, 218, or permission of instructor.

3 hours credit

SW 325. Social Work Practice Methods I B

The first of three sequenced social work practice courses in which students learn generalist social work theory and method. Application and integration of the person-in-environment perspective and problem solving method to intervene with micro systems is the focus. Social work roles, skills, and ethics are discussed and practiced. Cross-cultural issues and their practice implications are analyzed.
Prerequisite: successful completion of advancement process.

3 hours credit

SW 340. Human Behavior in the Social Environment I B

Explores the theories and knowledge of human bio-psycho-social lifespan development.
Prerequisites: BI 110; successful completion of advancement process.

3 hours credit

SW 341. Human Behavior in the Social Environment II B

Builds on the knowledge and theory learned in SW 340 by taking a social systems approach to analyze the impact of environmental forces such as racism, sexism and classism upon individual and collective behavior.
Prerequisite: SW 340.

3 hours credit

SW 370. Social Work Practice Methods II B

The second course in the social work practice sequence continues building the generalist social work problem-solving perspective by presenting the theory, knowledge, and skills needed when working with families and small groups. An emphasis is placed on discussing interrelationships with other systems and issues such as equality, fairness, and the obligations of group members.
Prerequisite: SW 325.

3 hours credit

SW 390. Social Work Practice Methods III B

The final course in the social work practice sequence presents theory, knowledge and skills needed when working with and within organizations, communities, and the larger society. Planned social and organizational change, social action, community development, needs assessment, and grants are examples of topics that will be discussed. The main emphasis is social and economic justice.
Prerequisites: PS 382, SO 300, SW 249, 341, 370.

3 hours credit

SW 480. Field Practicum I B

The first semester of a professionally supervised 500 total hour placement in a human services agency. Students are expected to complete 250 hours of direct service to individuals, families, groups or communities and/or other duties expected of a beginning-level social worker during the semester. Students are expected to apply social work theory, knowledge and method to actual cases, identify areas of professional growth, process their experiences, and begin assessing

their practice using standard research methods.

Prerequisite: approval of Field Coordinator.

Corequisites: SW 390, 485.

5 hours credit

SW 485. Field Practicum Seminar I **B**

Analysis of issues discovered through the practicum experience. In addition, students learn to understand and grow in their professional role through assignments such as writing a resume, completing a psychosocial assessment, and video/audio taping interviews. The use and role of supervision in social work is emphasized.

Corequisites: SW 390, 480.

1 hour credit

SW 490. Field Practicum II **B**

The continuation of the student's experiential learning at the same agency in which the student was placed in during SW 480. Students need to complete 250 or more hours of direct service practice and/or other duties expected of the beginning level social worker.

Prerequisites: SW 480, 485.

Corequisite: SW 495.

5 hours credit

SW 495. Field Seminar II **B**

An integrative seminar that expects students to integrate theory and knowledge with experience. Students will be expected to assess their professional practice through critical assessment of their skills, use of knowledge and theory, application of research methods in the context of the generalist model of social work practice.

Prerequisite: SW 480, 485

Corequisite: SW 490.

5 hours credit

Approved Electives - Individualized plan. Students secure the approval of their academic advisor.

SOCIOLOGY/ ANTHROPOLOGY

Office: W363 Thompson Hall
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E-mail: Soc@fredonia.edu

Anthro@fredonia.edu

David L. Larson, *Chairperson*

The Department of Sociology/Anthropology offers a major in the discipline of Sociology and minors in the fields of Anthropology and Sociology. An interdisciplinary major in Anthropology is proposed for 1990-2000.

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 degree program at SUNY 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.).

The department offers interested, qualified students a chance to work for credit on research efforts cur-

rently 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, anthropology, social work, public administration, and public health at a number of major universities. 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 6 and 53 respectively).

Student Honors and Awards

Alpha Kappa Delta: Sociology majors and minors who maintain a minimum 3.0 grade point average in their major or minor 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.

Requirements for the Bachelor of Arts Degree in Sociology

Core Program:

Thirty-nine hours in sociology and anthropology including:

	Hrs.
SO 116 Introductory Sociology	3
SO 200 Statistics for Sociologists (or equivalent)	3
SO 202 Social Analysis	3
SO 300 Research Methods	3
SO 308 Foundations of Sociological Theory	3
SO 309 Contemporary Sociological Theory	3

Supporting Courses in Anthropology:

AN 115 Introductory Anthropology	3
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Eighteen additional hours in sociology as advised including at least 6 credit hours from:

SO 204 Social Psychology	
SO 303 Social Class & Inequality	
SO 310 Sociology of Deviant Behavior	
SO 321 Population and Society	
SO 323 The Community	
SO 325 Complex Organizations	

Requirements for the Minor in Sociology

Eighteen credit 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, 302, 303, 308, 309, 310, 321, 323 and 325. The remaining 6 credit hours are free electives and may be taken from any of the department's sociology offerings. At least 6 credit hours must be at the 300 level or above.

Requirements for the Minor in Anthropology

Eighteen credit hours of anthropology including AN 115 (required); the remaining courses to be chosen

after consultation with an anthropology faculty member. At least 9 credit hours must be at the 300 to 400 level.

In the list of courses below, 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

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, overpopulation, 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 210. 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.

Prerequisites: SO 116. Sophomore standing.

3 hours credit

SO 272. Exploring Community-Based Social Work B

Explores how communities and the social work profession respond to social problems. Traditional classroom-based learning is combined with service learning activities to

increase student knowledge of the social service delivery system.

Prerequisite: SO 218 or permission of instructor.

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.

Prerequisites: SO 116, SO 200 or equivalent.

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 306. Sex and Gender B

Description and analysis of sex and gender roles and relationships from a variety of societies at different levels of socio-cultural complexity. *Note:* Also listed as AN 300.

Prerequisite: SO 116.

3 hours credit

SO 308. Foundations of Sociological Theory B

Critical examination of the modern grounding of sociological theory in the works of Durkheim, Marx, Weber and Simmel. Examines linkages of past with present in contemporary sociological enterprise. Considers developments through 1920.

Prerequisites: SO 116, SO 202 recommended.

3 hours credit

SO 309. Contemporary Sociological Theory B

Explores contemporary claims concerning what human beings are like, what society is, and what we can know about the two. The modern foundations of sociological theory are traced from functionalist, Marxist, and symbolic interactionist traditions through contemporary approaches grounded in phenomenological, critical, feminist, structuralist and postmodern theories.

Prerequisite: SO 116, SO 202 recommended.

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 B

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 B

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.

Note: Also listed as AN 301.

Prerequisite: SO 116.

3 hours credit

SO 316. Minority Groups A

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 319. Social Change and the Future C

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 B

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 B

An introduction to social demography, this course provides an overview of the three basic demographic processes: fertility, mortality, and migration. It evaluates the relationships among these population processes and their interaction with population structures and characteristics, such as age, sex, marital status, race/ethnicity, social class and religion. It also examines contemporary social issues associated with the population processes, including equality, aging, urbanization, women and household structure, economic development and environmental concerns.

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 325. Complex Organizations A

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 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 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. Medical Sociology 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 345. Women, Health and Society B

Examines ways in which health and illness for women are defined and managed. Topics include the medicalization of pregnancy and birth, adolescence and sexuality, addiction, mental health, menopause, body image, and women as health care providers.

Prerequisite: SO 116.

3 hours credit

SO 346. Mental Health and Society C

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 B

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 361. Law in the World C

Compares criminal law and justice systems of a variety of contemporary societies. Details characteristics of common law, civil law, and socialist law legal systems as contexts to

explore the practices of specific countries. Examines crime patterns across countries.

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

Introduction to the study of victim-criminal relationships. Issues of conceptual and empirical interest 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 400. Senior Seminar B

A capstone course for sociology majors that encourages the integration and critical appraisal of sociological and social issues to promote reflection on the field of sociology as a whole and its relation to other fields of knowledge. While subject matter may vary from year to year, the seminar involves in-depth study and critical examination of major social issues and important and enduring sociological concerns. The seminar also involves a collective project in which students focus on developing strategies to help resolve these issues and concerns.

Prerequisite: senior standing.

3 hours credit

SO 442. Criminal Justice Seminar A

Designed for those students doing criminal justice internships. Selected readings and group discussions to assist students in or

ganizing their field experiences and interpreting them in relation to major conceptual issues in criminal justice.

Prerequisite: permission of instructor.

1 hour credit

SO 470. Directed Study A

One to 3 credit hours of credit for individualized study under guidance of a member of the faculty.

Prerequisites: approval of instructor and department chairperson.

1-3 hours credit

SO 471. Field Research D

One to 3 hours credit assisting faculty members in research. May involve content analysis, interviewing, data processing, and gaining familiarity with computer operations.

Prerequisites: approval of instructor and department chairperson.

1-3 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. Dis-

cusses and analyzes various cultural systems.

3 hours credit

AN 210. Physical Anthropology D

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 C

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 B

Description and analysis of sex and gender roles and relationships from a variety of societies at different levels of socio-cultural complexity. Note: Also listed as SO 306.

Prerequisite: AN 115.

3 hours credit

AN 301. Plagues And Peoples B

Explores the impact of disease on human populations in terms of demographic, cultural and social changes. The rise of health care delivery systems as a response to epidemics. Examples include the bubonic plague of the 14th and 17th centuries, cholera, influenza, polio and AIDS. Note: Also listed as SO 312.

Prerequisite: AN 115.

3 hours credit

AN 311. Anthropology of the Supernatural D

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 321. Anthropology of Indian America C

Survey of past and present Amerindian peoples and cultures of North America. Both abo-

iginal lifeways and responses to white presence are emphasized for each culture-area.

Prerequisite: AN 115.

3 hours credit

AN 322. Anthropology of Africa B

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 B

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 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 345. Native People - Canada D

This course focuses on the peoples and cultures which existed in what is now Canada prior to the arrival of Europeans and examines the issues facing them today. It incorporates data from archeology, ethnography, ethnohistory, art, and political science.

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.

Prerequisites: 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 **D**

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 **D**

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

SOUND RECORDING TECHNOLOGY

(see also Music)

Office: 1004 Mason Hall
(716) 673-3151

E-mail: SRT@fredonia.edu

Peter J. Schoenbach, *Director*,
School of Music

Wayne Myers, *Interim Sound
Recording Technology Coordinator*

The Sound Recording Technology program is designed to provide undergraduate students with academic and professional preparation necessary for successful careers in music, sound recording, and related professions, and in technical, artistic, and management positions.

Core Curriculum: 35 credit hours

MU 001	Music Convocation	1
MU 100	Recital Seminar	0
MU 120	Concert Attendance	0
MU 019-020	Ensembles	0
MU 105-106	Applied Music	4
(MU 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	Applied Musicianship 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
		<hr/> 35

Sound Recording Technology Requirements (in addition to core):

ST 200-201	Recording Practicum	4
ST 250-251	Recording Practicum	4
ST 300-301	Recording Practicum	4
ST 350-351	Technology & Practices of the Sound Industry	6
ST 450-451	Senior Project/Seminar	4
CS 105	Visual BASIC Programming	3
MA 122-123	University Calculus I & II	8
PH 121-122	College Physics I & II or	6
PH 230-231	University Physics I & II	
PH 123-124	College Physics Lab I & II or	2
PH 232-233	University Physics Lab I & II	
PH 311-312	Acoustics I & II	3
PH 325	Electronics	3
PH 327	Electronics Lab	1

Internship: Internships within the recording industry are strongly encouraged, to be used as a bridge from the academic environment to fully professional work. Up to 15 credit hours of credit may be earned.

Electives: The following electives are recommended as generally appropriate for Sound Recording Technology majors: MU 380, Music Business; MU 440, 441, Electronic Music Composition I and II; CM 251 Audio Production I; CM 255, TV Production I; PH 326, 328, Digital Electronics; PL 275, Philosophy of Music; PY 342 and lab, Perception; SH 322, Hearing Problems and Tests.

In the list of courses below, 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

SOUND RECORDING TECHNOLOGY COURSES

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.

Prerequisites: ST 200 level courses.

2 hours credit each semester

ST 350-351. 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.

Prerequisites: 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.

Prerequisites: ST 300 level courses.

2 hours credit each semester

ST 460-461. 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.

1-15 hours credit

(Spanish, see Foreign Languages, page 62)

(Special Education, see Education, page 46)

SPEECH PATHOLOGY AND AUDIOLOGY

Office: W121 Thompson Hall
(716) 673-3202

E-mail: SpPath@fredonia.edu

Dennis M. Perez, Chairperson

The Department of Speech Pathology and Audiology seeks to combine professional preparation with a solid grounding in general and liberal education. To this end, the department offers two degree options; the Bachelor of Science in Education (B.S. Ed.), leading to provisional certification as a Teacher of the Speech and Hearing Handicapped, and the Bachelor of Arts in Communication Disorders and Sciences (B.A.), a pre-professional non-certification option.

Individuals qualified as Speech-Language Pathologists and Audiologists are in demand in a variety of educational and therapeutic settings. Those qualified at the bachelor's level readily obtain employment in school or pre-school settings. Upon completion of a master's degree, the graduate may elect to continue working in school settings or may seek employment in hospitals, medical practice groups, nursing homes, rehabilitation agencies or in private practice.

At SUNY Fredonia, the Bachelor of Science in Education of the Speech and Hearing Handicapped (housed in the Henry C. Youngerman Center for Communication Disorders) includes clinical practice and student teaching in schools. Recipients of

the B.S. Ed. are provisionally certified to work in the schools of New York.

The Bachelor of Arts degree option includes all the academic courses for the B.S. Ed., but in place of the practicum and student teaching courses, a 2-3 course sequence in two different academic departments is required. Choices and options are facilitated through advisement. Junior transfers and second baccalaureate degree students are advised into the B.A. program to facilitate timely completion of academic and degree requirements.

Upon completion of either degree option, students may elect to continue graduate studies in the same field. This major also provides a basis or impetus for specializations in education of the deaf, special education, linguistics, counseling and a variety of other professions.

The graduate programs at Fredonia in Speech-Pathology and Audiology are accredited by the Council on Academic Accreditation of the American Speech-Language-Hearing Association and are licensure qualified by the State Education Department.

Scholarships

The following scholarships are awarded by the speech pathology and audiology department: the Esau A. and Susan S. Sam Scholarship; the Schaffer Family Scholarship; the Rebecca Snyder Memorial Scholarship; the Lt. Gen. Louis E. Woods Scholarship, and the Henry C. Youngerman Scholarship.

Requirements for all Academic Majors

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 Department of Speech Pathology and Audiology.

1. A minimum overall GPA of 2.75.

2. A minimum overall GPA of 2.75 in all speech pathology and audiology courses completed.
3. Additional requirements as specified elsewhere.

Requirements for the Bachelor of Science in Education, Speech and Hearing Handicapped, and Provisional Certification

	Hrs.
SH 250 Speech and Language Development	3
SH 316 Speech Science	3
SH 318 The Speech and Hearing Mechanism	3
SH 321 Speech Pathology	3
SH 322 Hearing Problems and Tests	3
SH 323 Articulation and Language Disorders	3
SH 350 Phonetics	3
SH 327 Organization and Administration of Speech and Hearing Programs	2
SH 328 Clinical Methods, Speech and Hearing	3
SH 329 Clinical Practice (co-requisite SH 331)	3
SH 331 Lecture and Staffing Clinical Practice (co-requisite SH 329)	1
SH 418 Stuttering and Voice Problems	3
SH 419 Aural Habilitation and Rehabilitation	3
SH 432 Student Teaching of the Speech and Hearing Handicapped	10
	46

Required for Provisional Certification:

ED 215 Education in American Society or equivalent	3
ED 225 Developmental Psychology	3
ED 349 Educational Psychology	3
	9

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. These students must successfully complete the New York State Teacher Examination Program. Students are required to demon-

strate competence in a foreign language. This requirement may be satisfied in any one of the following four ways: (1) completion of course work at the 116 level at Fredonia, or (2) transferring of two successful college semesters, or (3) scoring at the 50th percentile or higher on the CLEP exam, or (4) completion of three years of high school language with a passing score on the Regent's examination (passing = 65).

Requirements for the Bachelor of Arts in Communication Disorders and Sciences

	Hrs.
SH 250 Speech and Language Development	3
SH 316 Speech Science	3
SH 318 The Speech and Hearing Mechanism	3
SH 321 Speech Pathology	3
SH 322 Hearing Problems and Tests	3
SH 323 Articulation and Language Disorders	3
SH 350 Phonetics	3
SH 327 Organization and Administration of Speech and Hearing Programs	2
SH 328 Clinical Methods, Speech and Hearing	3
SH 418 Stuttering and Voice Problems	3
SH 419 Aural Habilitation and Rehabilitation	3
A two-course sequence in two different academic departments by advisement.	12
	<hr style="width: 100%; border: 0.5px solid black;"/>
	44

Recommended for Future Certification

ED 215 Education in American Society	3
ED 225 Developmental Psychology	3
ED 349 Education Psychology	3
	<hr style="width: 100%; border: 0.5px solid black;"/>
	9

Requirements for a Minor in Speech Pathology and Audiology

Eighteen credit hours including:

SH 150 Introduction to Communicative Disorders	3
SH 250 Speech and Language Development	3
SH 350 Phonetics	3
Plus 9 hours selected from:	9
SH 318 The Speech and Hearing Mechanism	
SH 321 Speech Pathology	

- SH 322 Hearing Problems and Tests
- SH 323 Articulation and Language Disorders
- SH 418 Stuttering and Voice Problems
- SH 490 Independent Study

In the list of courses below, 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

SH 115. Introduction to Sign Language **B**

Introduces the student to three major areas of learning to use a signed language. First, deaf culture is explored. Second, manual communications as a language is surveyed. Third, the practical application of sign language as a method of communication is stressed and practiced. In class and out of class practice is emphasized.

3 hours credit

SH 150. Introduction to Communicative Disorders **B**

Introduction to and 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 **D**

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 **D**

Provides students in related programs with information about the communication problems and disorders associated with aging. Focuses 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 are discussed.

Prerequisite: open for non-majors only.

2 hours credit

SH 215. Intermediate Sign Language **B**

Prior completion of an introductory course in sign language required. Intermediate Sign Language extends the three major areas introduced in Introduction to Sign Language. First, deaf culture is analyzed by reviewing selected literary works. Second, manual communications as a language is critically analyzed. Third, the practical application of sign language as a method of communication is stressed and practiced. The course emphasizes a transition from signing English to American Sign Language.

Prerequisite: SH 115 Introduction to Sign Language.

3 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**

Examines the anatomical and physiological characteristics of the speech and hearing mechanisms. Specific focus on the integration of the respiratory, phonatory, supraglottal and hearing systems as they relate to speech production and perception.

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. It includes stuttering and voice disorders.

Prerequisites: SH 250, 318, 350.

3 hours credit

SH 322. Hearing Problems and Tests **B**

Introduction to acoustics, anatomy, physiology and pathology of the auditory system. Study and performance of audiology as ap-

plied 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.

Prerequisite: SH 250.

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 the communicatively handicapped. Observation of clients in clinical and laboratory environments; experiences specific to provision of clinical services.

Prerequisites: SH 250, 318, 350.

3 hours credit

SH 329. Clinical Practice, Communication Disorders A

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.

Corequisite: SH 331

3 hours credit each semester

SH 330. Clinical Practice D

As required.

3 hours credit

SH 331. Lecture and Staffing, Clinical Practice A

Weekly meeting with Clinic Coordinator for lectures on tests and procedures appropriate to the current clinical environment.

Co-requisite: SH 329

1 hour 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. Aural Habilitation and Rehabilitation B

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 D

Seminar devoted to assigned readings and to approved individual research. Strengthens student knowledge in specific areas in preparation 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 community-based programs. Cooperating clinicians supervise students engaged in the provision of testing and therapy services to the speech/language and hearing impaired.

Prerequisites: minimum of 21 hours in speech language pathology/audiology courses; recommendation by department; grades of "C" or better in SH 329.

10 hours credit

SH 450. Computer Applications in Communication Disorders D

Introduction to the use of microcomputers in speech-language pathology and audiology. Students are introduced to computer hardware and software and will explore diverse administrative, diagnostic, and therapeutic applications including assistive augmentative communicative systems.

Prerequisites: junior status.

3 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.

Prerequisites: senior standing; permission of instructor, advisor, and chairperson; contact department office prior to registration.

1-3 hours credit

SH 495. Topical Seminar in Speech-Language Pathology/Audiology C

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.

1-3 hours credit

THEATRE AND DANCE

Office: 213 Rockefeller Arts Center
(716)673-3596

E-mail: Theatre@fredonia.edu

Robert Klassen, Chairperson

It is the mission of the Department of Theatre and Dance to provide training for professional, community and academic theatres within the framework of a liberal arts education. The theatre and dance programs also serve 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 regardless of 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 greater the understanding of human existence by theatre majors in liberal arts, 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 and Dance 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 excel-

lence or the potential for excellence in performance and/or production design. It is designed for those students who enter college with a firm idea of their professional goals. Theatre is an accredited member of the National Association of 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. Minors in Theatre and Dance are available as well, allowing the pursuit of a secondary interest in theatre or dance as support for a major area or for personal growth and satisfaction.

Theatre students may participate in the Performing Arts Company, a student-run theatre group at the college. PAC presents one major production each semester and sponsors workshops and student experimental theatre. Juniors and seniors who contribute significantly to the theatre program and who attain a grade point average of 3.25 in their major, may be eligible for *Alpha Psi Omega*, a national dramatic society. Incoming freshmen may be eligible for the Jack L. Cogdill Scholarship, which is based on talent.

Admission to the Department

Bachelor of Arts - General Theatre Studies

All students who indicate Theatre as their first major preference and are academically accepted by the college are automatically admitted to the Bachelor of Arts General Theatre Studies program.

Bachelor of Fine Arts - Acting

In addition to admittance to the college, students must audition during the year prior to entering Fredonia at one of the designated audition dates or may audition during the first semester of residence. Audition information and application forms are available at the Department of Theatre and Dance office.

Transfer students should audition for the B.F.A. Acting program during the semester before transferring. The B.F.A. Acting degree requires four years for completion.

Bachelor of Fine Arts - Musical Theatre

For admission and degree requirements see page 109.

Bachelor of Fine Arts - Production Design

In addition to admittance to the college, prospective students must interview with the design faculty prior to acceptance into the program. This may be done during the year prior to attending Fredonia or B.A. General Theatre Studies students may be admitted during their first year in residence.

Dance

For information on programs and courses in Dance, see page 38.

Additional Requirements

Transfer students admitted into B.F.A. degree programs should expect to spend a minimum of three years on the SUNY Fredonia campus.

In addition to the specific and individual courses, periodic reviews of achievement/improvement will be conducted for the B.F.A. Acting and Production Design candidate with the purpose of determining advancement/retention. At the conclusion of the fourth semester, the student will be reviewed by the performance or design faculty and a determination made as to permission for continuance in the program. 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.

Students in the B.F.A. Acting and Music Theatre programs must present acting juries at the conclusion of the first year; at the end of each semester of the second year; at the end of the third year, and must perform a senior recital or a leading role

in a departmental production during their fourth year. B.F.A. Acting and Musical Theatre majors are required to audition for all Department of Theatre and Dance Mainstage productions.

B.F.A. Production Design students, prior to graduation, must formally present their portfolios and participate in the senior design exhibit.

All Theatre Arts 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 the total number of credits required in the B.F.A. Musical Theatre degree program.

All departmental majors must successfully complete a minimum of 30 upper-level hours and appropriate supporting courses as determined by faculty advisement.

Students who are on academic probation will not be permitted to perform in public performances nor will major technical crew assignments be permitted.

Transfer students in the B.A. General Theatre studies degree program must complete at least 60 percent (27 credit hours) of their major at Fredonia.

Degree Requirements

Bachelor of Arts

General Theatre Studies

TA 101-102	Theatre Practice	2
TA 110	Theatre Visiting Artists	4
TA 114	Intro. to Performing Arts	3
TA 117	Script Analysis	3
TA 121	Intro. to Tech. Theatre	3
TA 133	Intro. to Acting	3
TA 201-202	Theatre Practice	2
TA 220	Makeup	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>6</u>
		45

Students in the B.A. General Theatre Studies program must complete a total of 75 credit hours outside their major.

Bachelor of Fine Arts

Acting:

TA 101-102	Theatre Practice	2
TA 110	Theatre Visiting Artists	4
TA 121	Intro. to Tech. Theatre	3
TA 131	Acting Studio: Improvisation	3
TA 132	Acting Studio: Character Study	3
TA 140	Stage Dialects	3
TA 201-202	Theatre Practice	2
TA 220	Makeup	3
TA 231-232	Acting Studio: Scene Study I & II	6
TA 242-243	Acting Studio: Embodiment Levels I & II	6
TA 301-302	Theatre Practice	2
TA 331	Acting Studio: Styles	3
TA 333	Acting Studio: Audition Techniques	3
TA 342-343	Acting Studio: Stage Voice I & II	6
TA 361	Acting Studio: Period Movement	3
TA 362	Acting Studio: Silent and Vocal Masks	3
TA 401-402	Theatre Practice	2
TA 441	Directing I	3
TA 451-452	History of the Theatre I & II	6
TA 499	Performance/Production Seminar	3
EN 412-414	Shakespeare	6

Two courses from the following: 4-6

TA 353	History of Music Theatre	
TA 434	Acting Studio: Musical Theatre Styles	
DA 111	Modern Technique I	
DA 121	Beginning Tap Dance	
DA 131	Beginning Jazz Dance	
DA 211	Modern Technique II	
DA 221	Beginning Ballet	
AR 115	Masterpieces of Art to 1400	
AR 116	Masterpieces of Art from 1400	
HY 115	Western Civilization (Ancient to 1700)	
HY 116	Western Civilization (1700 to Present)	
MU 252	History of Western Music (1750-1875)	
MU 255	History of Western Music (1875 - Present)	

Bachelor of Fine Arts

Production Design:

Core Curriculum:

TA 101-102	Theatre Practice	2
TA 110	Visiting Artists	4
TA 114	Introduction to the Performing Arts	3
TA 117	Script Analysis	3
TA 121	Introduction to Technical Theatre	3
TA 123	Intro. to Tech. Production	3
TA 133	Intro. to Acting	3
TA 201-202	Theatre Practice	2
TA 220	Makeup	3
TA 221	Computer Drawing and Design Lab	1
TA 222	Stagecraft I	3
TA 223	Lighting Design I	3
TA 226	Scene Painting I	3
TA 228	Costume Crafts	3
TA 301-302	Theatre Practice	2
TA 303	Rendering Techniques I	1
TA 304	Rendering Techniques II	1
TA 305	Rendering Techniques III	1
TA 326	Scene Design I	3
TA 327	Costume Design I	3
TA 401-402	Theatre Practice	2
TA 441	Directing I	3
TA 451-452	History of Theatre I & II	6
TA 499	Performance/Production Seminar	3
AR 115	Masterpieces in Art to 1400	3
AR 116	Masterpieces in Art from 1400 to present	3
AR 150	Drawing I	3

Costume Design Emphasis

TA 325	History of Fashion	3
TA 328	Costume Design II	3
TA 329	Flat Patterning	3
TA 324	Lighting Design II or	3
TA 426	Scene Design II	3
TA 420	Special Studies (Section 3 - Costuming)	3
TA 482	Directed Study	3

Scenic Design Emphasis

TA 322	Stagecraft II	3
TA 325	History of Fashion	3
TA 420	Special Studies (Section 2 - Painting)	3
TA 426	Scene Design II	3
TA 427	Scene Painting II	3
TA 324	Lighting Design II or	3
TA 328	Costume Design II	3

Lighting/Technical Production Emphasis

TA 322	Stagecraft II	3
TA 324	Lighting Design II	3

TA 325	History of Fashion	3
TA 420	Special Topics (Section 1 - Technical Production)	3
TA 426	Scene Design II	3
TA 460	Theatre Management	3

Requirements for the Bachelor of Fine Arts in Musical Theatre

For information on the Bachelor of Fine Arts (B.F.A.) in Musical Theatre curriculum requirements, see page 109.

Requirements for the Minor in Dance, see page 38

Requirements for the Minor in Theatre

Twenty-one credit hours:

TA 101-102	Theatre Practice	2
TA 110	Theatre Visiting Artists (4 semesters)	2
TA 114	Intro. to Performing Arts	3
TA 117	Script Analysis	3
TA 121	Intro. to Tech Theatre	3
TA 130	Acting for Non-Majors or	3
TA 133	Intro. to Acting	3
TA 201-202	Theatre Practice	2

One of the following:

TA 325	History of Fashion	3
TA 451	History of Theatre I	3
TA 452	History of Theatre II	3
TA 460	Theatre Organization & Management	3

In the list of courses below, 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

TA 101-102. Theatre Practice A
Laboratory in performance or production involving applications of theatre techniques to the various aspects of departmental productions.

1 hour credit each semester

TA 110. Theatre Visiting Artists A
1/2 hour credit per semester; may be repeated.

TA 114. Introduction to the Performing Arts A
Overview of current and historical aspects of the performing arts. Elements covered in-

clude theatre, music and dance. 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. Introduction to Technical Theatre B

One-semester course covering terminology and processes of stage production including stagecraft, materials, lighting, sound, properties, costumes, etc. Lecture and laboratory participation. Concurrent enrollment in TA 101 by majors and minors strongly suggested. Written production critiques required.

3 hours credit

TA 123. Introduction to Technical Production B

Explores the responsibility of technical personnel, safety and organization of the backstage and scene shop, stage rigging, drafting for the stage, scenic materials and hardware. Practical work on department productions may be required. Lab fee.

Prerequisite: TA 121.

3 hours credit

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. Acting Studio: Improvisation B

Introduction to basic craft skills of acting with emphasis on self-awareness and discovery, spontaneity, and improvisation.

Prerequisite: B.F.A. Acting and Musical Theatre majors only.

3 hours credit

TA 132. Acting Studio: Character Study B

Introduction to theory and practice of the basic principles of Stanislavski realism with emphasis on character exploration and analysis.

Prerequisite: TA 131. B.F.A. Acting and Musical Theatre majors only.

3 hours credit

TA 133. Introduction to Acting B

Basic craft skills of acting with emphasis on improvisation, character study, analysis and scene work.

Prerequisite: Theatre Arts B.A. majors and minors only.

3 hours credit

TA 140. Stage Dialects B

Acquisition of basic skills by the performer or director in the use of major dialects. B.F.A. Acting and Musical Theatre majors only.

3 hours credit

TA 201-202. Theatre Practice B

Continuation of TA 101-102.

1 hour credit each semester

TA 220. Makeup A

Design, selection, application, and evaluation of stage makeup. Color theory and painting technique are stressed. Theatre arts majors only.

3 hours credit

TA 221. Computer Drawing and Design Laboratory B

Introduces the student to the use of discipline-specific software programs and peripheral hardware used in the creation of designs and preparation of drawings used in Technical Production and for Scenic Costume and lighting design.

Prerequisites: TA 121 and concurrent enrollment in TA 123. B.F.A. Production Design majors only.

1 hour credit

TA 222. Stagecraft I B

Drafting and construction of soft goods, platforms and wagons, framed scenery, stairs, cornice and trim. Further refinement of shop skills. Practical work on productions may be required. Lab fee.

Prerequisite: TA 123. B.F.A. Production Design majors only.

3 hours credit

TA 223. Lighting Design 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 123 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 123.

3 hours credit

TA 228. Costume Crafts B

Laboratory exploration of basic costume construction techniques.

Prerequisite: TA 123.

3 hours credit

TA 230. Introduction to Scene Study B

This course will present the fundamental principles of approaching the creation of a character on stage using the techniques of Stanislavski realism.

Prerequisite: TA 133. Theatre Arts B.A. majors only.

3 hours credit

TA 231-232. Acting Studio: Scene Study I & II B

Skills and techniques for role analysis and performance in realistic plays.

Prerequisite: TA 132; 231 must precede 232. B.F.A. Acting/Musical Theatre majors only.

3 hours credit each semester

TA 242-243. Acting Studio: Embodiment Levels I & II B

Inhabitation of the body/voice. Designed to support the performer in freeing the body/voice for creative response. Unveils physical and vocal awareness through the exploration of alignment, mobility, flexibility and strength.

Prerequisite: B.F.A. Acting and Musical Theatre majors only.

3 hours credit per semester

TA 301-302. Theatre Practice B

Continuation of TA 201-202.

1 hour credit each semester

TA 303-304-305. Rendering Technique I, II & III B

Explores the graphic media and drawing techniques used by the designer in preparing drawings for the theatre.

Prerequisite: TA 123.

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 322. Stagecraft II B

Drafting and construction of dimensional scenery. Planning, drafting and mounting the full production. Moving the multi-set show. Practical work on productions may be required. Lab fee.

Prerequisite: TA 222. B.F.A. Production Design majors only.

3 hours credit

TA 324. Lighting Design 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. B.F.A. Production Design majors only.

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. B.F.A. Production Design majors only.

3 hours credit

TA 327. Costume Design I B

Costume design methods and concepts. Students must enroll in TA 303, 304 or 305 simultaneously.

Prerequisite: TA 325. B.F.A. Production Design majors only.

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.

Prerequisite: TA 327.

3 hours credit

TA 329. Flat Patterning B

Flat pattern techniques as apply to the costume cutter. Use of slopers, methodology, and interpretation of sketches are emphasized.

Prerequisite: TA 228.

3 hours credit

TA 331. Acting Studio: Styles B

Approaches to various non-realistic styles of acting with emphasis on language found in period text.

Prerequisite: TA 232. B.F.A. Acting/Musical Theatre majors only.

3 hours credit

TA 333. Acting Studio: Audition Techniques B

Intensive study of skills needed by actors to increase their marketability in today's theatre.

Prerequisite: TA 232. B.F.A. Acting/Musical Theatre majors only.

3 hours credit

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. Acting Studio: Voice I & II B

Explores methods for freeing the voice for creative response to produce controlled, vitalized speech in performance.

Prerequisite: B.F.A. Acting/Musical Theatre majors only.

3 hours credit each semester

TA 353. History of Musical Theatre C

Development of the theatrical genre known as musical theatre. Special emphasis on musical comedy roots in nineteenth century America through the present.

3 hours credit

TA 361. Acting Studio: Period Movement B

Evoking believable movement through the ages. Elizabethan Courtly Intrigue and beyond. Students will go beyond the study of courtly manners to the practice of personal expression organic in the creation of convincing character. The Restoration, and early Realistic periods will also be explored in preparation for Acting Studio: Styles.

Prerequisite: TA 243. B.F.A. Acting majors only.

3 hours credit

TA 362. Acting Studio: Silent and Vocal Masks B

Neutral and Character mask work will begin the course with an exploration of physical forms and identities which bound from neutral into distinctly defined signatures of physical expression. Students will create their own masks and originate a performance composition. The second half of the course will be devoted to the vocal mask, Voice Overs. Students will learn the creative art of voice over technique for narration, with particular attention to range, support and articulation skills for the microphone, cold reading capability and the demo tape.

Prerequisites: TA 361; B.F.A. Acting majors only.

3 hours credit

TA 381. 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 420. Special Studies in Technical Theatre B

Seminar and laboratory experience exploring a variety of processes and techniques in depth.

Prerequisite: B.F.A. Production Design majors only.

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 432. Acting Studio: Musical Theatre Styles B

Advanced scene study and techniques for integrating all resources of the singing actor in musical theatre.

Prerequisite: TA 232.

3 hours credit

TA 435. Rehearsal and Performance A

Application of advanced techniques in preparation for studio and major productions.

0 hours credit

TA 436. Design/Technical Production A

Application of advanced techniques in preparation for studio and major productions.

0 hours credit

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.

Prerequisites: majors only.

3 hours credit

TA 442. Directing II D

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 443-444. Acting Studio: Voice III B and IV

Advanced training in the practical applications of vocal techniques for use in auditions and performance. Special attention is given

to the students individual needs and artistic development at the senior level.

Prerequisite: TA 343. B.F.A. Acting majors only.

3 hours credit each semester

TA 451-452. History of the Theatre I and II **B**

A survey of theatre history from pre-Greek to present. Performance and production elements in all ages will be covered.

3 hours credit each semester

TA 460. Theatre Organization and Management **B**

Theatre management including philosophy, management procedures, budgets, publicity/promotion, ticket office and house management procedures for educational, community and professional resident theatres.

Prerequisites: Theatre Arts major, or permission of instructor.

3 hours credit

TA 481. Senior Seminar **D**

Topics vary from semester to semester. May be repeated for credit.

Prerequisite: 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 professional theatre company.

Prerequisite: Permission of department.

Up to 15 hours credit

TA 499. Performance/Production Seminar **A**

Development and public presentation of a creative project as a senior recital.

Prerequisites: senior standing; B.F.A. Acting/Production Design majors only.

3 hours credit

WOMEN'S STUDIES

(interdisciplinary minor only)

232 Fenton Hall

(716) 673-3852

Jeanette McVicker, Coordinator

Women's Studies Program Office

E249 Thompson Hall

(716) 673-3158

E-mail: Wstudies@fredonia.edu

<http://www.fredonia.edu/womanstudies>

womanstudies

Women's Studies is the study and recognition of the social construction of gender and its grouping with class, race, age, ethnicity, nationality and sexual identity. Women's Studies is a recognized and vibrant curricular field, whose academic function is to analyze society's changing definitions of women and their roles and to offer analyses exploring why and how these changes came about.

The goals of the interdisciplinary minor in Women's Studies are: to introduce a recognized and well-documented area of scholarship to the college curriculum; to challenge the students to contemplate the ways that gender informs our knowledge of the world; and to support and enhance the college's commitment to pluralism and multiculturalism.

The academic core of the Women's Studies program focuses on:

- an interdisciplinary, multiperspectival approach to the concept of gender as a social construct;
- a critical and cultural analysis of the female experience through work in feminist theory;
- race, ethnicity, nationality, class, age and sexual identity as central categories of analysis.

Student Organizations and Activities

The Women's Student Union (WSU) provides opportunities for students to program special events, participate in relevant off-campus activi-

ties, and sponsor activities to raise awareness of women's and gender issues on campus and in the community.

Women's History Month, co-sponsored by WSU and Women's Studies, brings a diverse array of speakers and performers to campus in March to celebrate women's contributions and discuss contemporary issues facing both women and men.

An annual Undergraduate Conference on Women and Gender celebrates student research in women's studies and gender-related areas. Student winners present summaries of their work in a recognition ceremony.

Departmental Awards

The Dean's Award for Excellence in Research on Gender, a cash award, is presented during the undergraduate conference for the outstanding research of the entries submitted.

Completion of the interdisciplinary minor requires a minimum of 21 credit hours. Up to 6 credit hours of transfer credit may be applied to the minor, based on approval by the coordinator. Students declaring the Women's Studies minor may use past courses retroactively after consultation with the coordinator.

Required Courses (12 credit hours):

WS 201	Introduction to Women's Studies (offered in fall semester)	3
WS 301	Feminist Theory (offered in the spring semester)	3
WS 302	Sex and Gender (offered annually)	3
WS 401	Feminist Practice (Independent Study)	3

Elective Courses: Minimum of 9 credit hours from the following categories; each group must be represented

A. Women and Culture

AM 200	Introduction to Popular Culture
EN 296	Sex, Racism and Violence in American Literature and Culture
EN 314	Major Women Novelists

EN 340 Black Women Writers
 EN 397 Contemporary Multi-ethnic
 American Literature
 FL 405 French Women Writers
 FL 406 Women in French Literature
 HY 333-
 334 African-American History
 HY 335 American Women
 HY 339 20th Century American
 Culture
 HY 353 Creating American Consumer
 Culture
 HY 376 Film and American Culture
 PL 313 Philosophy of Sex and Love
 (Other courses such as the Brontes, Cana-
 dian Women Writers, Major American Poets,
 etc. as they are offered, with permission of
 coordinator).

B. Women and Society

AN 201 Anthropology of Human
 Problems
 or
 AN 219 Cultural Anthropology
 BI 360 AIDS and STDs
 CM 359 Gender and Communications
 EC 312 Women in the Economy
 PS 371 Civil Rights and Liberties
 or
 PS 382 Social Welfare Policy
 PY 276 Human Sexuality
 PY 286 Gender Differences
 PY 365 Social Development
 or

PY 370 Cross-Cultural Psychology
 SO 201 Social Problems
 or
 SO 303 Social Class and Equality
 SO 316 Minority Groups
 SO 320 Family Sociology
 or
 SO 321 Population and Society
 SO 322 Work and Society
 SO 345 Women, Health and
 Society

(Other courses as they are offered, after con-
 sultation with coordinator)

In the list of courses below, to the
 right of each course name will be a
 letter indicating how often the par-
 ticular course is offered. The key to
 course frequency codes is as fol-
 lows:

A - Course offered every semester

B - Course offered every year

C - Course offered every other year

D - Course offered on occasion

WS 201. Introduction to Women's Studies **B**

Interdisciplinary study of the social construc-
 tion of gender and its relationship to class,
 race, age, ethnicity, nationality and sexual
 identity. Analysis of the causes and implica-
 tions for the changing definition of women in

the contemporary world, especially in the
 United States.

3 hours credit

WS 301. Feminist Theory **B**

In-depth critical exploration of selected theo-
 ries to explain the sources of women's roles
 in society. A multidisciplinary approach will
 be employed to account for the social, eco-
 nomic, political and cultural status of women
 in contemporary societies.

3 hours credit

WS 302. Sex and Gender **B**

Description and analysis of sex and gender
 roles and relationships from a variety of so-
 cieties at different levels of socio-cultural
 complexity. *Note:* also listed as AN 300/SO
 306.

Prerequisite: SO 116 or AN 115 and Comple-
 tion of GCP parts I and II.

3 hours credit

WS 401. Feminist Practice (Independent Study) **A**

Directed study of student's own area of inter-
 est within women's studies, serving as a cap-
 stone to the interdisciplinary experience of
 the minor. The capstone may be a final proj-
 ect, undergraduate thesis, or community-
 based internship. Must arrange with coordi-
 nator prior to course selection.

3 hours credit

GENERAL ACADEMIC INFORMATION

The typical undergraduate program at SUNY Fredonia consists of four groups of courses: (1) the General College Program, consisting of courses in various branches of learning that are focused upon developing a range of skills and are 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. For information on academic departments and majors, see the first section of this Undergraduate Catalog.

On the graduate level, the college offers certification programs and master's degrees in a variety of fields. For details about post-baccalaureate work, see the separate Graduate Catalog, 1999-2001.

College offices generally 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. Exceptions to this are extended hours for some student service offices and Reed Library.

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, SUNY 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 SUNY Fredonia in the framework of the General College Program. A description of the 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 <i>or</i> analytical and critical thinking <i>or</i> creative/perceptual skills (may be in the major department)	3
Total	<u>12</u>

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. Transfer students who have completed an A.A. or A.S. degree from a SUNY or CUNY two-year college will have Parts I and II of the General College Program completed as part of their associate's degree. Other transfer students will need to have their transcripts evaluated for general education requirements, as discussed above. Courses in Part III of the program must be taken at SUNY Fredonia by all transfer students. Questions pertaining to academic advising may be directed to Cheryl Drout, director of the General College Program, 204 Maytum Hall, (716) 673-3783.

Academic Advising

The variety of programs both in major departments and in interdisciplinary areas at SUNY 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 are 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 should 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 SUNY 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. It is one of the marks of a successful student.

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, 614 Maytum Hall.

General Studies

General Studies students are those students who are exploring the major options offered at Fredonia. *General Studies is not a major*. Exploration will occur as the student takes courses which comprise the General College Program required of all students. Declaration of a major is not required until the second semester of the

sophomore year, the semester in which one customarily completes 60 credit hours. Most students decide on their major during the sophomore year, prior to reaching 60 credit hours. The chairperson for General Studies students is the Director of Academic Advising, 614 Maytum Hall. The Office of Academic Advising assigns a student's advisor, who may be a faculty member or a qualified member of the staff.

Fredonia in 4

Fredonia's formal response to students who require assurances that they will graduate in four years began with the freshman class entering in the fall of 1997.

Fredonia in 4 is a four-year guarantee program for first-time freshmen by which the college pledges to adhere to a commonly understood agreement with our students to schedule sufficient class offerings, provide required courses or suitable substitutes as determined by the department, and ensure qualified academic advising.

With the assistance of the Office of Academic Advising, faculty and staff advisors are able to ensure that students who are willing to adhere to the requirements for doing so, will graduate within four years. The spirit of the four-year agreement at Fredonia is to emphasize the college's commitment to provide all the essential ingredients that enable a student to graduate with a degree in four years. The rest is up to the student.

For more information about Fredonia in 4, students should contact the chairperson of their major department, or contact the Office of Academic Advising, 614 Maytum Hall.

3-1-3 Program

The SUNY Fredonia 3-1-3 program provides an opportunity for some high school seniors within driving distance of the college to take courses at Fredonia while they still have the close support of family and high school. The 3-1-3 program is a time-shortened, combined high school and college course of study which can lead to a B.A. or B.S. degree in three years after high school graduation. This is possible because the college gives credit for the successful completion of selected high school courses and the high school allows successfully completed college English and social science courses to count toward the high school diploma. Therefore, the name 3-1-3 means three years of high school, three years of college and one transitional year during which the student is enrolled simultaneously at his/her high school and at the college.

3-1-3 students are selected by the SUNY Fredonia admissions staff on the same basis as regularly admitted students.

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 Bio-medical Professions Council through the Department of Biology, located in Jewett Hall. 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. For information on Pre-Medicine and Allied Sciences, see page 123. Information on law may be obtained from the Pre-Law Advisory Committee through the Department of Political Science (for information on Legal Studies, refer to the section on page 86); on engineering from the Director of the Cooperative Engineering Program; and on the Cooperative Agriculture Program, from the Director of the Cooperative Agriculture Program.

Internships

Internships are an opportunity for students to learn from, and receive credit for, experience gained by working with an appropriate agency or office in the public or private sector. Student interns are under the dual supervision of a faculty member or sponsor and a representative of the organization in which they are working. Internships offer a student the opportunity to explore career options, test theories learned in the classroom, develop an understanding of the discipline required in the world of work, and develop interpersonal skills.

Internships are open to any student registered at Fredonia who has completed at least 30 credit hours and has a minimum GPA of 2.0. Internships may be taken in a student's major or in another department.

Nearly all departments on the Fredonia campus offer internships. Placements are available in a variety of offices in Washington, D.C. through the Washington Semester program; in Albany, N.Y. through the Albany Semester Program; and with the New York State Assembly and Senate. Other placement areas include art and photography, biology and environmental science, business and accounting, chemistry, communication, computer science, counseling, law enforcement and legal offices, journalism and public relations, health administration, sound recording technology, and theatre arts. The Internship Office has a number of sources of

information regarding past placements held by Fredonia students and other potential internships locally, nationally, and internationally.

Under guidelines approved by the Fredonia Faculty Council, an internship must be approved by a faculty sponsor and credit will be determined in part by the nature of the experience and the length of time involved. For further information, students should see the *Internship Handbook*.

Students may earn up to 15 hours of credit per semester for an internship and may count a maximum of 24 hours of internship credit toward the 120 hours required for an undergraduate degree. Students taking part in an internship must complete a Learning Contract and have it approved by their sponsor and the Internship Office. In addition, they must register for the appropriate course and pay the normal registration fee to receive credit. For more information, contact the Director of Internships at (716) 673-3451.

International Education

Fredonia students interested in international study can choose from the Study Abroad or Student Exchange programs:

Study Abroad. The State University of New York offers 350 overseas programs in 60 different countries: in North and South America, Africa, Asia, Western and Eastern Europe, Australia and New Zealand. They range from two or three-week intensive courses to a semester or entire academic year abroad. Students can choose courses in over 100 subjects from aboriginal studies or aerospace engineering to western philosophy or women's studies. Many programs concentrate on language learning and are conducted in the host country's language, but others are offered partially or completely in English. Study Abroad programs are open, with some exceptions, to all SUNY and non-SUNY students, from first year to graduate level. Usually, undergraduates study abroad during their junior year, but well-prepared sophomores and occasionally freshmen are eligible. Interested students are encouraged to contact Fredonia's Director of International Education to help them to determine when and where to go.

Cost is comparable to other highly-rated study abroad programs in U.S. public and private colleges. Program costs are usually only slightly higher than on-campus costs of tuition, room and board (excluding international air fare). In some cases, expenses are actually *less* than they would be on campus. Students pay SUNY tuition (in-state or out-of-state, depending on the student's residency status) plus costs which vary from program to program. Most financial aid can be applied to overseas study except for some program costs and fees. Students are urged to check with Fredonia's Office of Fi-

nancial Aid and also with the Director of International Education.

Student Exchange. These programs are offered by SUNY Fredonia in Europe and the Far East. Currently, Fredonia has formal student exchange agreements with Aichi University in Japan for an intersession, semester or academic year; with the American University in Bulgaria for a semester or academic year; with University of Oviedo in Oviedo, Spain, for a semester or academic year; and in the United Kingdom, for a five-week student teaching experience in Swansea Institute of Higher Education in Wales and Rolle Faculty College of Education, University of Plymouth, England.

In addition, the Office of International Education coordinates services for students from other countries who choose to study in Fredonia. Assistance with course selection and immigration matters, as well as acculturation, are provided.

One of the International Education office's top priorities is program development in other countries. The college is currently pursuing agreements in such locations as Venezuela and Mexico. Also available are short-term, credit-free experiences; an example would be traveling to Japan for a few weeks for an intensive study of the language.

While Fredonia students are away, the International Education office helps coordinate course registration and on-campus housing needs for the semester following their return. Students also receive periodic mailings and the school newspaper.

To apply, students decide the country they would like to study in, talk to their academic advisor about classes they might want to take abroad for academic credit toward their major, and pick up application forms from the International Education Office.

A semester or full year studying abroad can be among the most rewarding experiences a student can have; living in a new culture, meeting people and learning their language. In addition, students discover how U.S. customs, traditions, and values appear from a foreign vantage point. Because of the increasing interdependence of the world's regions, an international education is becoming the indispensable hallmark of a well-educated person, preparing students for citizenship and a bright exciting career.

For more information, contact the Director of International Education at (716) 673-3451.

Grants Administration/Research Services Office

Fredonia's Grants Administration/Research Services Office helps to identify potential external sources of funding for research and special projects, assists with proposal and budget development and preparation, es-

establishes audit and control procedures, monitors expenses, and aids in other ways necessary to obtaining and administering external grants and contracts.

Fredonia values the kind of faculty/student interactions that reveal the process of discovery and creativity which is basic to the scholarly process. The promotion of research experiences for undergraduates is part of Fredonia's mission. Increasing funding for faculty and student research is a basic element in the operations of the Grants Administration/Research Services Office. External funding not only makes support programs, such as the special fund in support of student presentations of scholarly papers at professional meetings, possible, but it provides funds which help to develop projects having the potential for future funding.

Summer Sessions at SUNY Fredonia

During the summer months, SUNY Fredonia offers a comprehensive program of undergraduate and graduate course work.

The availability of residence hall living and a wide range of recreational activities, along with a busy schedule of cultural events, enable the summer student to enjoy a full college life. The combination of intellectual stimulation in the classroom and a summer resort atmosphere on the campus can provide a very rewarding experience.

For additional information, students should contact the Summer Session Information Center at (716) 673-3177.

ACADEMIC AND STUDENT SERVICES

The college provides a variety of services and programs designed to support and enhance its educational programs 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.

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 1,500 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 important are an addition to the library and renovation of the main building, which were completed during 1994. These changes provide more space for library materials as well as varied and comfortable study areas for faculty and students. Reed has an online catalog, PALS, that allows students and faculty to search the library holdings from terminals on site as well as from other locations on and off campus. Students and other users also have access to the World Wide Web from workstations in the library. Another new technology allows for the use of numerous indexes and databases provided on the Internet through CARL and FirstSearch. Together with the on-line catalog, these systems have radically improved the way that patrons of Reed 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 a.m. to 11 p.m.; Friday, 8 a.m. to 10 p.m.; Saturday, 10 a.m. to 10 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, students should call (716) 673-3222.

Information Technology

The college provides a wide range of information technology services for students, faculty and staff. The college runs a campus-wide electronic mail system which is accessible from dozens of terminals on campus, from PCs in its computer labs and directly from student-owned computers in dormitory rooms. Fredonia also provides students, faculty and staff with access to the World Wide Web and other Internet services through web browsers on college-owned personal computers, through dial-up graphical web browsing and through direct hardwired links to student rooms in all dormitories.

Access to personal computers is now an essential part of any college education. The college encourages students to purchase their own PCs and bring these with them to campus; however, recognizing that many students are not in a position to do this, there are a significant number of computer laboratories on campus with Intel-based and Macintosh computers available hardwired to the Internet and host graphical web browsers as well as word processing, data analysis, programming and other course-related software.

Additional computer labs on campus are designed to be teaching facilities, optimized for classroom instruction. The Department of Communication houses the Sheldon Multimedia Laboratory and state-of-the-art facility dedicated to digital video processing. The Media Arts program also has a multimedia laboratory. The college also has 11 technology classrooms which provide faculty access to multimedia technologies for instructional purposes.

Students are encouraged to utilize the Media Center, located in W203 Thompson Hall, which houses speech pathology and audiology materials, a student graphics lab, e-mail terminals, PC/Mac microcomputers and media equipment to support classroom projects.

Student instruction in computer usage is provided by many academic departments. Instruction in computer science is provided by the Department of Mathematics and Computer Science, which also offers an undergraduate major and a minor in Computer and Information Sciences. The department has operated a Computer Science Laboratory (CS Lab) in Fenton Hall since 1984. The department manages two other laboratories within the building. The CS Lab has three kinds of computers. First is a network of 10 Silicon Graphics Workstations that run the IRIX operating system. Popular languages such as Ada, C++, C, Fortran, Java, OpenGL and other software development utilities are available on these machines. Second is a Microsoft NT-based cluster of 20 Pentium II workstations that run major state-of-the-art Microsoft software packages such as Office 97 and Studio 97. The third is the Linux-based cluster of servers connected to a high-speed network that provides Internet and dial-up services. The machines in the laboratory are accessible from various remote locations across the campus. These facilities are dedicated to supporting instruction in the Computer Science major, as well as the creative and scholarly activities of faculty and students. The other two laboratories that are managed by computer science are primarily instructional laboratories and are open to students taking computer science courses. These laboratories mostly house a network of Pentium II workstations that run under Windows NT and 95. Major Microsoft software packages are available on these machines. More information about the Computer Science

programs may be obtained from the department's web site at <http://www.cs.fredonia.edu>.

The Office of Administrative Information Technology is converting administrative record keeping and retrieval from a large scale unisys A Series enterprise server to Systems and Computer Technologies (SCT) Banner 2000 software using a Digital Alpha 4100. This integrated database will maintain student records for Admissions, Advising, Alumni/Development, Faculty Advising, Financial Aid, general Ledger/Finance, Institutional Studies, Registration, Residence Life and Student Accounts/Receivables.

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 has been rated among the best in the SUNY system in recent Student Opinion Surveys administered by the American College Testing service.

The computer SuperLab in the Learning Center provides students with a variety of word processing programs on both Pentium and Power PC platforms. Learning Center tutors are available to assist students with academic work using programs for calculus, business, computer science, and the natural and social sciences. Internet and electronic mail capabilities give students access to a world full of electronic research tools.

The Learning Center encourages students to take full advantage of the SuperLab whenever equipment is not required for tutoring or workshops. For more information, visit the Learning Center in Hendrix Hall or call (716) 673-3550.

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.

The Learning Center provides language support services for English as a second language (ESL) students and is also the home of Disabled Student Support Services and the Full Opportunity Program.

Educational Development Program

The Educational Development Program (EDP), known statewide as the Educational Opportunity Program (EOP), is an academic and financial support services program administered by the State University of New York. It is designed to provide a college education for talented students who have not had an opportunity to

realize their academic potential. EDP serves students from diverse backgrounds with priority for admission given to the “historically disadvantaged.”

Additionally, program graduates can 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. Internships
2. Counseling Services
 - a. Academic advisement
 - b. Individual and group
 - c. Career
 - d. Freshmen seminar course
 - e. Personal and social
 - f. Peer advising
3. Financial Assistance
 - a. Financial aid for qualified students
 - b. Financial planning

Students should review the Educational Development Program eligibility and admissions criteria on page 167 of this catalog. Students interested in the program should look for the EDP homepage at <http://www.fredonia.edu/edp>.

Career Development Office

The Career Development Office provides a link between the campus and the world of work. The professional staff helps freshmen through alumni to:

- explore options and make career/major/job choices
- plan strategies to gain experience and identify skills to become competitive
- develop skills to implement a successful job search
- learn how to apply to graduate or professional school
- locate information and opportunities to help you make decisions or implement your plans
- get connected to employers and graduate schools

Outline of Services

Individual Counseling. Students are urged to make an appointment early in their college experience to examine the expectations they may have for a degree program, major, and possible occupations. Computer

programs, paper and pencil inventories, career information, and information interviewing are used to supplement counseling appointments. A counseling appointment is also recommended to identify strategies and find information to implement a job search.

Drop-in Hours. A counselor is available without an appointment to help locate information, critique resumes and cover letters, and answer questions about internships, summer jobs, or applying to graduate or professional school. Current Drop-in Hours are Monday through Thursday from 2 to 4:30 p.m. when classes are in session.

CDO Online. Visit the CDO home page at <http://www.fredonia.edu/cdo> to learn more about the office and to find related Internet links.

Workshops. The staff makes presentations to student clubs, classes and residence halls about career options, internships, summer jobs, resume writing, job searching (including Internet searching), interviewing, and graduate or professional school application issues.

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.

Career Guides. These self-help guides are written on a number of topics related to career choice, job search, resumes and cover letters.

Job Search Information. Writing a resume, job search strategies, writing cover letters, and interviewing techniques are covered in books and videotapes. Registration bulletins and test dates for the NYSTCE for teacher certification are also available in the office.

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.

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 non-profit; government; arts and media; and summer jobs and internships.

Recruiting Literature. Large organizations and many school districts often produce brochures describing their career opportunities. Links to related Internet sites are available through *CDO Online*.

Credentials File. Students about to complete a degree program 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.

Job Vacancy Listing. Vacancies received are posted, compiled weekly for those desiring to receive them by mail, and are accessible electronically through *CDO Online*.

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 Fair, Career Night with Fredonia Alumni, Exploring Business Careers Fair and JobQuest. The Recruitment Calendar, published each semester, includes the dates for these events as well as dates for similar events held in other geographic locations.

Alumni Career Connection. This network of alumni volunteers assists students with career-related concerns.

Graduate and Professional School Information. Directories of graduate programs, graduate catalogs on CD-ROM, books on financial aid and how to write an application essay, as well as registration bulletins and test dates for the GRE, GMAT, MCAT and LSAT are available in the office. Preparation software, books and videos are also available.

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 fall, 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; social service, non-profit and government; 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. Information about the first year plans of recent graduates is available on request from the Career Development Office.

The office is located on the second floor of Gregory Hall and can be reached by phone at (716) 673-3327 or by fax at (716) 673-3593.

Counseling Center

The purpose of the Counseling Center, located in Lo-Grasso Hall, 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. In a recent Student Opinion Survey, Fredonia's Counseling Center was ranked second among other SUNY counseling centers.

All students may use the center without charge. Appointments can be made in person or by telephoning (716) 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, substance abuse, and self-esteem issues.

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 are available for adult children of alcoholics, eating disorders, survivors of sexual abuse, substance use, sexual identity, 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 inservices 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.

Office of Multicultural Affairs

The Office of Multicultural Affairs is dedicated to the premise that all cultural heritages can be celebrated on the SUNY Fredonia campus. Combining talents and resources with the Black Student Union; Latinos Unidos; Women's Student Union; Gay, Lesbian, Bisexual Student Union; Gospel Choir; Native American Student Organization; Student Association Diversity Awareness Committee; Solutions; and the Brother to Brother/Sisters Supporting Sisters discussion groups; Multicultural

Affairs staff members put on a comprehensive array of programs that address the areas of cultural appreciation, gender equity, homophobia elimination, prejudice reduction, and multicultural harmony.

Additional services provided by the Office of Multicultural Affairs include academic, personal, financial aid, group, and career counseling; student advocacy; leadership development; mentoring programs; and various other campus-wide diversity initiatives. For more information about the Office of Multicultural Affairs please call (716) 673-3398.

STUDENT LIFE ON CAMPUS

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. The housing license agreement is for the *entire academic year* and cannot be canceled during this period as long as the student is registered. There is a \$200 fee for *approved* termination of the housing contract.

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.

There are 13 residence halls on the SUNY Fredonia campus, including corridor and suite-style, as well as apartments. 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.

The Residence Life Office continually reviews the interests and objectives of students in an effort to provide facilities that will assist them in the educational process. Recent additions to the program include computer labs in Grissom, Kasling, Hemingway, Alumni and most other halls, as well as an Aerobics Center in Hemingway Hall and a Wellness Center in Schulz Hall.

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 (pages 169-172).

Off Campus. Files of available off-campus housing are maintained in the Student Association Office located in the Williams Center.

Faculty Student Association

The Faculty Student Association (FSA) is a not-for-profit corporation governed by a board of directors composed of seven students, three college administrators, three faculty and one classified staff member. It operates under a contract with the State University of New York in conformance with guidelines established for all SUNY campuses. FSA receives no government subsidies, and is self supporting through the sale of its services. Any income after operating expenses is used to benefit the college by supporting campus programs. FSA administrative and food services offices are located in Gregory Hall. For information, students should call (716) 673-3417.

Food Service

The FSA operates two cafeterias on campus: Cranston Dining Center and Erie Dining Center. These facilities feature traditional meals and specialty items. When the college is officially closed and classes are not in session, services are not available in dining centers.

On the lower level in the Williams Center, the *Connections Food Court* features hamburgers, French fries, pizza, wings, submarine sandwiches, and deli sandwiches.

College policy requires dormitory residents to select from a variety of meal plans. Please refer to page 169-170 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 SUNY Fredonia students. These cards are issued at no charge by the FSA office when students begin their studies at Fredonia. 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 **Connections Bookstore** provides new and used textbooks as well as a variety of reference and computer books. Located in the Williams Center, the bookstore also offers school and art supplies, teaching aids, health and beauty aids, college seal items, clothing, greeting cards, and a unique array of gift items. Its computer department features hardware, software and a wide range of computer supplies and peripherals. Within the bookstore is a cafe offering a relaxing atmosphere to browse the shelves of general reading and enjoy a sweet snack or a light meal. The bookstore also offers convenience store 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. In addition, electronic banking machines are available on campus.

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 Williams Center 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.

Bookstore Campus Account - A student pre-paid plan can be used for purchases in the bookstore. This pass affords students the convenience of making purchases without carrying cash.

Student Employment - FSA 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.

Student Health Center

The Student Health Center 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 by the mandatory health fee paid each semester. Services and most medications are covered with the exception of allergy injections.*

The outpatient clinic cares for minor illnesses, injuries, referrals, wellness counseling, health education and laboratory services. This well-equipped modern health center provides 8 a.m. to 6 p.m. coverage Monday through Friday, and Saturday from 10 a.m. until 1 p.m. Some laboratory procedures, minor surgery, and urgent care are also available in the health center.

Emergency coverage is available at Brooks Memorial Hospital in Dunkirk.

Health and accident 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.

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 SUNY Fredonia students, male or female. Located in LoGrasso Hall, the gynecological clinics are staffed by qualified physicians, nurses, a lab technician, and student 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.

University Police Department

The University Police Department, located on the second floor of Gregory Hall, is responsible for all law enforcement related issues on campus.

Members of the department are trained in a community policing environment where students and the campus community share in keeping the college a safe place to study and work. University Police Officers are responsible for the security of all buildings and the protection of students, employees, and visitors. Duties include community policing, parking enforcement and all investigations.

Inspection of all buildings for fire and safety codes and the maintenance of fire extinguishers are also the responsibility of the department.

The chief is assisted by three lieutenants and 12 officers. The office maintains a close working relationship with the Fredonia Police Department and other law enforcement agencies in Chautauqua County.

Office of Veterans Affairs

Veterans and their dependents who receive educational benefits through the Veterans Administration are assisted by this office, located in 3176 Mason Hall (716 673-3423). Applications are processed through this office and students experiencing problems with benefits can receive assistance or referrals (see also page 182). This office also serves as the campus liaison with the V.A. Regional Office in Buffalo.

FREDONIA ORGANIZATIONS AND ACTIVITIES

Campus Life Office

The Campus Life Office, located in the Williams Center, helps students fill the hours when they are not in the classroom. The office is a place for students to schedule concerts, dances, movies, lectures, student organizations' meetings and a host of campus activities. Some of the services the office and staff provides are:

- advisement to student organizations
- providing a meeting place, by reservations, for groups and organizations
- maintaining leadership development programs and workshops for students, organizations and advisors
- serving as a reference base for volunteer services and conferences
- facilitating advertisement for campus/organization events
- printed materials on a variety of topics

In addition to the above services, the Campus Life Office plans Family Weekend, Summer Orientation, and works closely with Homecoming, Commencement, Admissions Open Houses, Superdance, and the conference committee.

For students' leisure and recreational pleasure, Campus Life also offers The Spot, Fredonia's newest night club. Included in The Spot is the Side Pocket game room offering pool tables, foosball and the latest in video games, and a coffee bar, serving a variety of coffees and cappuccinos, pastries, bagels and muffins. Adjacent to the coffee bar is the night club, complete with staging for small concerts and the latest in sound equipment and lights for dancing to the early morning hours.

The Williams Center lobby is open Monday through Friday, 8 a.m. until midnight, and Saturday and Sunday from 11 a.m. until midnight, when classes are in session. The Spot remains open on the weekends until 2 a.m. for dancing and special events. For more information, students should contact the Campus Life Office at (716) 673-3143.

Central Box Office

The Central Box Office is a full-service outlet located on the main floor of the Williams Center. Its main function is in providing tickets for events on campus and the outlying communities. Tickets for theater, musical concerts, graduation, plus bus transportation to all areas of the United States and Canada are available to students. In addition, the Central Box Office operates the Fredonia Travel Service which offers students charter bus serv-

ice during holidays, to the Southern Tier, New York City and Long Island. Greyhound, Empire Transit and Trailways charters, schedules and tickets are also available. Amtrak schedules and tickets are now available on 24 hours notice. Other services offered include Western Union incoming money transactions. The Central Box Office is open during the academic year from Monday through Friday from 9 a.m. until 5 p.m., and on Saturday from 1 until 5 p.m.

The Student Association

The Student Association is made up of all fee-paying students at SUNY 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 and an executive assistant. A Speaker of the House is elected by the Assembly. 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 Williams 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.

Art Forum

The 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.

Black Student Union (BSU)

The Black Student Union, which has been in existence for over 25 years at Fredonia, 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 organization's annual events include the People of Color Concerns Conference, the Black Achievement Awards Dinner, a fashion show, and Kwanzaa, an African-American celebration that is an affirmation of cultural self-determination. Such people as Dr. Na'im Akbar, Kwami Toure, Dr. Bruce Bridges, Dr. Ivan van Setima, Jill Nelson, Bill Bellamy and Dr. Ali Rashad Umrani, 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, the Four Freshmen, Alan Thicke and Robert Klein.

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. Activities include attending theory and composition conferences.

Fredonia Jazz Ensemble

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 experiences in jazz to the local community through concerts and campus sponsored dances.

The Leader

The Leader is the student-run newspaper of SUNY 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 Student Services and Program Charge. *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.

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.

Student Opera Theatre Association (SOTA)

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. 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 SUNY Fredonia. PAC presents two productions a year, one per semester, and also funds student experimental theatre and sponsors workshops ranging from performances to technical theatre. It is a creative outlet for interested theatre students and is frequently the stepping stone to 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. Major concerts have included the MTV Village

Tour, Wyclef Jean, De La Sol, and Mighty Mighty Bosstones.

Fredonia Radio Systems

Fredonia Radio Systems includes both WDVL-Cable 89.5 FM and WCVF 88.9 FM. These two stations provide SUNY Fredonia students and Northern Chautauqua County with radio programming designed to inform as well as entertain. They also provide valuable training for those interested in any aspect of broadcast communication.

WDVL, "The Inferno," began operations as WCVF-AM in the early 1940s and is the oldest radio station in the SUNY system. This commercial station programs contemporary rock as well as campus news and sports to its on-campus audience of students. WCVF, "The Voice," went on the air in 1978, broadcasting to Fredonia and surrounding communities. It is a non-commercial station licensed by the FCC to the SUNY Board of Trustees, and features a variety of public affairs, news (both local and National Public Radio), sports, and a progressive blend of alternative music styles from jazz, folk and blues, to reggae, techno, world beat and rock, with an emphasis on new music.

Fredonia Radio Systems offers all students, regardless of major, the opportunity to work in the following departments: management, business, promotion, sales, traffic, music, production, news, sports, community service, and engineering. The station is managed and staffed by volunteers. Its offices and studios are located in McEwen Hall.

WNYF-TV

WNYF-TV is a completely student-operated cable television station located in the lower level of Hendrix Hall, equipped for studio and field production and editing, with some of the latest digital technology. WNYF gives its student members an intense professional experience in television production, and fosters a real *esprit de corps* as a fun, hard-working campus group. The station cablecasts a variety of award-winning programming to the village of Fredonia, the city of Dunkirk, and the college campus.

Absolutely no experience is required to join the staff of WNYF, and all majors are welcome. Students can gain experience in all production areas by producing, writing, directing, and editing, or taking on-air roles from news and sports to drama. Members have the opportunity to create, develop, and produce their own programs, as well as join the decision making board. An Oscars-style awards ceremony (The Freddy's) is held each year to honor the best of station production.

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

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 SUNY Fredonia, including student poetry, fiction and photography. The guild sponsors poetry readings and workshops. In 1992, the guild brought Gwendolyn Brooks, a major American poet, to campus for a workshop and poetry reading and in 1993 "Black Mountain" poet Robert Creeley. 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 Office of Campus Life (Williams Center, State University of New York College at Fredonia, Fredonia, NY 14063) or stop by the office when on campus for the latest guide to Student Organizations. 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
AKAFELLAS
ALOT
Alpha Kappa Alpha
Alpha Phi Omega
American Choral Directors Association
American Marketing Association
Applied Communication Association
Audio Engineering Society
BACCHUS
Beta Beta Beta
Birth Control Information Center
Blackhorse Rugby
Business Club
Cheerleaders
Coed Volleyball Club
College Republicans
Competitive Computer Club
Computer Science Club
Dance Team
Delta Chi
Delta Kappa Omicron

Delta Phi Epsilon
 Delta Chi fraternity
 Delta Phi Epsilon sorority
 Drill Team
 Economics Club
 Field Hockey Club
 French Club
 Gay Lesbian Bisexual Student Union
 Geology Club
 German Club
 Get Into the Volunteer Experience
 Golf Club
 Gospel Choir
 Guitar Society
 Health Services Administration Association
 Help Service
 Interfraternity Council
 Inter-Varsity Christian Fellowship
 Jewish Student Union
 Lacrosse Club
 Latinos Unidos
 Leadership Corps
 Medieval Re-enactment Club
 Men's Volleyball
 Music Educators National Conference (MENC)
 Music Therapy Club
 Mutual Investment Club, Inc.
 Native American Student Association
 Newman Club
 Old School
 Panhellenic Council
 Paranormal Research
 Phi Kappa Sigma Fraternity
 Philosophical Society
 Political Science Association
 Project Environment
 Psychology Club
 Resident Assistant Advisory Board
 Rock Stars Anonymous
 Rocky Horror Fan Club
 Sigma Alpha Iota
 Sigma Kappa Sorority
 Sigma Phi Epsilon Fraternity
 Sigma Tau Pi
 Ski Club
 Snowboarding Club
 Social Work Club
 Sociology Club
 Solutions
 Sound Services
 Speech Pathology & Audiology Society
 Teacher Education Club

Tonemeisters
 Trumpet Guild
 Upper Class Buddy System
 War Gamers Club
 Wilderness Club
 Women's Student Union

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, Superdance, and Homecoming.

Other Campus Activities

The groups and activities previously mentioned are joined 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 *Fredonia 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.

Students are encouraged to participate in the Undergraduate Alumni Council (UAC) which assists in the coordination of alumni/student activities. Actively involved students 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 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, solo student shows, visiting artist work, and other small exhibits throughout the year.

Department of Athletics

Fredonia has a long and storied history of successful competition on athletic fields, courts and rinks across the state. A highly respected coaching staff has produced over 100 collegiate All-Americans and a plethora of team championships at the division, conference and regional level. Fredonia's coaches also serve on advisory committees throughout the east and have held top positions in a number of state-wide, regional and national organizations.

Offering a wide range of programs for students wishing to participate at a competitive level, SUNY Fredonia sponsors athletic teams for men in the following sports: baseball, basketball, cross country, hockey, soccer, tennis, and track and field. Offerings on the women's side include: basketball, cross country, lacrosse, soccer, softball, tennis, track and volleyball. A co-educational cheerleading team competes successfully as a varsity sport while junior varsity teams are available for men in basketball and soccer.

All full-time undergraduate students are eligible to try out for Fredonia's athletic teams. Athletic eligibility is determined through the office of the Director of Athletics. Varsity athletes must comply with all appropriate rules and regulations of SUNY Fredonia, as well as those of all playing conferences with which Fredonia is affiliated. In addition to being certified eligible to participate through the Athletic Director's office, each prospective student-athlete must receive clearance from the Student Health Center prior to participating in team activities including practice, staff-supervised pre-season conditioning, and contests. All student-athletes are encouraged to enroll in the college's insurance program or provide the Director of Athletics with evidence of personal health and accident insurance coverage.

The athletic policies of SUNY Fredonia are developed by the Director of Athletics in conjunction with the Inter-collegiate Athletic Board, an advisory board to the College President composed of faculty, students and administrators. Athletic affiliations are maintained with the NCAA, ECAC, NYSWCAA and SUNYAC. While programs range in strength from national level competition to competitive conference play, the college encourages students try out for teams if their ability warrants.

Intramural and Recreational Activities

The Intramural and Recreational Activities Program is conducted under the direction of the Department of

Health, Wellness, and Recreation, and is funded by the State of New York and Student Association fees.

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

Facilities include Dods Hall, with classrooms, gymnasium, the Blue Devils Fitness Center, dance studio, and racquetball courts, and Steele Hall, which contains an indoor ice skating rink and track-basketball arena. There are also outdoor tennis courts and outdoor track and playing fields.

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 a 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.

Michael C. Rockefeller Arts Center and Visiting Artists, Ensembles and Speakers

The Michael C. Rockefeller Arts Center, a magnificent performing and visual arts facility, includes the 1,200-seat King Concert Hall, the 400-seat Marvel Theatre, the Bartlett Theatre, and two art galleries.

Over 220 public events are presented each season for the benefit of campus and community audiences.

SUNY 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 arts center with the Spectrum Entertainment Board.

Each season, the center presents the *Someplace Special Pops Series*, four evenings of musical relaxation and enjoyment. Guest ensembles on the series have included the Glenn Miller Orchestra, Keith Brion and the New Sousa Band, and the Epic Brass. Also appearing on this series has been the Fredonia Chamber Pops Or-

chestra 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 Fredonia Wind Symphony* is a select ensemble of approximately 50 members. It performs advanced concert band literature, emphasizing contemporary works and chamber literature. The Fredonia Wind Symphony is a touring group.

* *The Concert Band* plays concert band literature from all style periods and orchestral transcriptions. An audition is required.

* *The Symphonic Band* plays concert band literature from all style periods and orchestral transcriptions. An audition is required.

* *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.

* *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 touring 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 touring ensemble.

* *The Womens Chorale* studies and performs sacred and secular literature from all style periods. An audition is required.

* *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:

Flute Ensemble - performs music composed or arranged for 12 flutes.

Guitar Ensemble and Guitar Quartet - ensemble of 12 guitar majors and quartet, both touring groups, perform transcriptions and original music. Quartet is a select ensemble.

Percussion Ensemble - performs mainly contemporary works.

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

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 Gilbert 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 SUNY 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 SUNY 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.

Student Theatre Activities

Mainstage Productions. Five major theatrical productions are presented each year. These efforts of the Department of Theatre and Dance 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.

HONORS

Maytum Lecture

The Maytum Lecture 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 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 Program

Within the framework of the General College Program, SUNY 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. Questions pertaining to the Honors Program may be directed to Theodore Steinberg, director, at 2104 Fenton Hall, or at (716) 673-3529.

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

Students whose cumulative quality point average indicates high scholastic attainment will be awarded their 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 3.30 and 3.49.

Students may graduate with honors only when they have completed at least 45 hours of graded work at SUNY 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 SUNY Fredonia will be computed in the final average.

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 3.30 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.

Lanford Prize

The Lanford Presidential Prize is presented at Commencement to a member of the graduating class who has demonstrated balanced achievement. The recipient is selected by nomination from among those students whose accomplishments exemplify the college's ideals. Criteria for selection include a high degree of personal honesty and integrity, substantial intellectual growth and achievement during college years, a minimum grade point average of 3.0, and exemplary service to SUNY Fredonia, including active participation in more than one area of college life. The award is named for President Emeritus Oscar Lanford.

Other Academic Honors

SUNY 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 174.)

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 communication courses.

Alpha Kappa Delta. Sociology majors and minors who maintain a minimum 3.0 grade point average in their major or minor 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 3.25 in their major 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 12 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 psy-

chology 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.

UNDERGRADUATE ADMISSIONS

Submitting the Application

The State University of New York College at Fredonia participates in the common SUNY application procedure. If you are a resident of New York State you may obtain a copy of the common application form from any high school guidance office or SUNY campus. As a transfer student or out of state resident, please contact the Office of Admissions, Fenner House, State University of New York College at Fredonia, Fredonia, NY, 14063 to make your request for an application.

Mail your completed application to the Application Processing Center in Albany in the envelope included with the application packet. (Freshman applicants turn applications in at the guidance office.) APC processes your application and forwards it to Fredonia for review. Processing time in Albany is no more than 48 hours from the date received. Upon arrival at Fredonia we acknowledge your application and send you Part II, the Supplemental Data Form. Also, Part II provides additional information to the Scholarship Committee if you are being considered for a Fredonia College Scholarship. Return this information to us as quickly as possible as this part of the application provides more individualized information about you. Your request for admission will be reviewed individually by our Admissions Committee. While there is no stated application deadline, we recommend that you submit your request for admission as soon as possible, as there are a limited number of openings in some academic programs. Consider November 1 for the spring semester and March 1 for the fall semester as recommended deadlines.

The Campus Visit

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

You are invited to visit the campus to discuss your application with an admissions counselor, meet with a faculty member in your chosen field of study, and tour the facilities. We offer small group information sessions and campus tours weekdays while classes are in session. There are a number of special visitation programs throughout the academic year, including holiday open house programs on Columbus Day, Veterans Day and Presidents' Day. You may visit during the summer as well. Request information about specific dates and times for arranging an appointment by writing the Office of Admissions, calling (716) 673-3251, dialing toll-free at (800) 252-1212, or accessing our web site at www.fredonia.edu.

We schedule an open house for accepted students during the spring semester. At this program, members of

the college faculty, administration, and student body discuss our curricular options, financial aid, social and cultural activities, the residence halls, and student support 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. Use the Greater Buffalo International Airport if you are traveling by air. Several buses operate daily between Buffalo and Fredonia. Amtrak provides rail service to the area. Check with your local travel agent to determine the best connections for you.

The Decision Process

We offer you the opportunity to declare your major program of study when you enroll at Fredonia. Approximately two-thirds of all new freshmen select a specific academic major, although the decision to choose your program of study is optional. You must select a major by the end of your sophomore year. Since some programs are highly specialized and require careful academic planning, you may wish to discuss declaring your major with an admissions counselor. Transfer students who have earned more than 45 credit hours must make application to a specific academic program. You will be notified by mail of an official decision after the Office of Admissions receives all required credentials. All acceptances are conditional upon receipt of a high school or college transcript indicating successful completion of courses in progress, submission of your medical history, and evidence of appropriate immunization. You must submit an advance deposit to reserve your place in the entering class.

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.

Early Decision: The Early Decision option provides you with an opportunity to identify Fredonia as your college of choice. This admissions program permits you to tell us of your interest in pursuing your studies here. Colleges participating in an early decision program anticipate that those candidates who are accepted through Early Decision will submit an admission deposit and withdraw all other college applications. Early Decision allows you to finalize your college plans early in your senior year of high school. To be eligible we must receive your application and all supporting credentials by November 15. On December 1 we notify all early decision applicants and begin to review all other requests for admission.

Freshman Admission: The Admissions Committee considers a variety of criteria when reviewing applications, evaluating quality of academic preparation including depth and breadth of course work, academic achievement, and the results of your SAT or ACT. Our college is committed to a liberal education for all undergraduates, and preference is given to those applicants who present strong academic programs in English, social studies, mathematics, science and foreign languages. We ask that you send us the results of your SAT or ACT for review. Admission to college is a matter of meeting the competition among applicants, and a comprehensive, challenging college preparatory program combined with good achievement will help ensure that your application is competitive.

The Admissions Committee also reviews supporting credentials including special talents, activities, individual accomplishments, and recommendations, which you may choose to submit. Appropriate faculty evaluate the results of a required audition if you seek admission into our music or B.F.A. theatre programs. As an Art applicant and in some options in Media Arts you must present a portfolio (or slides) for review.

Fredonia in 4

Graduation rates of our entering freshmen are among the highest in the nation. To ensure that our success continues, we have implemented Fredonia in 4, a program for first time freshmen which stipulates that the college pledges to adhere to a commonly understood agreement to provide the necessary courses and academic advising which will guarantee that you finish your degree program in four years.

Transfer Admission: SUNY Fredonia considers all requests for admission from transfer students in good standing at both two- and four-year colleges and universities, including SUNY and non-SUNY institutions. The admission review process focuses upon an evaluation of academic achievement, program of study, and the major program of study which you request. There are special audition requirements for music and B.F.A. theatre programs, as well as portfolio requirements for Art and certain Media Arts specializations. Admission to our certification programs in teacher education requires at least a 2.50 grade point average to be eligible for consideration.

We require an official transcript from each college you previously attended, and a high school transcript and SAT or ACT results if you have completed less than 30 credit hours when you apply.

When evaluating transfer credit, the Office of Admissions, in accordance with academic policy, determines which courses will transfer and those which will com-

plete general education requirements. We have established certain guarantees if you will receive an Associate in Arts (A.A.) or Associate in Science (A.S.) degree from a SUNY two-year college. We include an estimate of transfer credit hours with your acceptance letter. You may transfer up to 75 hours of college credit from your previous college(s). Your academic department chairperson or designee determines the distribution of specific courses in fulfillment of departmental requirements in your chosen field of study and provides information about which courses you will need to complete degree requirements in a timely manner. Our college consistently attains one of the highest graduation rates of transfer students in the SUNY system. An official evaluation of transfer credit occurs when we receive your final transcript showing all course work completed. It is most helpful if this information arrives prior to our summer orientation and advising program for transfer students in June.

Fredonia awards transfer credit for academic courses successfully completed at a fully accredited college or university, reserving the right to determine what constitutes academic credit. Your grade point average does not transfer; only credit hours are awarded. You must fulfill all college and departmental requirements for the baccalaureate degree, including a residency requirement of 45 semester hours of credit at Fredonia. As a prospective transfer student we encourage you to visit the college to discuss transfer credit and graduation requirements with a departmental academic advisor or our admissions transfer counselor.

SUNY Two-Year Transfer Applicants

SUNY Fredonia is committed to providing an opportunity for further study to SUNY two-year college graduates. We have established articulation agreements and joint admissions programs with many two-year schools. For further information, contact our Office of Admissions.

Associate in Arts and Associate in Science degree candidates who complete degree requirements prior to transferring will enter Fredonia with a minimum of 60 semester hours of transfer credit and junior standing.

We assume also that with the A.A. or A.S. degree you have completed all our liberal arts core requirements in parts I and II of our General College Program (the GCP). All transfer students must complete two Part III GCP courses at Fredonia. Consistent with our policy for reviewing any request for transfer admission, approval for enrolling in a specific academic program is dependent upon an evaluation of your academic performance and program of study. If you are not a candidate for an A.A. or A.S. degree, we consider your request for admission

by reviewing academic achievement, your program of study, and the number of hours you have earned.

Special Admissions Programs

Full Opportunity Program: Through the Full Opportunity Program an effort is made to identify and recruit students from underrepresented groups, students with special talents in the fine and performing arts and athletics, those who have participated extensively in school and community affairs, or have strong personal recommendations. The Full Opportunity Program provides you with a chance to enhance your academic credentials with a description of your individual talents and accomplishments.

Acceptance into the program provides you with access to support services designed to help you make a successful transition from high school to college, and to help guide you toward successful completion of your academic and career goals.

If you wish to identify yourself as a special talent applicant you should include a personal statement and resume as well as three letters of recommendation to supplement Part II of our application.

Students accepted through the Full Opportunity Program are guided through their first year at Fredonia, beginning with academic advising which takes place during Summer Orientation. In cooperation with the student's academic advisor, an advisor in our Learning Center has the responsibility for designing programming to meet the academic needs of the students in the program. Some of the services offered include: mentoring programs, free assigned tutoring, workshops by faculty members, e-mail workshops, and assistance with course selection.

Educational Development Program: Applicants who demonstrate 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 (called the Educational Development Program at Fredonia). To be eligible for consideration you must be a New York State resident and have earned a high school diploma or its equivalent.

To be considered "financially eligible," you must meet the economic criteria established by the New York State Education Department. Check the current *SUNY Application Guidebook* for the updated economic criteria listed under Educational Opportunity Programs in the booklet.

You are required to submit appropriate financial aid applications and verification of family income to supplement your request for admission as an EDP student. We may request additional information from you, as

needed. A SUNY EOP Information form mailed to you from APC must be filed as part of the application process.

You do not need to prove that you meet the economic guidelines if you can show that:

- a. Your family receives payment through the New York State County Department of Social Services;
- b. You live with foster parents who do not provide support for college, and your natural parents provide no financial support to you, or;
- c. You are a ward of the state or county.

To be considered "educationally eligible" means you do not meet the usual Fredonia admissions standards. However, you must demonstrate academic potential, proper motivation, and a strong desire for a college education. You apply for our EDP program by checking "yes" when answering the EOP question on the SUNY application. Transfer applicants receive consideration if they have previously been enrolled in a similar EOP/HEOP/College Discovery/SEEK program.

If you attended a college that does not have a EOP-type program, then we attempt to determine whether you would have been deemed eligible for EOP at the time of your acceptance to the other college.

For more information about the Educational Development Program support services, please refer to page 150 of this catalog.

Joint Admission: SUNY Fredonia has implemented joint admission agreements with several two-year colleges, both public and private. Joint admission program students request admission to Fredonia by applying to the admissions office at the two-year college and completing requirements for the associate degree.

You must meet all requirements as stated in our college catalog and the joint admission agreements in order to continue with your studies at Fredonia. You may obtain information from our transfer counselor in the Office of Admissions at Fredonia or the two-year college.

Time-Shortened Degree Program. Students enrolling at Fredonia 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 without a high school diploma, may apply for early admission. We expect applicants to have completed four units of study in college preparatory mathematics and sciences and a sequence in foreign languages with above-average

academic achievement and SAT or ACT scores. Your high school counselor must submit a recommendation in support of your request for early admission. Since Fredonia does not award you a high school diploma you must make arrangements to receive high school credit for your college course work in lieu of the courses you would have taken in your senior year.

2. *3-1-3 Program.* Local area high school juniors interested in beginning college during 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 SUNY Fredonia, and three years at the college. As a 3-1-3 applicant you must present above-average test results on the PSAT, SAT or ACT, and a B high school average.

A counselor recommendation is required. Submit the SUNY application available in your guidance office and select curriculum code 0199. A conference with you and your high school counselor will develop your joint college and high school class schedule. For more information, see page 147.

Advanced Standing Credit

Credit by Examination. The college welcomes the opportunity to allow you to complete graduation requirements at an accelerated rate by submitting the results of proficiency examinations for credit evaluation. You may earn up to 30 semester hours of credit by examination through the following programs:

Advanced Placement. Submit the results of your Advanced Placement Examinations to the Office of Admissions. If you achieve a score of three, four, or five you will receive placement and/or credit. These examinations fulfill requirements in the General College Program (liberal arts core courses).

College-Level Examination Program. CLEP General Examinations substitute for the General College Program course requirements. Subject Examinations substitute for specific course requirements (which may fulfill core GCP course requirements as well). To determine which examinations are acceptable for credit, check with the Office of Admissions before scheduling one of the tests. We accept most, but not all, examinations for credit toward graduation. You must score at the fiftieth percentile in order to receive credit.

College Course Work. A number of freshman applicants seek transfer credit for college courses successfully

completed while enrolled in high school. Submit an official transcript from the college awarding credit indicating that you have successfully completed course work. While credit hours may be awarded toward graduation, your grades do not transfer to Fredonia as part of your Fredonia grade point average.

Military Service Experience. Credit for military service experience and education is evaluated on an individual basis according to the guidelines established by the American Council on Education. Forward official transcripts and documents to the Office of Admissions for evaluation.

International Students

SUNY Fredonia welcomes applications for admission from international students. We provide assistance in matters of orientation, housing, personal concerns, and immigration. American students, the faculty, and the Fredonia village community take special interest in students from other countries, whose contribution to campus life is recognized and valued.

As an international student you must initiate your application well in advance of your intended first semester at Fredonia. Request the special international student application by writing to the Director of Admissions. If your native language is not English you must submit the results of the Test of English as a Foreign Language (TOEFL) administered by the Educational Testing Service, Princeton, NJ, 08540. All your academic records should be accompanied by certified translations if they are presented in a language other than English. Include brief course descriptions of subjects successfully completed (and an explanation of the grading system) with your credentials. We require certified verification of sufficient financial resources as part of the application process.

Readmission

Undergraduate degree students who have withdrawn from the college and wish to return may obtain an application for readmission from the Office of Admissions.

Do not use the SUNY application for admission. Requests for readmission are reviewed by a committee consisting of the academic dean, appropriate department chairperson, the Office of the Vice President for Student Affairs, and the Director of Admissions. Please refer to page 194 for more detailed information regarding readmission policies.

Deferred Admission

Students accepted for admission to Fredonia may defer enrollment for up to one year.

We offer deferred admission as an option for students who are financially unable to pursue college studies immediately after high school or who decide to delay enrollment in college for personal reasons. The plan is available to both freshmen and transfer students and applies to all college academic programs. If you would like to investigate the deferred admission program, forward a written request to the Office of Admissions.

EXPENSES

This section presents an estimate of the cost of attending SUNY 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	\$3,400
Out-of-State	\$8,300
College Fee	\$25
Student Services & Programs Charge	\$700

Additional Charges for Residents in College Residence Halls

Room Rent	\$2,800-4,250
Board (Food Service)	\$1,750-\$2,190

Estimated Additional Costs

Books and Supplies	\$620
Personal	\$755
Transportation	\$525

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

Part-Time Study

*In-State Tuition	\$137 per credit hr.
*Out-of-State Tuition	\$346 per credit hr.
College Fee	\$.85 per credit hr.
Student Services & Programs Charge	\$29.25 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. See the Student Accounts web page for the current college charges at [www.fredonia.edu/admin/student accounts/](http://www.fredonia.edu/admin/student%20accounts/)

College Fee

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

Student Services and Program Charge

The Student Services and Program Charge combines all college fees for student services, programs and activities in one composite amount for all students. As a result, there are no general college fees; there are no additional mandatory fees once a student arrives on campus (although some departments may assess individual departmental fees). The Student Services and Program Charge includes support for the following programs and activities:

Advanced Technologies for Classroom Use
 AIGA/Art Forum
 Alumni Affairs
 Bicycle Use on Fredonia Campus
 Birth Control Information Center
 Blue Devil Fitness Center
 Campus Community Bus
 Campus Internet Access
 Campus Microcomputer Labs
 Campus Fine Arts
 Central Box Office
 College Events Commission
 College Special Events
 Counseling Center
 Coupons for Discounts at Area Merchants
 Cross Country Skis at College Lodge
 Fredonia College Jazz Workshop
 Intercollegiate Athletic Sports Program
 Intramural and Recreational Program
 Legal Services
 Homecoming Weekend Events
 Microcomputer Support
 On-Campus Student Employment
 On-site Medical Care
 Health Education Programs
 Medical Laboratory Work
 Over-the-Counter Medications
 Prescription Medications
 Wellness Checkup
 Orientation Program
 Parents Weekend Events
 Parking Services
 Parking Shuttle Service
 Student Government
 Student Organizations and Clubs
 Student Scholarships
The Leader (College Newspaper)
 Upper Class Buddy Program
 Van Service to Hospital/Clinic
 Fredonia Radio Systems
 WNYF-TV

Student Group Health Insurance

All students 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 \$1,525 per semester. If a single room is requested and if one is available, the cost is \$2,125 per semester. Apartments, where available, are \$1,650 per

semester. Inquiries as to charges and accommodations should be addressed to the Office of Residence Life, Gregory Hall. (Figures reflect 1998-99 rates.)

Students who have paid the \$50 Advance Room Deposit will have this amount deducted 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 on-campus residents to select from a variety of full board plans if they are residing in non-apartment style residence halls. Seniors, and residents of Disney and Eisenhower apartments and selected dorms are not required to maintain a meal plan, however, they may choose any plan.

FSA offers both declining balance (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. Costs begin at \$875 for resident students required to participate in a meal plan. Special meal plans are available for commuter students.

Unused points from the fall semester may be rolled over to the spring semester adhering to the college policy. However, students must select a meal plan for the spring semester in order to receive the rollover. No refund of unused points will be given if the student does not return for the spring semester. Unused points do not roll over to the following fall semester.

Specific information concerning pricing and descriptions of each plan may be obtained by contacting the FSA office in Gregory Hall or calling (716) 673-3417, Ext. 229, or see the FSA web page at www.fredonia.edu/fsa.

Miscellaneous Fees, Fines or Deposits

All of the major college expenses have been outlined. However, the State University authorizes charges for such items as returned checks, late registration, re-billing payment, 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 infirmary 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* is not refundable after registration.

Refunds for the *Student Services & Programs Charge* 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 except in cases of withdrawal beyond the control of the student and with approval of the College President or his/her designee. Rooms are contracted for the entire academic year and cannot be canceled during this period as long as the student is registered. There is a fee of \$200 for approved termination of the housing license.

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

Refund/Repayment of Financial Aid Due to Discontinuance of Study

This policy is utilized whenever a registered student who is a recipient of Title IV funds discontinues study during a given semester.

The purpose of the refund/repayment calculation is to insure that financial aid monies for which the student is not entitled because he/she has dropped out of school are returned to the federal government.

There are two basic components involved in the discontinuance of study during a semester:

1. *Refund:* The amount to be returned to Federal Title IV Financial Aid Programs and to the student from funds applied against charges made by the institution (tuition and fees, room and board, etc.)

2. *Repayment:* The amount students must repay to Federal Title IV Financial Aid Programs resulting from excess disbursement of funds to students for non-institutional educational costs (off-campus rent, board, transportation, personal expenses, etc.).

The university is mandated to calculate the amount of both the refund and the repayment of financial aid funds within 30 days of when study is discontinued. The amounts are calculated as indicated below.

NOTE: If a student withdraws *before* attending any classes for a semester, all aid for that semester must be canceled and returned to the various financial aid programs. No consideration will be given for off-campus room expenses or books.

Calculation of Refund:

The Higher Education Amendments of 1992 established a "fair and equitable refund policy" as the one that provides for a refund of at least the largest amount paid back to the aid program when comparing the following refund policies.

1. SUNY Fredonia Refund Policy

A. *Tuition:* Students who receive permission to cancel their registration (withdraw) for fall or spring semesters may be eligible for a refund of tuition and fees in accordance with the following schedule:

- 1st week 100%
- 2nd week 70%
- 3rd week 50%
- 4th week 30%

B. *Room and Food Service*: Students may be eligible for a refund of room rental and food service in accordance with the State University of New York College at Fredonia Policy

2. Pro Rata Refund Policy

Students attending the State University of New York College at Fredonia for the first time (first semester freshmen or transfers) who receive Title IV aid and officially withdraw from the institution will have a refund calculated for tuition, fees, room rental, and food services in accordance with the following:

1st week	100%
2nd week	90%
3rd week	80%
4th week	80%
5th week	70%
6th week	60%
7th week	60%
8th week	50%
9th week	40%
10th week	0%

3. Federal Refund Policy

Students attending the State University of New York College at Fredonia who receive Title IV aid and withdraw from the institution will have a refund calculated for fees, room rental, and food services in accordance with the following (tuition will be calculated in accordance with the SUNY Fredonia Refund Policy):

1st week	90%
2nd week	90%
3rd week	50%
4th week	50%
5th week	25%
6th week	25%
7th week	25%
8th week	25%
9th week	0%

Distribution of Refund Among Financial Aid Programs

The amount of the calculated refund will be distributed in the order of the individual aid programs as shown below:

Unsubsidized Federal Stafford Loan
 Subsidized Federal Stafford Loan
 Federal Plus Loan
 Federal Perkins Loan
 Federal PELL Grant
 SEOG

Other Title IV Aid Programs

Other federal, state, private or institutional aid

Calculation of Repayment:

1. The portion of the semester in which the student was enrolled and the reasonable non-institutional expenses for that period must be determined. Reasonable non-institutional expenses are calculated as follows:

Books and Supplies: Full semester amount if student attended any classes, as these expenses are usually incurred in full at the very beginning of the semester.

Room, Board, Personal Expenses and Transportation: Prorated by the number of weeks attended. Again proration is similar to tuition (e.g. first week, 0 % assessed).

2. The source of cash disbursed to the student for non-institutional expenses excluding college work study program, Stafford Loans, or Parents Loans is used to determine refund.

3. Reasonable expenses incurred (Item #1) are subtracted from total cash disbursed to student for non-institutional expenses excluding work programs, Stafford Loans, and PLUS (Item #2). If this amount is positive, then this is the amount of the overpayment, a portion of which must be repaid by the student to the Federal Aid Program.

Distribution of Repayment Among Financial Aid Programs

The amount of the calculated repayment will be distributed in the order of the individual aid programs, as shown below:

Federal Perkins Loan
 PELL Grant
 SEOG Other Title IV Aid Programs
 Other Federal, State, Private or Institutional Aid

Students will be notified via mail regarding the outcome of the refund/overpayment calculation.

Discontinuance of study during a semester will either require a refund of aid to specific aid programs based on the policy outlined in this section or (if no refund required from current semester) will require loss of state aid, federal aid, or both due to Satisfactory Academic Progress requirements for the very next semester as outlined in the Undergraduate Catalog, the Financial Aid Office *Prospectus*, and the Financial Aid Office Satisfactory Academic Progress brochure.

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. A student must send in the required payment prior to the billing deadline date. Failure to make payment will result in a re-billing charge. It is the responsibility of the student to notify the Student Affairs office if they are not returning so that the charges may be removed and courses may be dropped.

Students are billed for each semester individually. The college bill lists the following mandatory charges: Tuition, College Fee, and Student Services and Programs Charge. Charges for Residence Hall Room Rental 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)
- Parent Loans
- Alternative Student Loans

College Work Study Awards and personal loans 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 by the deadline date. Cash, personal checks, money orders, VISA, MasterCard and Discover are all acceptable forms of payments. Registrations lacking the required payment cannot be processed.

Students attending In-Person Registration will have a bill mailed to their home and local address at or near the end of the first week of classes. The due date for payment will be approximately two weeks later. A Re-billing charge of \$30 will be added to an account outstanding as of the close of business on the due date.

Financial aid is not 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 third and fourth 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

Due to changes in a student's registration status, residence hall occupancy, food service selection or a reduction in financial aid, the Office of Student Accounts will bill students monthly throughout the semester. Students who fail to make timely payments will be assessed a \$30 Re-billing 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 his/her diploma at graduation, be permitted to register for additional semesters at SUNY Fredonia or receive a copy of his/her college transcript.

A student who fails to make payment to the college at the end of the semester will be referred for further collection to the New York State Attorney General's Office in Albany or to a collection agency contracted by the college. Accounts transferred to these agencies will be subject to additional charges for interest and collection costs of up to 22 percent.

SCHOLARSHIP OPPORTUNITIES

Newly Accepted Students

SUNY Fredonia awards merit based scholarships to academically qualified students who have been accepted to the college. This year, the college is initiating a new process which does not require an application. The College Scholarship Committee will review the transcripts of academically qualified students and the Supplemental Data Form which is Part II of the admissions application process.

Scholarship recipients will be notified of an award on April 1, with a response date of May 1.

Scholarships awarded and minimum criteria for consideration:

Foundation Freshman Award:

- \$3,000 one-time award
- 91 high school average (unweighted)
- SAT 1250 or ACT 28

Fredonia Achievement Award:

- \$1,000 one-time award
- 87 high school average (unweighted)
- SAT 1100 or ACT 25
- 3.0 college GPA for transfers
- MUST live in college residence hall
- available to freshman and transfer students
- involvement in varied extracurricular activities

Fredonia Award for Excellence:

- \$2,500 *renewable* award
- graduate first or second in high school class
- 92 high school average (unweighted)
- SAT 1250 or ACT 28
- MUST live in college residence hall
- must achieve minimum 3.25 GPA to retain award

Scholar Incentive Award for Out-of-State Students:

- \$2,500 *renewable* award
- 90 high school average (unweighted)
- SAT 1250 or ACT 28
- MUST live in college residence hall
- must achieve minimum 3.25 GPA to retain award
- Non New York State Resident

New York State Empire Minority Honors Award:

- \$1,000 *renewable* award
- offered to students from an under-represented group
- minimum 87 high school average (unweighted) to be considered

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 asso-

ciate 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 \$1,500 and are based on academic achievement.

Alumni Scholarships

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

For information on scholarships open to all majors, contact the College Scholarship Committee, Office of Student Affairs, sixth floor Maytum Hall, (716) 673-3271.

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.

Art

Alford Bjurlin Scholarship
George Booth Visual Arts Scholarship
Marano/Gnirke Scholarship
Robert W. Marvel Award

Athletics

Ken Depledge Basketball Award
Sandra Haight Memorial Scholarship
Doris Newman Memorial Scholarship

Biology

Biology Department Scholarship
Bruce and Nancy Garlapow Memorial
Willard Stanley Memorial Scholarship
1929 Graduate's Bioethics Award
Alice Sam Biology Scholarship

Business Administration

Donald C. Brandt Memorial Scholarship
M.R. Poumit Achievement Award

Chemistry

David Dingley Award
Roy Keller Award
Gilbert and Ruth Moos Outstanding Senior Award

Communication

Louis C. and S. David 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's Fund

Economics

Hart-Gorman Economics Award
 Arthur R. Maytum Scholarship

Education

Fanny Bartlett Award
 Helen Buderkin Award
 Anthony M. Deiulio Memorial Scholarship
 Helen Kelly Lillie Award
 Floyd and Mabel Smith Melvin Scholarship
 Carol Scrace Pierce Award
 Louis E. Rath's Scholarships
 Byron and Carrie Record Award
 Gustave and Geraldine Werner Scholarship
 Wolfenden Scholarship
 Marjorie E. Woods Scholarship

English

1929 Graduate's Fund - Nineteenth Century
 Literature Award
 John and Eleanor Courts Scholarship
 Crescence Ehmke Graham Scholarship
 Freshman, Advanced and Graduate Writing
 Awards

Foreign Language

Robert Rie Foreign Language Scholarship

Geosciences

Walther M. Barnard Geosciences Scholarship
 Geosciences Textbook Scholarships provided by:
 Fahnestock Memorial Fund
 Geosciences Alumni Fund
 Roy A. MacDiarmid Award
 Susan Mara Scholarship
 Mark D. and April Hoefner Orgren Scholarship
 Paul D. Willette Scholarship

History

William and Helen Chazanof Award
 MacPhee Scholarship

Mathematics

Earl G. Mathewson Scholarship
 Frank R. Olson Mathematics Scholarship

Music

Charles D. Arnold Scholarship
 Lucia Gracia Bolton Scholarship
 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
 Frazier Percussion Scholarship
 Herbert W. Harp Memorial Scholarship
 Hillman Scholarships
 Kilduff Voice Scholarship
 Harry King Memorial Award
 Brigitte Larson 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
 Poummit Concert Master Award
 Lawrence Schaufler Scholarship
 Robert K. Seymour Scholarship
 Isaac Stern String Scholarship
 Anthony S. Strychalski Memorial Scholarship
 A.L. Van Keuren Memorial Award

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
 John J. Connelly Physics Scholarship
 Physics Department Scholarship Award

Political Science

Erna G. and J. Murdoch Dawley Award
 John R. Quatroche Jr. Political Science
 Scholarship
 J.R. Soukup Pi Sigma Alpha Awards

Psychology

Darlene Prokopowicz Memorial Scholarship
Psychology Merit Award

Science

Dr. Lawrence A. Patrie Science Scholarship

Sociology

Outstanding Senior Award

Speech Pathology and Audiology

Esau A. and Susan S. Sam Scholarship
Schaffer Family Scholarship
Rebecca Snyder Memorial Scholarship
Lt. Gen. Louis E. Woods Scholarship
Henry C. Youngerman Memorial Award

Theatre Arts

1929 Graduate Classical Ballet Award
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
New York State Federation of Home Bureaus/
Sally Bulger Scholarship
President's Award
Jean Schoener Meritorious Service Award
Bea Ullman Scholarship

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.

Alumax Scholarship
Alumni Association Scholarships
Children of Alumni Scholarship
Transfer Award
Undergraduate Alumni 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
Carnahan-Jackson Scholarship
Class of 1939 (preference given to children of alumni)
Class of 1942 and 1943 Scholarship (preference given to children of alumni)
Ruth Tice Callahan Award (outstanding freshmen)

Laura B. Cole Scholarship
Evelyn Lawson Coleman President's Scholarship
Robert E. Coon Recognition Award (Junior)
Council for Women's Concerns/
Marion Sonnenfeld Scholarship
(preference given to women)
Deming Family International Study Scholarship
Dunkirk/Fredonia Lions Club Scholarship
(Dunkirk/Fredonia high school senior)
Kelly Early Scholarship
Empire State Minority Honor Scholarship
Excelco/Newbrook Scholarship
Faculty/Staff Scholarship
Faculty Student Association Awards
Foundation Scholarships
Malcolm J. French Memorial Award
Maureen Fries Scholarship
Joseph T. Gallagher Scholarship (preference to minority students pursuing teaching careers)
Zola Graf Scholarship (Northern Chautauqua County residents)
Gregory Fund
Robert and Elinor Grennell Scholarship
Lena M. Harmon Award (Sinclairville, N.Y., residents)
Michael Brett Harris Scholarship
Velyne and Lynn A. Hawkins Scholarship
(Forestville High School students residing in Sheridan)
Fanny A. Hayward Award
S.C.W. Hom Parent Scholarship
Joseph Ianello Scholarship
International Student Assistance Fund
Mamie and Ira Jordan Minority Scholarship
George and Elane King Award
Raymond Lai Scholarship (preference given to student from Hong Kong)
Lake Shore Savings Scholarship
Charlotte Putnam Landers Award
Lanford Presidential Prize
Horace O. Lanza Scholarship
Learning Center Scholarship
Michael Lemieux Balanced Man Scholarship
Lundquist International Fellowship
Dorothy French Manley 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)
Barbara Rose Memorial Scholarship
Fredonia Rotary Scholarship (Fredonia High School seniors)
Betty Norr Saveth Scholarship

Kurt and Sibylla Sonnenfeld Scholarship
 SOROS Fund (Albanian students)
 George Michael Stauffer Fund
 Steele Family Scholarships
 Thomas Stocky Memorial
 John R. Symans Memorial Award
 Dorothy Van Valkenburg Scholarship
 Wal-Mart Scholarship (preference given to
 Northern Chautauqua County students)
 Wilma Watson Memorial Scholarship
 (Cattaraugus County residents)
 Welch's/National Scholarship
 Louise E. Wilder Scholarship
 Yvonne Wilensky Scholarship
 Winch Scholarship (preference given to
 study abroad)
 Dr. Nelson C. Wood Scholarship

FINANCIAL AID

The primary objective of college financial aid is to assist degree students with college expenses.

Students are encouraged to check the World Wide Web site (<http://www.fredonia.edu/finaid>) for current information.

How Do I Apply? What Form Do I Use?

If you applied for federal student aid for the current school year, you probably will be able to file a Renewal Free Application for Federal Student Aid (FAFSA). This preprinted Renewal FAFSA will be mailed directly to your home address by the Department of Education.

If you are a new financial aid applicant or did not apply for federal student aid during the current school year, you can apply for federal aid by completing and submitting the Free Application for Federal Student Aid (FAFSA) using SUNY Fredonia's school code of 002844.

You may submit a FAFSA

- through the Internet by using FAFSA on the Web
- by using FAFSA Express software
- by mailing a paper FAFSA

FAFSA on the Web is a free U.S. Department of Education web site where you can complete your FAFSA online and submit it via the Internet using a personal computer (PC) that is equipped with certain versions of Netscape. The address is www.fafsa.ed.gov

FAFSA Express is a free software program that allows you to apply for federal student aid from your home computer or from a computer at a central location like a high school or public library. FAFSA Express can be used only on a personal computer equipped with the

Windows operating system and a modem. The address is www.ed.gov/offices/OPE/express.html

To apply for the New York State Tuition Assistance Program (TAP) grant, you must complete the NYSHESC generated preprinted Express TAP Application (ETA) using Code 0915 for state assistance. Mid-year Transfer students must request a Financial Aid Transcript from any school previously attended.

Where Do I Get These Applications?

The paper Free Application for Federal Student Aid application (FAFSA) is available from any high school guidance office or any financial aid office.

The Renewal Free Application for Federal Student Aid application is mailed directly to prior aid recipients by the Department of Education.

The preprinted Express TAP application (ETA) is mailed directly to students by the New York State Higher Education Services Corporation (NYSHESC).

It is the student's responsibility to submit the FAFSA and the Express TAP Application (ETA) 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. For additional information concerning the application process, check our web site at www.fredonia.edu/finaid/

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 institutional 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 with the intention of making aid actual for credit on the college bill by mid-July.

Students must submit paperwork on a timely (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 governmental sources.
2. Financial eligibility as determined by the FAFSA processing.
3. Date of receipt of FAFSA results from the Federal Central Processor.

Verification

Many financial aid applicants will be required to verify the information that is reported on the FAFSA/Renewal FAFSA. Financial data such as income, taxes paid, and non-financial data such as family size and dependency status will be verified. For this reason, it is extremely important that the figures you report when completing the FAFSA/Renewal FAFSA are accurate. If there are any discrepancies in the data that was submitted on the FAFSA/Renewal FAFSA, the aid originally awarded will be revised (either increased or decreased). Save copies of student's and parent's signed tax returns, since these documents may be requested. A verification worksheet will also be sent to you for completion. You should be aware that by not submitting the required tax forms (W-2 Forms are not acceptable) and verification worksheet as requested, all aid is placed on hold, including loans.

College Costs

	N.Y.S. Resident	Out-of-State Resident
Tuition and Fees	\$4,125	\$9,025
Room and Food	<u>\$5,200</u>	<u>\$5,200</u>
	\$9,325	\$14,225

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 but were accurate at the time of printing.

Satisfactory Academic Progress and Receipt of Undergraduate Financial Aid

Requirements

State and federal regulations require that all financial aid recipients maintain program pursuit and make satisfactory progress toward completion of degree program requirements (referred to as Satisfactory Academic Progress). The Financial Aid Office at SUNY Fredonia evaluates student aid recipient progress according to *State requirements* for TAP and APTS at the completion of each semester and according to *Federal requirements* for SEOG, PELL, Work Study, Perkins, Stafford and Parent Loans at the completion of the academic year. All three criteria in the charts below must be met in order to retain financial aid for the following semester. If a student withdraws from a course, it may effect his/her aid for the next semester.

ft = full-time pt = part-time

* Only students in approved five year programs (EOP and Medical Technology) are eligible for 10 semesters of undergraduate TAP. All other students are limited to

SATISFACTORY ACADEMIC PROGRESS CHART FOR STATE AID (TAP, APTS)

Before receiving this TAP payment you must meet all 3 criteria below	1	2	3	4	5	6	7	8	*	*
Receive passing/failing grade for this percent of credit hours attempted during last semester	0	50% ft=6 pt=3	50% ft=6 pt=3	75% ft=9 pt=6	75% ft=9 pt=6	100% ft=12 pt=6	100% ft=12 pt=6	100% ft=12 pt=6	100% ft=12 pt=6	100% ft=12 pt=6
Must have accrued at least this many total credits	0	3	9	18	30	45	60	75	90	105
Maintain at least this Grade Point Average	0	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00

eight semesters of undergraduate TAP.

Examples of requirements at different TAP payment levels follow:

1. A student who has received seven payments of TAP must complete at least 12 credit hours during the fall, maintain at least a 2.00 cumulative GPA, and have accrued at least 75 total credit hours to receive his/her eighth TAP payment in the spring
2. A student who has received four TAP payments must complete at least 9 credit hours during the fall, maintain at least a 2.00 cumulative GPA and have accrued at least 30 total credit hours to receive his/her fifth TAP payment in the spring.
3. A student who has received three TAP payments must complete at least 9 credit hours during the fall, maintain at least a 1.00 cumulative GPA, and accrue at least 18 total credit hours to receive his/her fourth TAP payment in the spring.

Receipt of federal aid is limited to 12 semesters (for students enrolled full-time), according to Federal Regulation 34CFR PART 668.16.

SATISFACTORY ACADEMIC PROGRESS CHART FOR FEDERAL AID (PELL, Perkins, SEOG, Work Study, Stafford, Parent Loan)

Before receiving Federal aid at this grade level, you must meet all 3 criteria below	Grade Level 1	*Grade Level 2	Grade Level 3	Grade Level 4	Grade Level 5	Grade Level 6
Receive passing/failing grades for this percent of credit hours attempted during last two semesters	0 ft=0 pt=0	50% ft=12 pt=6	75% ft=18 pt=9	100% ft=24 pt=12	100% ft=24 pt=12	
Must have accrued this many total credits	0	12	30	54	78	102
Maintain at least this cumulative Grade Point Average	0	1.00	1.60	1.80	1.90	2.00

ft = full-time pt = part-time

* Example: A first semester sophomore this fall, must have completed a total of 12 credit hours during his/her first two semesters and have a total of at least 12 hours and have at least a 1.00 cumulative GPA to receive federal aid this semester. The student must also complete a total of 18 credit hours and have at least a 1.60 cumulative GPA at the end of the spring semester to continue receiving federal aid for the next fall semester.

Students should be aware that course repeats do *not* count as a completion in determining Satisfactory Academic Progress.

Example: Two years ago a student received a failing grade for a course and during the current semester repeated it as a junior. To meet progress standards, the student must complete 12 new credit hours during the current semester in addition to the repeated course credit hours.

Part-time students enrolled beyond 12 semesters (up to 24 semesters maximum) must continue to complete 100 percent of hours attempted *and* maintain a 2.0 GPA.

Notification Procedure

The financial aid office will notify the student between two and four weeks after the conclusion of the fall semester if Satisfactory Academic Progress Standards were not met while the student received State aid and between two to four weeks after the spring semester if Satisfactory Academic Progress Standards were not met while the student received federal and/or state aid. The letter will inform the student of loss of aid for the semester *immediately following* the one in which program pursuit and progress standards were not met and will also apprise the student of the appeal procedure to follow if the student feels financial aid should be reinstated.

Appeal Procedure

A request to reinstate federal or state aid for the next semester at Fredonia will be evaluated and granted only if exceptional circumstances (i.e. family illness or death, personal illness, personal emotional disturbances, changes in education objective) can be documented by the student. Waivers of the criteria and reinstatement of aid are *not* automatic. They are approved *only* if in the best interest of the student and *only* if unusual circumstances prevented the student from meeting the expected criteria. A waiver to reinstate state aid is available *only once* during undergraduate study (with the exception of the "C" average waiver). The waiver request form is mailed with the notification of aid loss to the student by the Financial Aid Office. A student choosing to use the Appeal Process to reinstate aid the next semester at Fredonia should complete and submit the waiver form (with appropriate documentation) to the Office of Student Affairs for evaluation.

TYPES OF AID

Scholarships

For information on Scholarship Opportunities available to students, refer to the section preceding Financial Aid on page 174.

Federal PELL Grant Program

A student may apply for a Federal PELL Grant if enrolled or accepted for enrollment as a degree student 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 page 180).

The maximum grant which may be awarded is currently \$3,125. Grant amounts are determined by the Federal Legislative process each year.

Federal Work-Study Programs

The Federal College Work-Study Program (CWSP) is a federally funded source of financial assistance used to offset education costs. Eligible colleges administer the program, which provides jobs for eligible students. A full-time student can expect to work up to eight hours a week (on or off campus), at a salary based on local market conditions and current minimum wage standards. At Fredonia, work skills are determined based on a survey of eligible students, and job assignments are made by the Financial Aid Office. Work-Study earnings are paid bi-weekly directly to the student. Students must meet with their assigned supervisors during the first two days of the semester or the award is canceled and offered to another student.

The "America Reads Program" was implemented at Fredonia during the 1997-98 academic year (the first year of the program's national implementation). This program allows students who meet certain work-study eligibility and tutor/training criteria to be assigned as tutors to area public school districts as their work-study employment. During the 1997-98 and 1998-99 academic year, 25 Fredonia students worked as tutors in five area school districts. Plans to increase the number of tutors are currently underway.

Federal Perkins Loan

This loan program is available to part-time (6 to 11 credit hours) or full-time (12 or more credit hours) undergraduate degree students. On July 23, 1992, the Reauthorization of the Higher Education Act was signed into law, putting into effect the following information:

1. Interest Rate

All loans made after 10/1/80 continue to be assessed at a 5 percent interest rate.

2. Loan Limits

Annual loan limits are established at \$4,000 for undergraduates and \$6,000 for graduate students. In actual practice, the amount varies according to need, dependency status, date of receipt of a complete FAFSA, and generally does not exceed \$1,000 per year. The total amount you can borrow as an undergraduate is \$15,000.

3. 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. You may be allowed up to 10 years to repay.

4. 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, which does not have to be repaid, ranges from \$200 to \$1,000 for an academic year. It is awarded on a yearly basis according to a calculated "Expected Family Contribution."

Federal Subsidized Stafford Loan Program

Applicants must complete the Free Application for Federal Student Aid (FAFSA) to be eligible for all Stafford loans.

The interest for the Subsidized Stafford loan is paid by the federal government during in-school, grace and deferment periods and is based on need. A student must be in attendance or accepted as at least a half-time degree student (6 credit hours per semester) and must either be a U.S. citizen or permanent resident of the U.S. Upon receipt of FAFSA data from the Federal Central Processor, the Fredonia Financial Aid Office determines loan eligibility and has a preprinted loan application mailed directly to the student for completion. Repayment on the Subsidized Stafford loan begins six months after enrollment on at least a half-time basis ends.

Federal Unsubsidized Stafford Loan Program

The difference between the Unsubsidized Stafford loan and the Subsidized Stafford loan is that the student has the option to either pay on the interest during their in-school, grace and deferment period or allow it to capitalize and pay the interest when repayment begins. We recommend that the student pay the interest if at all possible. This loan was designed to supplement the expected family contribution and is computed by subtracting any actual or estimated financial aid from the cost of attendance. If you are an independent undergraduate or graduate student you are eligible for additional Unsubsidized Stafford. The maximum additional Unsubsidized Stafford loan that can be requested is \$4,000 per year for the first two years of attendance, \$5,000 per year during both the junior and senior years, and \$10,000 per each graduate year.

The Subsidized and Unsubsidized Stafford Loans are similar in the following ways:

Students must complete the Free Application for Federal Student Aid to be eligible to apply for a Stafford loan.

Eligibility for each loan program is already determined on your pre-printed loan application.

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

The interest rate is a variable interest rate based on the 91 day Treasury Bill plus 1.7 percent, capped at 8.25.

Annual Maximums for Subsidized and Unsubsidized Stafford Loans Combined:

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

Aggregate Limits:

\$46,000 for undergraduates with Subsidized Stafford loans comprising no more than \$23,000 of the total limit
 \$138,500 for Graduates with Subsidized Stafford loans comprising no more than \$65,500 of the total limit

Electronic Funds Transfer: Loan approvals are sent electronically in two separate disbursements (minus a 3 percent origination fee) by the lender to the college.

The first disbursement normally arrives at the Office of Student Accounts one to two weeks after the loan approval by NYSHESC during the academic year. The second disbursement is made at the midpoint of the loan period (for the majority of students this is just prior to the spring semester).

Federal Parent Loan

For purposes of obtaining a PLUS loan, an eligible parent borrower is a student's natural or adoptive mother or father or the student's legal guardian. A stepparent may obtain a PLUS loan only if he or she is also an adoptive parent or legal guardian. The spouse of a parent who remarried is eligible to borrow a PLUS loan if the spouse's income and assets would have been taken into account when calculating a dependent student's expected family contribution. Any two eligible parents may borrow separately to provide for the educational expenses of the student provided the combined borrowing of the parents does not exceed the calculated cost of attendance minus other aid. PLUS loan applications can be obtained directly at a parent's student's bank. The completed loan application should be submitted to the financial aid office for processing.

The interest rate for a PLUS loan is the 91 day Treasury Bill, plus 3.1 percent, capped at 9 percent.

Alternative Loans

Various banks are making available a new "breed" of loans that are not federally subsidized. These loans are normally a higher interest rate than the Stafford Loan but are available to a student or to a student and co-

signer depending on credit history. Students should contact their bank for more information.

Federal Consolidation Loan Program

Students having problems repaying several student loans each month may want to consider Loan Consolidation. By consolidating loans, students reduce their monthly payment to one, more manageable payment over an extended period of time. Students should be aware, however, that by consolidating loans, they may trade an attractive lower interest rate on the combined loans. The total interest paid will also most certainly increase because it will take longer to repay the loan. 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*.

Students should contact their bank or lender for further information and applications.

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 FAFSA (using Code 002844) and the FAFSA generated Express TAP Application (using Code 0915).

Within eight weeks of application, the student should receive an award certificate from NYSHESC in Albany, 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 \$137 to \$1,542 per semester.

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

Child of Veteran Award Program

Application Procedures: A Child of Veteran Award Supplement, along with appropriate documentation, must be filed initially with the New York State Higher Education Services Corporation for students who have never been previously approved for the award, are attending a college or post secondary school in New York State and meet the eligibility requirements. An application for payment is required for each subsequent year that the award is requested. These forms (supplements, applications) can be obtained from your high school guidance counselor or directly from the New York State Higher Education Services Corporation, 99 Washington Ave., Albany, NY 12255 or by calling (518) 473-7087.

These forms must be filed by May 1 of the academic year for which the student is applying.

Selection of Recipients and Allocation of Awards: The applicant must be: (1) the child or stepchild (if student is dependent of stepparent) of a New York State Veteran who died, suffered disability of 40 percent or more, was a prisoner of war, or is currently classified as missing in action resulting from service in the U.S. Armed Forces during one of the following periods:

- April 6, 1917 - Nov. 11, 1918
- Dec. 7, 1941 - Dec. 31, 1946
- June 27, 1950 - Jan. 31, 1955
- Dec. 22, 1961 - May 7, 1975
- June 1, 1983 - Dec. 1, 1987 and be a recipient of an expeditionary medal for service in Lebanon
- Oct. 23, 1983 - Nov. 21, 1983 and be a recipient of an expeditionary medal for service in Granada
- Dec. 20, 1989 - Jan. 31, 1990 and be a recipient of an expeditionary medal for service in Panama

- Aug. 2, 1990 - through the end of hostilities in the Persian Gulf
- Dec. 7, 1941 - Aug. 15, 1945 and served in the Merchant Marines

and (2) a New York State resident at the start of the term for which payment is requested. The veteran also must currently be a New York State resident or have been a resident at the time of death (if death occurred during or as a result of service).

Funding Procedure: Awards are made for full-time undergraduate study at an approved New York State school. Recipients of this award receive \$450 per year without consideration of income or tuition costs. The award may be granted for up to five years, depending on the normal length of the program of study. In addition, recipients may also be eligible for TAP awards, however, the combined Child of Veteran award and TAP cannot exceed tuition charges.

Vietnam Veterans Tuition Awards

Vietnam Veterans Tuition Awards (VVTA) provide up to \$1,000 per semester for full-time study or \$500 per semester for part-time study, but cannot exceed \$10,000 for the life of the award. Vietnam veterans must be matriculated at an undergraduate or graduate degree-granting institution, or in an approved vocational training program in New York State. For further information regarding study requirements and amounts, please contact the Veterans Affairs Office at 3176 Mason Hall or call (716) 673-3423.

Persian Gulf Veterans Tuition Award Supplement

The Persian Gulf Veterans Tuition Award (PGVTA) Program provides financial assistance to eligible veterans matriculated in undergraduate and graduate degree programs or enrolled in approved vocational training programs on either a full or part-time basis. To be eligible under this program, the veteran must: (1) have served in the armed forces of the United States in the hostilities that occurred in the Persian Gulf from Aug. 2, 1990 to the end of such hostilities as evidenced by receipt of the Southwest Asia Service Medal; (2) have been discharged from the service under other than dishonorable conditions; (3) be a New York State resident; (4) apply for a Tuition Assistance Program (TAP) award and a Federal PELL Grant if applying as a full-time undergraduate student or for the Federal PELL Grant only if applying as a part-time undergraduate student. The veteran must establish eligibility for a PGVTA before September 1, 1998.

Full-time awards are \$1,000 per semester or tuition, whichever is less. If the veteran also receives a TAP award, the combination of the two awards cannot exceed tuition. Part-time awards are \$500 per semester or tuition, whichever is less. The total of all undergraduate

and graduate awards for full and/or part-time study received cannot exceed \$10,000.

For more information on applying for the award and deadlines contact the Office of Veterans Affairs at 3176 Mason Hall or call (716) 673-3423.

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.

State Aid To Native Americans

Application Procedures: Application forms can be obtained from the Native American Education Unit, New York State Education Department, Education Building Annex - Room 478, Albany, NY 12234 or call (518) 474-0537. Required application materials: (1) completed application form; (2) one of the following: (a) Official High School Transcript, (b) copy of General Equivalency Diploma, (c) College Transcript (if student has completed one or more semesters at the college level); (3) an Official Tribal Certification Form issued by the tribe; (4) copy of college acceptance letter. *Note:* Minor Applicants must have the signature of parent/guardian approving educational plans. These required application materials must be submitted to the above address before July 15 for the fall semester, Dec. 31 for the spring semester, and May 20 for the summer semester.

Selection of Recipients and Allocation of Awards: The applicant must: (1) be a New York State resident, and be on an official New York State tribal roll, or be the child of an enrolled member of a New York State tribe; (2) have a High School diploma, GED, or be enrolled in a

special program at an approved post secondary institution which will lead to a high school equivalency diploma; (3) be enrolled in an approved program offered by a New York State college, university, technical, business, nursing or trade school.

Responsibilities of Recipients: Students are required to: (1) submit their grades at the end of each semester for which funding is received, indicating satisfactory progress toward degree or certificate requirements, (2) notify the Native American Education Unit, in writing, of any change in student status, change in program, or institutional enrollment.

Funding Procedure: Eligible students may receive grant awards of up to \$1,550 per year for four years of full-time study (up to five years for approved five year programs). Part-time students will be funded on a pro-rated basis.

United States Bureau of Indian Affairs Higher Education Grant Program

Application Procedures: Application forms are available from the Education Office of the tribe in which you are affiliated or possess membership, and the Bureau of Indian Affairs (Education Line Officer). An application is required for each year of study. An official needs analysis (obtained from your college financial aid office) is also required. This analysis is provided after the student completes the Free Application for Federal Student Aid (FAFSA).

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: The applicant must: (1) be a member of, or at least one-quarter degree Indian blood descendent of a member of an American Indian tribe which is eligible for the special programs and services provided by the United States through the Bureau of Indian Affairs; (2) be accepted for admission to a nationally accredited institution of higher learning which provides a course of study conferring an associate or bachelor's degree; (3) demonstrate financial need.

Responsibilities of Recipients: For subsequent grants, the applicant must make satisfactory progress towards a degree and demonstrate financial need. Depending on the 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.

For additional information about any aspect of expenses or financial aid, please refer to the *Financial Aid Guide*, a publication of the Financial Aid Office.

EDUCATIONAL COMMUNITY OUTREACH

The Native American SUNY: Western Consortium

SUNY Fredonia continues to support the endeavors of the Native American SUNY: Western Consortium, which focuses upon educational access, opportunity, and development for Native American students and communities. The consortium is comprised of representatives of four Native Nations and 11 SUNY campuses in the Western and Central New York area. For more information, students should contact the office at (716) 673-3170 or 1-800-851-5020.

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. SUNY Fredonia's 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 call 673-3133.

Two other programs associated with Help Service, Inc. are Counsellotapes and Kids Line. **Counsellotapes** are short informational audiotapes on a variety of subjects including personal growth, sexuality, legal problems, drugs and many more. The telephone number for Counsellotapes is 673-3211. Kids Line is a telephone line designed for children who are alone without immediate adult supervision. Children can call 673-3212. Like Help Service, Counsellotapes and Kids Line operate 24-hours a day, year-round. For further information about services or volunteer opportunities, contact the Counseling Center at (716) 673-3424.

Lifelong Learning and Economic Research and Development

The Office of Lifelong Learning and Economic Research and Development, 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. The office works with representatives from community groups and industrial organizations to identify and provide for the specialized educational needs of their memberships.

Lifelong Learning. 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. Students seeking admission through the Lifelong Learning 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 Lifelong Learning 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 Lifelong Learning 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 offer Lifelong Learning 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 Lifelong Learning 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 Lifelong Learning course work will apply toward any degree program at the college.

A student with prior experience who is seeking degree study on a full-time or part-time basis should pursue admission as a transfer applicant (see Transfer Admissions, page 166).

Visiting Student Program. Students presently enrolled at another college or university who wish to pursue academic study at SUNY 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 reviewed following the procedures used in evaluating requests for admission from transfer applicants. Registration in specific courses is offered on a space-available basis.

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

School of Education

The School of Education has direct implications for change and innovation in teacher education and for health care providers. The campus-wide nature of the school 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 school 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 Fredonia service area, the Fredonia-Hamburg Teacher Education Center, and the Office of Field Experiences is fostered and enhanced through the School of Education. The school 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 School 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 SUNY Fredonia and these British institutions, students from England and Wales visit the Fredonia campus at selected times each year. For more information, see the section on International Education on page 148.

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 Pathol-

ogy 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 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 cash, 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.

ACADEMIC POLICIES

Academic Policy and Procedures in Regard to Students With Disabilities

SUNY Fredonia is in compliance with federal laws that require colleges to make reasonable accommodations for otherwise qualified students with disabilities admitted, including students with learning disabilities. 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 Support Services. The student and coordinator will meet and discuss the students' needs, on the basis of the clinical diagnosis that has established the existence of the disability, and will decide on the kinds of assistance most necessary to the student. The coordinator will also be responsible for facilitating tutorial appointments, if necessary, and appointments with the Counseling Center, if necessary. It will be the student's responsibility to see the coordinator on whatever regular basis they may jointly determine.

Students requiring accommodations should contact the Disabled Student Support Services office at the start of each semester. Since student needs might change each semester, the Disabled Student Support Services office must be notified of students' schedules and academic needs.

With the student's written permission, the coordinator will inform the relevant professor(s) of the student's disability on either a semester or need-to-know basis. This will confirm the diagnosis and indicate the general needs of the student. It is incumbent upon the student to identify him/herself to the professor and discuss the specific modifications which are requested. If mutually agreeable adjustments cannot be made, the Coordinator of Disabled Student Support Services will act as mediator. It is strongly recommended that students wishing their professors to be informed do so at the beginning of the semester, rather than immediately prior to the dates that exams or other assignments are due.

SUNY Fredonia is prepared to respond to the needs of students with disabilities. For specific information about services and facilities for the disabled, please contact: Liza N. Smith, coordinator of Disabled Student Support Services, 102C Hendrix Hall, (716) 673-3270.

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, 614 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 to 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 coordinator 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 interdisciplinary coordinator of the intended second major.

Additional majors must be declared at least one semester prior to the date of graduation.

Declaration of a Minor

Students who are interested in declaring a minor must obtain the appropriate form from the Registrar's office, then contact the office of the department in which the minor is requested. Students who are interested in declaring more than one minor program are to follow the procedure outlined above for each one. Minors 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 preliminary degree audit materials which will help determine progress toward completing degree requirements. It is the student's re-

sponsibility to meet with his/her academic advisor to 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 all courses. 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 offices of the Registrar and Student Accounts.

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. A service charge of \$30 is imposed for registrations taking place after the third day of classes.

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. After the drop deadline, students must withdraw, except for first semester freshmen, who may drop up to Monday following Course Selection Week for the following semester.

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 and ending with the withdrawal date published by the Registrar each semester (generally, the seventh week), 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.

During the second full week of the semester, an instructor may petition the Registrar to have a student dropped from a course. This may be done because the student has not been attending classes, and there are other students wishing to add the course. When an instructor initiates such action, the Registrar will make an effort to contact the affected student and, if the student wishes to remain in the course, the student will be allowed to do so, but will be urged to contact the instructor immediately.

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 add, 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 Graduate Dean. 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 Graduate Dean. 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 SUNY Fredonia graduate program they enter at a later time. In the latter case, a student will be charged the difference between undergraduate and graduate tuition when the credit is applied to the graduate transcript. 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 secure the approval of the chairperson of his/her major department. 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 a student must have had before taking the course in question, in order to understand it. For other courses there are recommendations regarding courses or experiences that might be beneficial, but not necessary, to have. A few courses have *corequisites*, which must either be taken before or together with the course in question. Information about pre- and corequisites, and recommendations, 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 203.

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

SUNY 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.

The following courses may NOT be taken Pass-Fail:

- Courses at the 100-level
- Courses which are part of the professional semester
- Courses required for a major, a minor or the General College Program

Departments may designate other courses as not applicable to the pass-fail option; such courses are identified in the *Course Offerings Bulletin*.

Within the limitations given, students may enroll for courses as free electives on the pass-fail basis:

1. Completion of a minimum of 39 semester hours toward the bachelor's degree is required before enrollment in pass-fail courses.
2. 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.

3. No more than 16 semester hours 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.

4. 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.

5. 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.

A student who wishes to take a course at another college and have the credit substitute for a course already taken at SUNY 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 earns 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 SUNY Fredonia grade for the equivalent course will be changed to an "R."

The Course Repeat Option may not be exercised by students who have been required to withdraw, unless the student is subsequently readmitted and enrolled in courses leading to a degree program at SUNY Fredonia.

Course repeat forms are available in the Office of the Registrar and should be filed after the mid-point of the semester and prior to the final three weeks of the semester.

Course Challenge Option

Students may enter college already possessing the skills or knowledge taught in a particular college course. If such a course is required or is a prerequisite for other

courses, and if the students can prove to the satisfaction of the department offering the course that they indeed possess the skills or knowledge in question, the requirement will be waived or the students will be placed in the course for which they qualify, without receiving credit for the prerequisite or required course.

In unusual cases, academic departments may be willing to grant college credit for a given course to students who can demonstrate prior knowledge of the course materials or skills. The course in question will not be one in which the classroom process itself is an important focus, as it is in courses dependent on small group discussion or problem-solving, computer work, laboratory experiments, group projects, and the like. To "challenge" a suitable course by demonstrating that one can pass the course without taking it, a student must first apply to the chairperson of the department offering the course. The application should include a detailed description of the manner in which the student has already met the goals and objectives of the course. If the chairperson deems the course available for challenge and if he or she believes the student's application to have merit, the department will determine the manner in which the student is to demonstrate his or her knowledge and/or proficiency. If, in the department's opinion, the student's performance is adequate, the chairperson will recommend to the Registrar that the student be awarded credit for the course. No grade will be given, and the student's quality point average will not be affected.

Credit by Examination

The college participates in three examination programs: the College Proficiency Examination Program of the New York State Education Department, Albany, NY; 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, NY. 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 at Fredonia. Students applying for such approval should provide the chairperson and Registrar a copy of the course description from the other college catalog. Transfer Credit Approval forms are available in the Office of the Registrar.

Students who have been required to withdraw from the college may not complete degree requirements by taking courses at another college, unless they are subsequently readmitted and enrolled in courses leading to a degree program at SUNY Fredonia.

Credit for non-collegiate sponsored instruction will be awarded upon the recommendation of the appropriate Dean, 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 Director of the General College Program 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 credit should be limited to 4 hours.

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	Very Good
B-	
C+	
C	Fair
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. A student wishing to be considered for an I grade in a course must contact the instructor before the end of the semester. If the instructor determines that an I grade is appropriate, then the instructor will consult with the student and determine the deadline for completing the work for the course. Once the work for the course has been completed, *and received by* the instructor, the instructor should submit the student's revised grade for the course to the Registrar's office within two weeks.
- 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 for 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.

A student or alumna/nus must initiate the appeal process within one calendar year after receiving a final transcript.

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 instructor for whom he/she is writing the paper, exercise, or examination. SUNY Fredonia strongly condemns plagiarism and takes severe action against those who plagiarize. For procedures, see page 203.

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 3.30 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:

(1.) A student will be placed on probation if the cumulative quality point average falls below a 2.00.

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.

(2.) Probationary status is determined in accordance with the above standards and is not dependent upon official notification.

(3.) "Good academic standing" is defined as maintaining a cumulative quality point average at or above the appropriate level in (1) above or being on probationary status. Students should also refer to the financial aid section (page 178) on academic standing and its relationship to financial aid eligibility.

(4.) 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 level stated above.

(5.) 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 Vice President for Academic Affairs (or designee), the Academic Deans, the Vice President for Student Affairs (or designee), the Director of Academic Advising, 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 Academic Dean.

Leave of Absence Policy and Continuing Enrollment

A student who has maintained a 2.0 or better overall cumulative quality point average and a 2.0 or better 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 April). 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 170-172.

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

Students who have withdrawn from the college and wish to return may obtain an application for Readmission from the Office of Admissions. Requests for Readmission are reviewed by a committee consisting of the appropriate academic dean, department chairperson, the Vice President for Student Affairs 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 at least one academic semester has elapsed, and should present evidence of successful academic achievement at another college. The Readmission Committee evaluates academic achievement, potential for academic success, and work experience when reviewing applications for readmission.

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 SUNY Fredonia will be entered on the transcript, but no credit will be awarded for "D" grades earned prior to readmission. The cumula-

tive quality point average will reflect only the average since readmission, and a minimum of 45 additional credit hours of graded work must be completed at SUNY Fredonia prior to graduation and after readmission.

The Readmission Committee will review each application to determine readmission status.

COLLEGE CALENDAR 1999-2001

1999-2000 FALL

Aug. 23 (M)
Aug. 24 (Tues.)
Sept. 6 (M)
Sept. 17 (F)
Oct. 7-8 (Thurs.-F)
Nov. 22-26 (M-F)
Dec. 10 (F)
Dec. 13-17 (M-F)

SPRING

Jan. 19 (W)
Jan. 20 (Thurs.)
Feb. 25 (F)
March 20-24 (M-F)
April 24 (M)
May 5 (F)
May 8-12 (M-F)
May 13 (Sat.)

Registration
First Day of Classes
Labor Day Break
Final Day to Apply for Dec. Graduation
October Break
Thanksgiving Break
Last Day of Classes
Exams

Registration
First Day of Classes
Final Day to Apply for May Graduation
No Classes - Spring Break
No Classes - Travel Day
Last Day of Classes
Exams
Commencement

2000-2001 FALL

Aug. 28 (M)
Aug. 29 (Tues.)
Sept. 4 (M)
Sept. 22 (F)
Oct. 12-13 (Thurs.-F)
Nov. 20-24 (M-F)
Dec. 15 (F)
Dec. 18-22 (M-F)

SPRING

Jan. 17 (W)
Jan. 18 (Thurs.)
Feb. 23 (F)
March 19-23 (M-F)
April 16 (M)
May 4 (F)
May 7-11 (M-F)
May 12 (Sat.)

Programs	Curr. Code	HEGIS Code	Degree	Programs	Curr. Code	HEGIS Code	Degree
Accounting	238	0502	B.S.	Music Education K-12	152	0832	Mus.B
Acting	234	1007	B.F.A.	Music History and Literature	210	1006	B.A.
Anthropology	240			Music Theory	206	1004.10	B.A.
Art:				Music Therapy	348	1099	B.S.
Studio/History	202	1002	B.A.	Philosophy	217	1509	B.A.
Studio	201	1002	B.F.A.	Physics	228	1902	B.S.
Biochemistry	244	0414	B.S.	Political Science	214	2207	B.A.
Biology	225	0401	B.S.	Psychology	207	2001	B.A.
Business Administration	237	0506	B.S.	Recombinant Gene Tech.	243	0499	B.S.
Cooperative M.B.A.	237	0506		Social Work	218	2104	B.S.
Chemistry	226	1905	B.S.	Sociology	215	2208	B.A.
Communication	242	0601	B.S.	Sound Recording Tech.	347	1099	B.S.
Communication Disorders and Sciences	317	1220	B.A.	Spanish	209	1105	B.A.
Computer and Information Sciences	241	0701	B.S.	Speech and Hearing Handicapped	117	0815	B.S.Ed.
Cooperative Agriculture	223			Teacher Certification Areas:			
Cooperative Engineering	222			Biology 7-12	127	0401.01	B.S.
Cooperative Special Educ.	118	0808		Chemistry 7-12	128	1905.01	B.S.
Cooperative Teachers of Excep. and Elem. Educ.	118	0808		Earth Science 7-12	131	1917.01	B.S.
Early Childhood Education	101			English N-9		0804.01	
Earth Science	219	1917	B.A.	7-12		1501.01	
Economics	216	2204	B.A.	French N-9	122		B.A.
Elementary Education N-6	100	0802	B.S.Ed.	7-12		0804.05	
English	203	1501	B.A.	General Science		1102.01	
French	204	1102	B.A.	German	123	0804.04	
General Studies	177			Mathematics N-9	126		B.S.
Geochemistry	220	1915	B.S.	7-12		0804.03	
Geology	227	1914	B.S.	Physics	129	1902.01	B.S.
Geophysics	224	1916	B.S.	Social Studies N-9	125		B.A.
German	212			7-12		0804.02	
Health Services Admin.	239	1202	B.S.	Spanish N-9	124	2201.01	
History	213	2205	B.A.	7-12		0804.07	
Industrial Management	235	0599	B.S.	7-12		1105.01	
Interdisciplinary Studies:				Theatre Arts:			
General	300	4901	B.A.	B.A.	230	1007	
Mathematics	301	4901	B.S.	B.F.A.			
Mathematics-Physics	315	4901		Acting	234	1007	B.F.A.
Media Arts:	221	1701	B.S.	Production Design	236	1007	B.F.A.
General	229	1799	B.S.	Time-Shortened Degree: 3-1-3	199		
Composition	250	1099	B.A.	Special Programs:			
Performance	252	1099	B.F.A.	Continuing Education	003		
Musical Theatre	251	1099	B.S.	Empire State	007		
Medical Technology	231	1223	B.S.				
Music-Applied	205	1004	B.A.				
Music:			Mus.B.				
Composition	346	1004					
Performance	340	1004					
Musical Theatre	232	1004	B.F.A.				

Requirements for the Bachelor's Degree

Graduation from the college with the award of the appropriate degree (Bachelor of Arts, Bachelor of Science, Bachelor of Science in Education, 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 unduplicated 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 multi-discipline 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 SUNY 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 their Academic Dean, to determine how much of their earlier credit is still applicable. This rule applies not only to credit earned at SUNY Fredonia, but also to credit transferred to Fredonia from other colleges. In addition, after 10 years, students will generally be required to complete the current General College Program requirements. The GCP Director will review the student's record of studies to determine how much of his/her earlier general education credit is still applicable.

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 third 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.

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. SUNY Fredonia students wishing to earn two degrees concurrently must complete a minimum of 150 semester hours and complete the requirements for the two degrees during the semester in which they have applied for graduation. The two degrees may not be of the same type as registered by the New York State Education Department. For example: a B.A. and a B.S. would be appropriate, but two B.A. degrees would not, as the latter can be accomplished in the declaration of a second major.

2. SUNY 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.

3. New students seeking an additional bachelor's degree must take a minimum of 45 semester hours at SUNY Fredonia and must successfully complete the requirements of their additional major or program.

4. A minimum of 15 credit hours must be successfully completed in the discipline of the second degree program. Of these 15 credit hours, no more than 3 credit hours may be taken as an independent study or internship. The department chairperson of the proposed degree program will prepare a written contract outlining the required courses, prior to admission to the program.

5. 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.

6. Students must meet all their financial obligations to the college and any or all of its supporting agencies.

7. A student who expects to graduate at a given date must make application through the Registrar's office, not later than the third full week of classes of the final semester of attendance.

8. 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 3.30 and 3.49.

Students may graduate with honors only when they have completed at least 45 hours of graded work at SUNY 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 SUNY 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. (For information on changes to transcripts, see Student Appeals of Grades, page 192.)

Name Changes

A student whose name is changed should report the change in writing 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 198-204.

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. SUNY Fredonia has undertaken retention studies to determine entering freshmen cohort return and graduation rates. At the end of the first year, 81 percent of the freshmen remained enrolled for the second year. Most recent data reflect the proportion of freshmen completing their baccalaureate degree at SUNY Fredonia to be 48 percent within four years, 64 percent within five years, and 66 percent within six years from initial date of entrance.

Approximately 45 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 203, Maytum Hall.

Program Registration

SUNY Fredonia's baccalaureate and graduate programs are registered by the New York State Education Department. For information, contact the New York State Education Department, Office of Higher Educa-

tion and the Professions, Cultural Education Center, Room 5B28, Albany, NY 12230, or call (518) 474-5851.

Statement Regarding SUNY Fredonia's Celebration of Diversity

The college welcomes the experience, talent, and surge of energy that comes from a culturally diverse campus. As described in the *Tapestry* publication, "(t)he vision of multicultural equality affirms the uniqueness and worth of each person as an integral part of the beautiful tapestry of life, and the need of human beings to live together in community."

All members of the campus community are expected to live, learn, and work with a foundation of understanding and appreciation of differences. The college has pledged to ensure that everyone is treated fairly, regardless of race, religion, ethnicity, gender, sexual preference, physical/mental challenge, or other characteristics not germane to a person's right or human worth. Faculty and staff, as mentors and educators, are expected to support and demonstrate their understanding of this policy through their daily personal interactions.

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 Be-

havior listed below may result in privilege restriction, suspension, or dismissal.

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.

In addition, the College President may temporarily revoke or restrict the privilege of representing the institution in college sponsored activities, pending a decision by the hearing board.

Alleged violation of any of the following will result in charges being filed against you.

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 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 200).

(f) Participation in any form of non-consensual sexual intimacy and unwanted physical sexual conduct (note Policy Statement on page 201).

(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, harassment, or

excessive ridicule in the course of another person's initiation into or affiliation with any organization.

SUNY 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 Vice President of Student Affairs and the college Judicial Board. Member organizations of the Inter Greek 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 Vice President of Student Affairs 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 SUNY 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 and October 1994, 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 Williams Center Campus Life 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, 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. If you are charged with a violation of the rules and regulations, the following options exist; you may choose administrative action, or you have the right to a College Judicial Board hearing. 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 Vice President for Student Affairs or his/her designee 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 by the Chairperson of the College Judicial Board.
3. The Office of Student Affairs 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 closed. 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.
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.

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 Cheating, Plagiarism, and Collusion

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.

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 Saturday, 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 of 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 University Police (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 University Police office 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 SUNY 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 SUNY 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:

Ruth Antosh, Foreign Languages (ext. 3387)
 Ann McCarron Burns, University Police (ext. 3465)
 L. Michael Dimitri, Student Affairs (ext. 3271)
 Leanna White, Counseling Center (ext. 3424)
 Vice President for Academic Affairs (ext. 3335)
 Director of Affirmative Action (ext. 3358)

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 SUNY 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 SUNY 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 10 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 of 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 designee 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.

NEW YORK STATE EDUCATION
DEPARTMENT POSTSECONDARY
COMPLAINT NOTICE

Please note that the State University College at Fredonia administers internal procedures to receive, investigate and resolve student complaints concerning requirements established in this catalog. Informal and formal means by which students can seek redress of grievances are identified through this document. Students are assured of a reasonable and appropriate time frame for investigating and resolving a formal complaint, that final determination of each formal complaint will be made by a person or persons not directly involved in the alleged problem, that assurances that no adverse action will be taken against a student filing a complaint and that notice to students about the state consumer complaint process has been made.

Informal and formal complaints should be initiated in the appropriate departments. In the absence of a timely response or resolution, a student should contact one of the following offices:

Office of the Vice President for Academic Affairs, 8th floor, Maytum Hall (Ext. 3335)

Office of the Vice President for Student Affairs, 6th floor, Maytum Hall (Ext. 3271)

Office of the Vice President for Administration, 5th floor, Maytum Hall (Ext. 3109)

Office of Human Resources, 5th floor, Maytum Hall (Ext. 3434)

In addition, in New York State, a complaint may be filed by any person with reason to believe that an institution has acted contrary to its published standards or that conditions at the institution appear to jeopardize the quality of the institution's instructional programs or the general welfare of its students. Any person who believes he or she has been aggrieved by an institution on or after May 4, 1994, may file a written complaint with the department within three years of the alleged incident.

How to File a Complaint

1. The person should first try to resolve the complaint directly with the institution by following the internal complaint procedures provided by the institution. An institution of higher education is required to publish its internal complaint procedure in a primary information document such as the catalog or student handbook. (The department suggests that the complainant keep copies of all correspondence with the institution.)

2. If a person is unable to resolve the complaint with the institution or believes that the institution has not properly addressed the concerns, he or she may send a

letter or telephone the Postsecondary Complaint Registry to request a complaint form. Please telephone (212) 951-6493 or write to:

New York State Education Department
Postsecondary Complaint Registry
One Park Avenue, 6th Floor
New York, NY 10016

3. The Postsecondary Complaint Registry Form should be completed, signed, and sent to the above address. The completed form should indicate the resolution being sought and any efforts that have been made to resolve the complaint through the institution's internal complaint processes. Copies of all relevant documents should be included.

4. After receiving the completed form, the department will notify the complainant of its receipt and make any necessary request for further information. When appropriate, the department will also advise the institution that a complaint has been made and, when appropriate, the nature of the complaint. The complainant will also be notified of the name of the evaluator assigned to address the specific complaint. The evaluator may contact the complainant for additional information.

5. The department will make every effort to address and resolve complaints within 90 days from receipt of the complaint form.

Complaint Resolution:

Some complaints may fall within the jurisdiction of an agency or organization other than the State Education Department. These complaints will be referred to the entity with appropriate jurisdiction. When a complaint concerns a matter that falls solely within the jurisdiction of the institution of higher education, the complainant will be notified and the department will refer the complaint to the institution in question and request that the matter receive a review and response.

Upon conclusion of the department's complaint review or upon a disposition of the complaint by referral to another agency or organization, or to the institution of higher education, the department will issue a written notice to the complainant describing the resolution of the complaint. The complainant may contact the department evaluator directly for follow-up information or for additional assistance.

GENERAL STATEMENT

State University of New York

State University of New York's 64 geographically dispersed campuses bring educational opportunity within commuting distance of virtually all New Yorkers and comprise the nation's largest system of public higher education.

When founded in 1948, the university consolidated 29 state-operated but unaffiliated institutions whose varied histories of service dated as far back as 1816. It has grown to a point where its impact is felt educationally, culturally and economically the length and breadth of the state.

As a comprehensive public university, SUNY provides a meaningful educational experience to the broadest spectrum of individuals. Nearly 367,000 students are pursuing traditional study in classrooms and laboratories or are working at home, at their own pace, through such innovative institutions as the SUNY Learning Network and Empire State College, for over 25 years a leader in non-traditional education, distance learning, and assessment of prior learning.

Of the total enrollment, approximately 39.4 percent of the students are 25 years of age or older, reflecting State University's services to specific constituencies, such as training courses for business and industry, continuing educational opportunities for the professional community, and personal enrichment for more mature persons.

SUNY's students are predominantly New York State residents. Representing every one of the state's 62 counties, they make up more than 96 percent of the university's undergraduate student population. SUNY students also come from every other state in the United States, from four U.S. territories or possessions, and from more than 160 foreign countries.

SUNY enrolls 35 percent of all New York State high school graduates, and its total enrollment of just under 370,000 (full-time and part-time) is approximately 37 percent of the state's entire higher education student population. Between 1976 and 1995, the university recorded a 160 percent increase in the enrollment of African, Asian, Hispanic and Native Americans, compared with a 63 percent average increase among colleges and universities across the state.

Because of its structure and comprehensive programs, SUNY offers students a wide diversity of educational options: short-term vocational/technical courses, certificate programs, baccalaureate degrees, graduate degrees, and post-doctoral studies. The university offers access to almost every field of academic or professional study somewhere within the system - some 5,180 programs of study overall.

Curricula range from those in the more conventional career fields, such as business, engineering, medicine, teaching, performing arts, social work, finance and forestry, to those concerned with tomorrow's developing and societal needs in the areas of environmental science, urban studies, immunology, information systems, biotechnology, telecommunications, microbiology and health services management.

As part of the university's commitment to bring to the students of New York the very best and brightest scholars, scientists, artists and professionals, SUNY's distinguished faculty is recruited from the finest graduate schools and universities throughout the United States and many countries around the world, and includes nationally and internationally recognized figures in all the major disciplines. Their efforts are regularly recognized in numerous prestigious awards and honors.

State University's research contributions are helping to solve some of today's most urgent problems. At the same time, contracts and grants received by university faculty directly benefit the economic development of the regions in which they are located.

SUNY researchers pioneered nuclear magnetic resonance imaging, introduced time-lapse photography of forestry subjects, isolated the bacteria that causes Lyme disease, and developed the first implantable heart pacemaker. Other university researchers continue important studies in such wide-ranging areas as breast cancer, immunology, marine biology, sickle-cell anemia, and robotics, and make hundreds of other contributions, inventions and innovations for the benefit of society.

The university's program for the educationally and economically disadvantaged, consisting of Educational Opportunity Programs (EOP) and Educational Opportunity Centers (EOC), has become a model for delivering better learning opportunities to young people and adults traditionally bypassed by higher education. Over the past 30 years, almost 482,000 New York State residents have been served.

EOPs currently serve 11,500 students at 47 SUNY campuses, providing counseling and tutoring to improve scholastic performance, and support services in such areas as academic planning, housing and financial aid. At EOCs in 10 locations across the state, an additional 13,000 students are improving educational competencies, preparing for college entry, or learning marketable skills and occupations.

The 30 locally-sponsored two-year community colleges operating under the program of SUNY offer local citizens programs that are directly and immediately job-related as well as degree programs that serve as job-entry educational experience or a transfer opportunity to a baccalaureate degree at a senior campus. In the forefront of efforts to meet the accelerating pace of technological developments and the requirements of continuing educational opportunity, they provide local industry with trained technicians and help companies and employees in retraining and skills upgrading.

As a public university, SUNY has a special responsibility to make its rich and varied resources accessible to all. By focusing its educational system on the needs of the state, the university becomes a valuable resource for meeting those needs for today and tomorrow.

SUNY believes efficiencies in instructional delivery and administrative transactions can be achieved while preserving affordable, quality higher education for its students. In 1995, the Board of Trustees developed the document, "Rethinking SUNY," in response to a call from the State Legislature for a "multi-year, comprehensive system-wide plan to increase cost efficiency." Underlying "Rethinking SUNY" is the theme of increasing efficiency by empowering campuses to manage directly more of their academic and financial affairs and by eliminating disincentives to the prudent use of campus and system resources.

SUNY's involvement in the health sciences and health care is extensive and responsive to the rapid changes in society and the growing needs identified by the state's public health community. Hundreds of thousands of New York's citizens are served each year by medical and health sciences faculty and students in university hospitals and clinics or affiliated hospitals.

The university's economic development services programs provide research, training and technical assistance to the state's business and industrial community through Business and Industry Centers, the New York State Small Business Development Center, the Strategic Partnership for Industrial Resurgence, Rural Services Institutes, the Trade Adjustment Assistance Center, Technical Assistance Centers, Small Business Institutes, Centers for Advanced Technology, and international development.

SUNY's libraries, the major resource which supports the teaching and research activities of its students and faculty, are an important community resource too. Nearly 6 million items circulated by campus libraries in fiscal year 1995-96, another 3 million items were used in-house and almost a quarter million items were made available to the wider community through interlibrary loan. Increasingly, the circulation methods reflected in these traditional statistics are supplemented by electronic and Internet access. Annual attendance at the university's libraries is more than 21 million students, faculty and public citizens. More than 20 million volumes and government documents are available, as well as nearly 14,000 CD-ROMS and other computer files. More than 2 million reference questions were answered, many consisting of requests for help with CD-ROM and online database searches.

The university passed a major milestone in the mid-1980s when it graduated its one-millionth alumnus, and currently numbers 1.9 million graduates on its rolls. The majority of SUNY's alumni reside and pursue careers in communities across New York State, contributing to the economic and social vitality of its people.

State University of New York 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 of Trustees is defined by law.

The university's motto is, "To Learn - To Search - To Serve."

STATE UNIVERSITY OF NEW YORK

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CHEN-LUNG RINGO MA, *Associate Professor*
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LEONORE LOFT, *Professor* (French)
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HOWARD B. WESCOTT, *Professor* (Spanish)
Brown University, Ph.D.

CLARK M. ZLOTCHEW, *Professor* (Spanish)
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President's Award for Excellence in Teaching, 1988
Kasling Lecturer, 1992

Geosciences

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University of New Mexico, Ph.D.

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NAJIA AARIM, *Assistant Professor*
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Kasling Lecturer, 1981

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Kasling Lecturer, 1983

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The State University Chancellor's Award for Excellence in Librarianship, 1983

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Mathematics and Computer Science

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President's Award for Excellence in Teaching, 1997

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