

FREDONIA

Graduate Catalog



1995-1997

State University of New York College at Fredonia

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

Liza N. Smith
Coordinator of Disabled Student Support Services
102C Hendrix Hall
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Senior Personnel Associate, Office of Human Resources
613 Maytum Hall
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The State University of New York College at Fredonia fully subscribes to the Non-discrimination Policy of the State University of New York.

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

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

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

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

Information in this catalog is accurate as of January 1, 1995. However, **all information is subject to change**. Updated information maybe 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 **Graduate Catalog** is published by the Office of College Information Services.

ACCREDITATION

The College at Fredonia is fully accredited by:

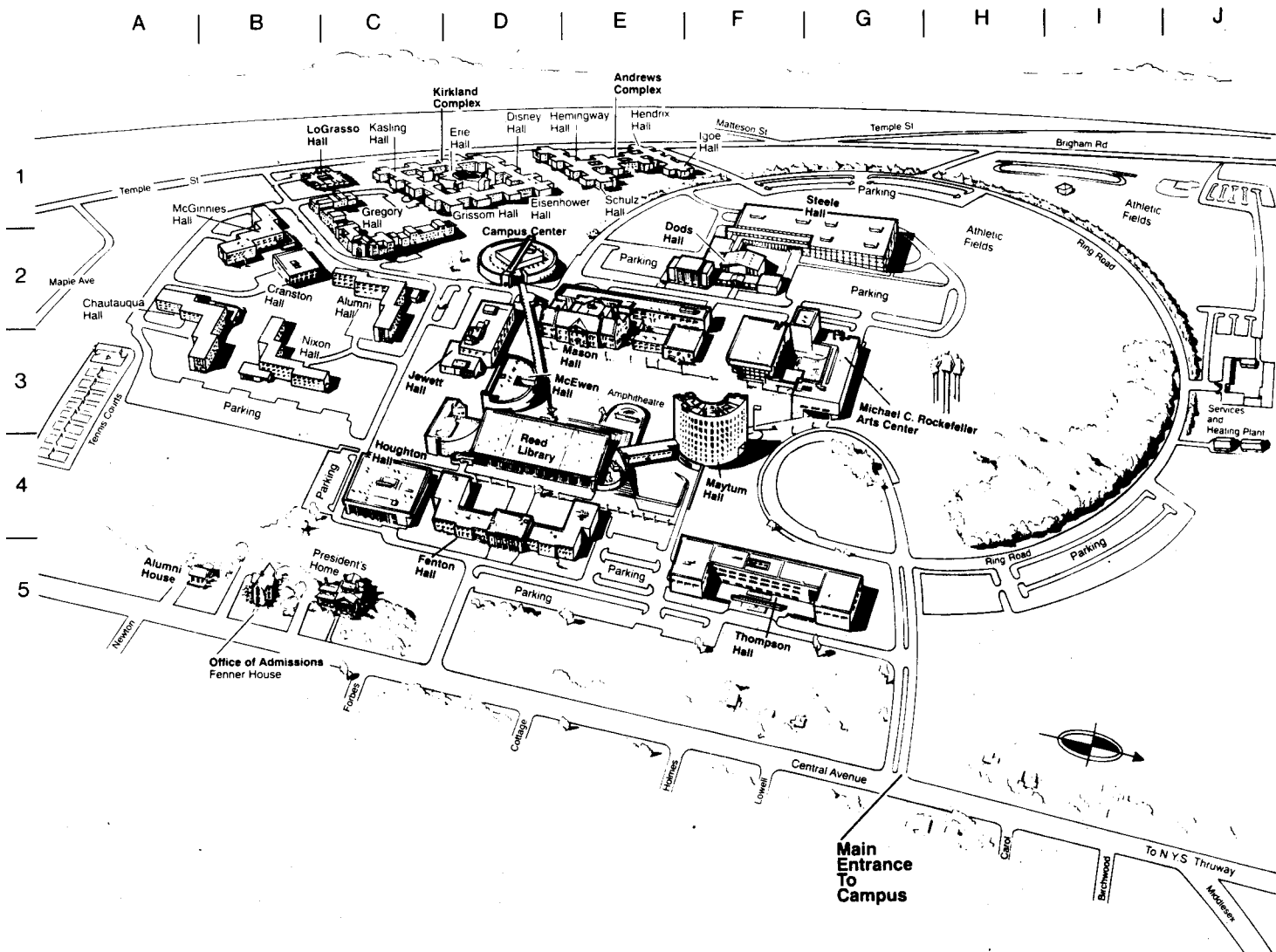
- Board of Regents of the University of the State of New York
- Middle States Association
- National Association of the Schools of Music
- National Association of the Schools of Theatre
- Educational Standards Board of the American Speech-Language Hearing Association

FREDONIA

**State University of New York
College at Fredonia**

Fredonia
New York 14063

Graduate Catalog



Campus Map

c-2	Alumni Hall Residence	E-1	Hendrix Hall Learning Center/ Residence	B-2	McGinnes Hall Residence
A-5	Alumni House	c-4	Houghton Hall Sciences	B-3	Nixon Hall Residence
E-1	Andrews Complex Residence	D-3	Jewett Hall Sciences/ WNYF-TV	D-4	Reed Library
D-2	Campus Center	c-1	Kirkland Complex Residence	G-3	Michael C. Rockefeller Arts Center
A-2	Chautauqua Hall Residence	B-1	LoGrasso Hall Health Center/ Lifelong Learning, and Economic Development	J-3	Services Complex Maintenance/Heating Plant/ Central Receiving
B-2	Cranston Hall Dining	E-2	Mason Hall Music	G-2	Steele Hall Fieldhouse
F-2	Dods Hall Physical Education	F-4	Maytum Hall Offices	F-5	Thompson Hall Education/Social Sciences/ Educational Studies/ Creative Support Services/ Graduate Education
c-1	Erie Hall Dining	D-3	McEwen Hall Classrooms/ WCVF Radio	c-5	President's Home
B-5	Fenner House Office of Admissions				
D-4	Fenton Hall Classrooms/ Offices(President's Office)				
c-2	Gregory Hall Public Safety/FSA/ Office of Residence Life				

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COLLEGE CALENDAR 1995-97

1995-96 FALL

Aug. 28 (M)
Aug. 29 (Tues.)
Sept. 4 (M)
Sept. 22 (F)
Oct. 4-6 (Wed. -Fri.)
Nov. 20-24 (M-F)
Dec. 15 (F)
Dec. 18-22 (Men. -Fri.)

Registration
First Day of Classes
Labor Day Break
Final Day to Apply for December Graduation
October Break
Thanksgiving Break
Last Day of Classes
Exams

1996-97 FALL

Aug. 26 (M)
Aug. 27 (Tues.)
Sept. 2 (M)
Sept. 20 (F)
Oct. 2-4 (Wed. -Fri.)
Nov. 25-29 (M-F)
Dec. 13 (F)
Dec. 16-20 (Men. -Fri.)

SPRING

Jan. 22 (M)
Jan. 23 (Tues.)
Feb. 19 (M)
Feb. 23 (F)
April 3-12 (Wed. -Fri.)
May 10 (F)
May 13-17 (Men. -Fri.)
May 18 (Sat.)

Registration
First Day of Classes
No Classes - President's Day
Final Day to Apply for May Graduation
No Classes - Spring Break
Last Day of Classes
Exams
Commencement

SPRING

Jan. 21 (Tues.)
Jan. 22 (W)
Feb. 28 (F)
Mar. 19-28 (Wed. -Fri.)
May 9(F)
May 12-16 (Men. -Fri.)
May 17 (Sat.)

Summer Session Calendars 1996-97

SUMMER SESSION I

1996

May 28 (Tues.)
May 29 (W)
July 2 (Tues.)
July 3 (W)

In-Person Registration
First Day of Classes
Last Day of Classes
Final Exams

1997

May 27 (Tues.)
May 28 (W)
July 2 (W)
July 3 (Thurs.)

SUMMER SESSION 11

July 8 (M)
July 9 (Tues.)
Aug. 8 (Thurs.)
Aug. 9 (F)

In-Person Registration
First Day of Classes
Last Day of Classes
Final Exams

July 7 (M)
July 8 (Tues.)
Aug. 7 (Thurs.)
Aug. 8 (F)

THE GRADUATE PROGRAM

The State University of New York College at Fredonia offers programs of graduate study leading to the degrees of Master of Arts; Master of Science, Master of Music, and Master of Science in Education, and the Advanced Certificate. Permanent certification to teach in the public schools of New York may be secured concurrently with the master's degree if the student follows the appropriate program designed for this purpose.

Graduate instruction at Fredonia is offered during the academic year and in summer sessions. Many courses are scheduled in the late afternoon and evening to accommodate the employed student.

Each degree student's program is individually formulated in consultation with a departmental advisor. Within the framework of this program, the student pursues graduate study consistent with his/her previous preparation and directed toward his/her own professional objectives.

The Graduate Faculty

Graduate courses are taught by faculty members who by their scholarly attainments in their own fields of specialization have demonstrated their competence to offer graduate instruction. Since most classes are small, students are able to work closely with their instructors, and often join them in research projects. Information about the research interests of faculty members is available from their department chairpersons.

Educational Studies

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

The Graduate Council

The Graduate Council consists of 15 elected members, representing the departments which have graduate programs, members from the faculty-at-large, graduate students, and administration including the Dean for Educational Studies and the Dean for Arts and Sciences.

The Graduate Council is charged with supervising and reviewing graduate programs at the College at Fredonia in an advisory capacity to the Vice President for Academic Affairs. Working under the chairpersonship of deans appointed by the President of the college, the council explores ways to maintain the strengths of the college's graduate programs, and to improve, through encouragement and review, service to students, the community, and the State University of New York.

The Graduate Education Program declares as its mission:

- To improve the quality of life for present and future generations by providing a sound education for graduate students.
- To contribute to the knowledge and practice of professionals already in the field and to prepare teachers and administrators of elementary/secondary schools, and health care providers.
- To complement and enhance the undergraduate program by providing models of advanced work in the disciplines and professions.
- To generate and share new knowledge through the research and publication of its faculty and students.
- To provide and support master's degree programs leading to advanced qualification in the professions and disciplines.
- To be actively involved in the life of the surrounding community, in curriculum development, in related professional activities; to encourage a supportive sense of community, and to influence and facilitate the development of social and educational, policy.
- To acknowledge the value of pluralism and diversity in culture and society.

Admission to Graduate Study

Applications should be filed with the, Office of Admissions by July 5 for admission to the fall semester, by Nov. 1 for the spring semester, and by April 20 for the summer sessions. Students maybe admitted into a degree program or as non-degree students.

Exceptions to these admission guidelines may be found in selected academic departments, i.e. the Department of Speech Pathology and Audiology has a Dec. 1 application deadline for admission for the

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following Fall Semester, and a Sept. 1 application deadline for admission the following spring. It is important to contact the particular departments for any additional requirements for admission.

Admission to graduate study is based on the following requirements:

1. Completion of the baccalaureate degree at an accredited four-year institution with an appropriate major and depth of undergraduate preparation.
2. An Application for Admission to Graduate Study filed with the Office of Admissions and approved by the chairperson of the desired department or by the appropriate dean.
3. Submission of official transcripts from all institutions attended (except Fredonia) covering prior graduate as well as undergraduate preparation.
4. Submission of at least two letters of recommendation from individuals who can attest to the applicant's qualifications for advanced study, for applicants to degree programs.
5. For students in programs leading to permanent certification to teach, proof of the appropriate provisional certification.

Good Academic Standing

Graduate students pursuing a degree are required to maintain a minimal grade point average of 3.0. At the end of each semester, the records of all degree students are reviewed. Students whose average is below 3.0 are placed on academic probation for one semester. If, at the end of their next semester, they have not re-established the required average, they will be required to withdraw from the college. A student is considered to be in good academic standing even while on probation. The purpose of the probationary semester is to give the student sufficient warning of academic danger.

The college is aware that there may be exceptional circumstances which make it impossible for a student to regain the required academic average at the end of one semester. Under those circumstances, the student may appeal the required withdrawal, with the support of his or her advisor and the chairperson of the major department.

As a general rule, students taking graduate courses without pursuing a degree who decide to apply for a degree program should have a grade point average of at least 3.0 at the time they apply. Under unusual circumstances, chairpersons may accept students with a lower GPA into a degree program, but in that

case, the students enter in probationary status, with one semester in which to improve their records.

Graduate Degree Requirements

1. Completion of the specific curricular requirements for the degree, as outlined in this catalog, with a minimum cumulative quality point average of 3.00 in all graduate work at the College at Fredonia.
2. Completion of all degree requirements within a five-year period beginning the semester of admission to a degree program, unless an extension has been recommended by the chairperson of the department in which the student is majoring and approved by the appropriate dean.
3. Recommendation of the department in which the student is majoring.
4. Fulfillment of residence requirements as explained below.
5. Application for the degree filed with the Registrar at least three months prior to the expected date of completion of degree requirements.

A candidate for the master's degree must have completed at least 15 semester hours of graduate work in residence. A graduate student is expected to make steady and reasonable progress, as determined by the department in which he/she is enrolled, toward the completion of his/her degree requirements. Students not making reasonably steady progress will be required to withdraw from the program.

A maximum of 15 hours credit in graduate work earned while enrolled as a non-degree student may be applied toward the master's degree, subject to the recommendation of the major department and approval of the appropriate dean.

The requirements to be met for a graduate degree are those in effect at the time the student is admitted to the degree program.

Thesis and Comprehensive Examination

All degree programs require a thesis, comprehensive examination, or other evidence of the student's mastery of his/her field. Information concerning the requirements for individual programs is contained in the descriptive material under curricular requirements in this catalog.

Thesis and comprehensive examination requirements must be completed at least four weeks prior to the expected date of the award of the degree. All master's theses will be prepared in accordance with a

set of uniform instructions which maybe secured from the appropriate dean. A description of specific departmental requirements for the comprehensive examination may be obtained from the individual departments.

Advisement and Registration

At the time of admission to graduate study, the degree-program student is assigned a faculty advisor according to his or her program of study. The advisor should approve the student's overall program and sign the necessary registration and program forms. The student should consult the advisor regularly to discuss the progress of his or her studies.

As the time for the final comprehensive examination, thesis, or project draws near, the student is directed by a graduate committee of at least three members, representing the student's major and related fields of study. The committee is appointed by the chairperson of the major department. One member of the committee is named as the student's major professor. In addition to advising the student on matters pertaining to the program of study, the committee supervises the preparation of the thesis or research project and administers the final written or oral comprehensive examination.

All graduate students are encouraged to pre-register during the time periods listed in the college calendar. Pre-registration greatly facilitates the formal registration process and helps to insure that the student secures the schedule desired. A service charge of \$30 is imposed for late registration.

Completion of a Degree Program

The application for graduation (Application for Degree) should be filed with the Office of the Registrar four months before the expected completion of the degree.

When a graduate degree program is completed, and the necessary fees paid, a student should request his/her department to recommend to the appropriate dean the approval for the award of the degree. Degrees are awarded in May, August, and December.

The potential degree candidate list is prepared in March and it is the student's and advisor's joint responsibility to see that all eligible persons are named on this list. Students completing degrees in December will have their degrees formally conferred at the following May commencement.

Residence Credit

Students accepted in graduate degree programs must complete at least 15 semester hours of residence credit. Residence credit is defined as credit granted by the College at Fredonia for course work taught by College at Fredonia faculty or other staff approved by the appropriate college officials, whether on or off campus.

Transfer of Credit

For credit to be accepted from another institution, it must form a related part of the student's total graduate program. Students are advised to secure prior approval before registering for credit courses at other colleges or universities. The request for such approval must include catalog number and title, and be accompanied by a description of each course proposed for transfer credit. Credit will be given only for courses in which the student earns grades of A or B. Transfer credit may not be included in the computation of the graduate student's average. No more than 15 semester hours of credit with permission from the department chairperson and the appropriate dean will be transferred to a degree program. Courses transferred into a degree program cannot be more than five years old by the time the degree requirements are completed, unless an extension of time has been granted.

Certification

Master's degree programs leading to permanent certification to teach in the public schools of New York State are offered in the fields of Biology, Chemistry, Elementary Education, English, Mathematics, Music Education, and Speech and Hearing Handicapped. A post-master's program leading to an Advanced Certificate and permanent certification is offered in school administration and supervision. A master's degree program offered in Reading will lead to provisional certification.

The Application for Certification should be filed with the Office of the Registrar four months before the expected completion of requirements.

The general requirements for a permanent certificate as set forth by the State Education Department are the completion of the baccalaureate degree, including the requirements for provisional certification, completion of an approved master's degree, and a minimum of two years of full-time elementary and/or secondary service in the candidate's area of provisional certification.

As a result of increasing enrollment, the Department of Education within the Division of Educational

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Studies has declared a moratorium on entrance for non-degree certification students in elementary and secondary education. The only exception to this moratorium is in music certification by special permission from the School of Music.

Any questions or concerns dealing with the process of acquiring certification in these fields of study should be directed to either the Chairperson of the Department of Education or the Dean for Educational Studies.

Academic Credit and Course Load

The unit of academic credit is the semester hour, which normally represents one hour of lecture or recitation each week per semester. Seminars, research courses, and laboratories bear academic credit appropriate to the work expected of the student in the course.

The maximum course load for a full-time graduate student is 15 hours per semester during the academic year and 6 semester hours in each summer session. Students employed full-time may not carry more than 6 hours per semester during the academic year. Graduate assistants normally carry a course load of from 6 to 9 semester hours during the fall and spring sessions and 3 to 4 hours during a summer session.

Upon recommendation of the chairperson of a student's department and approval of the appropriate dean, work experience directly related to the student's academic program may be given academic credit via the appropriate departmental Independent Study course number subject to the requirements for independent study in the department, including approval *prior* to the work experience except in unusual circumstances. No more than 6 credit hours of such work may be applied to the fulfillment of the requirements for a graduate program.

Graduate Course Numbers

Courses numbered 500-599 are graduate courses also open to qualified undergraduates.

Courses numbered 600-699 are graduate courses open to graduate students only.

Although all graduate programs are normally composed of courses from these levels, under exceptional circumstances up to 6 hours of 300- or 400-level courses outside the major area of specialization may be included. This action requires the advisor's recommendation, which must be approved by the chairperson of the department in which the student is majoring and by the appropriate dean prior to the student's enrollment in the course. Undergraduate

courses taken in the major area of specialization may not receive graduate credit.

Qualified undergraduates may apply to enroll in a limited number of 500-level graduate courses, either for undergraduate or graduate credit. Qualifications and procedures may be found in the *Undergraduate Catalog*.

Full and Part-time Status

A graduate student enrolled in at least 12 credit hours of course work is considered a full-time student. A graduate assistant registered for at least 6 credit hours of course work is considered a full-time student.

Grading System

All courses taken for graduate credit are evaluated by the letter grades A, A-, B+, B, B-, C+, C, C-, D, E (failure), S (satisfactory), U (unsatisfactory), I (*incomplete*), and X (continuing enrollment). D and E grades do not carry credit toward a master's degree but are included in the cumulative average. The S grade (satisfactory) is reserved for courses which are not readily evaluated by the usual letter designations. Any course in which S or U (unsatisfactory) grades are used would be so designated by the department when offered and, in the case of Special Topics courses, in the *Course Offerings Bulletin*. S grades carry no quality points and hours earned with an S grade are not included in figuring the semester or cumulative average. Hours failed U are added into the total hours for the quality point average. A maximum of 6 hours credit with grades of S may apply to the requirements for the master's degree. Each semester hour of A carries four quality points; B, three quality points; C, two quality points; and D, one quality point. Incomplete must be removed before the end of the succeeding semester; otherwise the I becomes an E on the permanent record. 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. The responsibility for finishing incomplete work rests with the student. Graduate students may not exercise the course-repeat option to remove poor grades from their records.

Schedule Changes

Changes in student class schedules must be filed in the Office of the Registrar within the period prescribed by that office. As class schedule changes are processed, students receive copies which should be retained as a matter of personal record.

Students may drop courses through the first week of the semester by obtaining the necessary form and submitting it to the Office of the Registrar. Those

courses dropped will be removed from the student's permanent record.

A fee of \$15 will be assessed for each course added after the third week of classes. This includes transactions involving a switch from one section to another.

Withdrawal

Beginning with the second week to the seventh full week of the semester, a student may withdraw from a course by having the instructor assign a grade of "WP" if the student is passing at that time, "WE" if failing, or "WCC" 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.

Exact dates for the drop and withdrawal period are given in the college calendar and in the appropriate *Course Offerings Bulletin* and apply to all full-semester courses.

The college reserves the right to require any student who is not maintaining minimum academic standards or making reasonably satisfactory progress to withdraw.

Student Appeals of Grades

A student who feels that a course grade or other 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 appeal to the chairperson of the department.
3. If the chairperson decides that the student's case has merit, he or she appoints an *ad hoc* committee composed of two members of the faculty in the department, other than the faculty member involved, and one student who is a major in the department.
4. The committee reviews the case, interviews the student and the instructor separately, and reaches a judgment by majority vote. This judgment is communicated to the chairperson, who in turn reports it to the student and the instructor.
5. If a change of grade is recommended by the committee, the instructor may initiate a change, or the committee's recommendation is forwarded to the appropriate dean and the Vice-President for Academic Affairs for their consideration. The Vice President for Academic Affairs may modify the grade if the committee so recommends.

Plagiarism

To plagiarize is "to steal and pass off as one's own the ideas or words of another" (*Webster's Seventh New Collegiate Dictionary*). Examples of plagiarism include presenting the ideas of another in one's own words without crediting the source, copying sentences, paragraphs, or pages from a source without explicit reference to the pages from which the words were taken, and, of course, presenting another's entire work as one's own. Students who are not certain whether a particular practice may be considered plagiaristic should consult the instructor for whom he/she is writing the paper, exercise, or examination. The College at Fredonia strongly condemns plagiarism and takes severe action against those who plagiarize. For procedures, see page 198 of the *Undergraduate Catalog*.

Confidential Records

All official records of the college, including those in the Graduate Studies Office, the Registrar's Office, the Office of Student Affairs, and the Career Development Office are considered confidential and may be released only with the written consent of the student or upon the formal request of a duly authorized legal authority. Normally, the college will disclose whether or not an individual is now or has been enrolled as a student at the college. For more detailed information about confidential records as defined by the Family Educational Rights and Privacy Act of 1974, see page 202 of the *Undergraduate Catalog*.

Academic Policy and Procedures in Regard to Students with Disabilities

The College at Fredonia welcomes the federal law requiring colleges to make reasonable accommodations for the otherwise qualified students they admit, including learning disabled students. It is college policy that such students fulfill the same degree and program requirements as all other students, but that they be given all reasonable help in doing so. Such help may include, but is not limited to, scheduled tutoring, special counseling, extended time for examinations, permission to tape lectures, readers or scribes for tests, and other assistance.

It is the responsibility of the student to identify him/herself as disabled upon entrance to the college, by notifying the Coordinator of Disabled Student Support Services. The student and coordinator will discuss the student's problems, 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 appoint-

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ments, 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.

Financial Aid

Graduate students may be eligible for the following forms of financial aid. Application is made for federal aid by completing a Free Application for Federal Student Aid (FAFSA) and for state aid by completing a New York State TAP application.

Tuition Assistance Program (TAP): To qualify for Tuition Assistance, graduate students must be legal residents of New York State for at least one year, be in full-time attendance (12 credit hours per semester), and be enrolled in a program leading to a degree. The amount of tuition award is based on the net state taxable family income.

Reauthorization of the Higher Education Act signed into law on July 23, 1992 revised the education loan programs in many ways.

The *Federal Stafford Student Loan-Program* consists of the *Subsidized Stafford Loan* and the *Unsubsidized Stafford Loan*. Applicants for either program first complete the Free Application for Federal Student Aid (FAFSA). A student must be in attendance or accepted as at least a half-time student (6 credit hours per semester) and must be either a U.S. citizen or permanent resident of the U.S.

Following completion of the FAFSA, the student must complete a loan application and submit it to the financial aid office for certification of enrollment

status, cost of education, other financial aid, expected family contribution (where applicable) and determination of loan amount according to federal regulation.

The primary differences between *Subsidized* and *Unsubsidized Stafford Loans*:

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

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

The Subsidized and Unsubsidized Stafford Loans are similar in the following ways:

1. Variable Interest Rate - Treasury Bill plus 3.1 percent with an 8.25 percent cap for new borrowers after October 1, 1992.

2. Fixed Interest Rate - 8 percent up to fifth year of repayment then switching to 10 percent at the start of the fifth year of repayment for borrowers prior to Oct. 1, 1992,

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

Annual maximums for Subsidized and Unsubsidized Stafford Loans combined:

\$2,625 for freshmen

\$3,590 for sophomores

\$5,500 for juniors

\$5,500 for seniors

\$18,500 for graduate students

Aggregate limits:

\$23,000 for undergraduate study

\$65,000 for undergraduate and graduate combined.

Check Disbursement: Loan approvals are sent in two separate disbursements by the lender to the college and are made copayable to the college and to the student according to federal regulation. The first disbursement normally arrives at the Office of Student Accounts 30 to 45 days after the application leaves the financial aid office. The second disbursement is made at the midpoint of the loan period (for the majority of students this is in time for spring semester).

Satisfactory Academic Progress

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 Office of Financial Aid at the College at Fredonia evaluates

student aid recipient progress according to *state requirements* for TAP at the completion of each semester. The Office of Financial Aid evaluates progress according to *federal requirements* for Stafford and Parent loans at the completion of the academic year. Students should refer to the chart below.

Before Being Certified For This Payment	1	2	3	4	5	6	7	8
Percentage Of Attempted Hours That Must Be Completed With A Passing/Failing Grade	0	100%	100%	100%	100%	100%	100%	100%
A Student Must Have Accrued At Least This Many Credits	0	6	12	21	30	45	60	75
With At Least This Grade Point Average	0	2.00	2.50	2.75	3.00	3.00	3.00	3.00

Students should be aware that course repeats do *not* count as a completion in determining Satisfactory Academic Progress. (Example: one year ago a student received a failing grade for a course and this current semester repeated the course. To meet progress standards, the student must complete 12 credit hours during the current semester in addition to the repeated course credit hours.)

Notification Procedure: The Office of Financial Aid will notify the student between two and four weeks after the conclusion of each 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 waiver to reinstate state aid (TAP) is available *only once* during graduate study. A request to reinstate federal aid *may* be granted *only* if exceptional circumstances can be documented. Waivers and reinstatement of aid are *not* automatic. They are approved by the Office of Student Affairs and the Director of Financial Aid *only* if in the best interest of the student and *only* if unusual circumstances (i.e. family illness or death, personal illness, personal emotional disturbances, change(s) in educational objective) prevented the student from meeting the expected criteria.

Graduate Opportunity Tuition Waiver: The Graduate Opportunity Waiver Program provides a full waiver of tuition to former EOP, SEEK, or HEOP students who are accepted or enrolled as full-time students in a graduate degree program. To apply, students should submit proof that they were enrolled as undergraduates through one of the special admission programs named. Contact any EOP or HEOP office for information.

Vocational and "Educational Service A for Individuals with Disabilities (VESID): The State of New York, through the Division of Vocational Rehabilitation, provides financial assistance for those students who qualify under prescribed conditions. For additional information contact the nearest Rehabilitation Office.

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, Office of Veterans' Affairs (3176 Mason Hall, 716-673-3423) to complete appropriate forms. Students are urged to begin their VA paperwork before the beginning of the school term in order to hasten processing. To further facilitate the start of benefits, the veteran, or the children, spouses, and/or survivors of veterans whose deaths or permanent total disabilities were service-connected, should present pertinent data, such as the service number, Social Security number, dates of service, discharging papers, and any other VA claim information.

Assistantships /Fellowships

Assistantships: Graduate, research, and teaching assistantships are available to highly qualified graduate students in many academic departments. Graduate assistants normally carry a 9 hour course load and perform duties in laboratories, lecture halls, and classrooms. The stipends for assistantships are generally \$5,500 for the academic year in addition to waiver of tuition in accordance with the policies and procedures established by the Board of Trustees.

Applicants for academic assistantships should apply directly to the chairperson of the department in which they expect to do their graduate work.

Minority Graduate Fellowship Program: This is a competitive program which provides underrepresented minority graduate students with a stipend to enhance their ability to complete their graduate studies. To be eligible, applicants must be, (1) U.S. citizens or have permanent resident status; and (2) members of one of the following groups: Native American Indians, African Americans, or Hispanic Americans. In 1993-94, these fellowships carried stipends of \$10,000 per year. In addition, special Graduate EOP Tuition

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Scholarships are available to cover tuition costs for graduates of Educational Opportunity/Higher Educational Opportunity programs. (See Graduate Opportunity Tuition Waiver, page 11.) For details, please contact the Office of Graduate Education, (716) 673-3449.

* Graduate Tuition And Fees

Tuition

Full-time, per semester:	
New York State Resident	\$2,000
Out-of-State Resident	\$3,658
Part-time, per credit hour:	
New York State Resident	\$168
Out-of-State Resident	\$308

Note: The above rates are for degree students. In most cases, these rates also apply to non-degree students. However, part-time non-degree students are charged by course level, i.e., \$105 or \$274 per undergraduate-level credit hour and \$168 or \$308 per graduate-level credit hour.

Fees

College Fee:	
Full-time student	\$12.50 per semester
Part-time student	\$0.85 per credit hour
Student Activity Fee:	
Full-time student	\$72 per semester
Part-time student	\$4.80 per credit hour
Health Center Fee	
Full-time student	\$75 per semester
Part-time student	\$5.00 per credit hour

Exception: Students interning or student teaching for the entire semester at a location outside a 30-mile map radius from Fredonia may pay a reduced activity fee of \$36.00.

All fees and rates are subject to change.

Food Service

College policy requires all dormitory residents to subscribe to a food, service meal plan unless they are residents of Disney and Eisenhower on-campus apartments. More information can be obtained through the FSA office in Gregory Hall.

ID Cards

A college ID card is required of all enrolled College at Fredonia students. These cards are issued at no

charge by the FSA office when a student begins his/her studies at Fredonia and are revalidated each year. In addition to being a required form of identification on campus, they are also the official card used for all meal plans. A service charge is assessed for lost cards.

Health Insurance

All students are strongly urged to take Student Health Insurance unless covered by comparable insurance. The health insurance covers a major portion of hospitalization costs not provided through the Student Health Center or the mandatory health fee. For further information, contact the Office of Student Affairs.

Health Center Fee

This mandatory fee is used to enhance the delivery of health services to all students, and supplements the existing health care program on campus.

Miscellaneous Fees, Fines or Deposits

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

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 (5) weeks prior to the start of the semester. To retain the pre-selected courses, a student must send in the required payment prior to the Mail Registration Deadline Date. Failure to make payment by the deadline date will:

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

Students are billed for each semester individually. The college bill lists the following mandatory charges:

Tuition, College Fee, Health Center Fee, and Student Activity Fee. Optional charges for Dormitory Room Rental, Dormitory Damage Deposit and Food Service may also be included on the bill. A deduction from the total billed amount is made for the Advance 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 (formerly GSL)
- Veteran's benefits
- Private Scholarships (only when they are payable directly to the college)
- Academic Management Services [AMS]

Payment Requirements and Distribution of Financial Aid

Full payment less approved, deferrable financial aid and prepayments must be made in order to complete Mail Registration. Cash, personal checks, money orders, VISA, Master Card and Discover are all acceptable forms of payment. 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 late fee 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) awards 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 Office of Student Accounts are mailed to home addresses.

Failure To Pay College Charges

Due to changes in a student's registration status, dormitory residency, food service selection or a reduction in financial aid, the college Office of Student Accounts will bill students monthly throughout the semester. Students who fail to make timely payments will be assessed a \$30 Late Payment fee 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. Students whose names appear on the "hold" list will not receive grades at the end of a semester, receive their diploma at graduation, be permitted to register for additional semesters at the College at Fredonia, or receive a copy of their college transcript.

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

State University Refund Policies

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 the approval of the College President or his/her designee.

Tuition - A student withdrawing during the semester is eligible for the following tuition refunds:

100 percent for withdrawal during the first week of classes;

70 percent for withdrawal during the second week of classes;

50 percent for withdrawal during the third week of classes;

30 percent for withdrawal during the fourth week of classes;

0 percent for withdrawal beyond the fourth week of classes.

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

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

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

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Residence Hall Room Rental - Once a student has registered for and occupied a room in a college-operated residence hall, no refund may be made except in cases of withdrawal beyond the control of the student and with the approval of the College President and 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 \$150 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.

GENERAL INFORMATION

Graduate students may attend all campus activities including special lectures and concerts. The Student Activity Fee covers the admission charge to many of these functions. The facilities of the Campus Center and of the health, physical education, athletics, and dance department are available to graduate students.

Hours when each facility is open are published separately.

The College

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

U.S. News and World Report ranked Fredonia highly in its 1995 edition of *America's Best Colleges* among northern colleges and universities, and in the most recent Student Opinion Survey administered throughout SUNY by the American College Testing service, current students rated Fredonia the highest of the participating university colleges in several key areas. Ranked first for student satisfaction were classroom facilities, study areas, the general condition of buildings and grounds, cultural arts programs, and opportunities for personal involvement. Also rated highly were new student orientation services, campus tutoring services, the condition of residence halls, residence hall services and programs, personal

counseling services, concern for students and individuals, and personal security/safety on campus.

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

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

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

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

The Community

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

The Chautauqua County area has a number of attractions available to its residents and visitors year-round. Lake Erie offers opportunities for swimming and boating during the summer, and nearby ski

centers beckon during the winter months. Nationally-known Chautauqua Institution provides a wealth of plays, operas, concerts, and lectures during the summer months, which along with cultural events at the College at Fredonia sustain a wonderful atmosphere of creativity throughout the seasons.

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

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

The Campus

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

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

The **Campus Center**, a circular building appropriately situated at the center of campus life, houses the offices of Student Activities and the Student Association, and several major student organizations and publications. It also contains a variety of dining options, the campus bookstore and convenience store, meeting, activity and recreation spaces, a commuter lounge, the campus information center and the Central Box Office. **Dods Hall**, one of two athletic facilities, contains classrooms, gymnasias, a swimming pool, weight room, dance studio, and racquetball

courts. Adjacent to this building is **Steele Hall**, which contains an indoor ice skating rink and track/basketball arena.

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

LoGrasso Hall is the home of the Student Health Center, the Counseling Center, Internship Programs, and the office of Lifelong Learning, International Programs, and Economic Research and Development. **McEwen Hall** includes lecture halls, classrooms, a television studio and the student radio station, WCVF. **Reed Library**, designed by I.M. Pei and named in honor of Daniel A. Reed of Sheridan, contains nearly 400,000 volumes as well as music scores, recordings, other media and special collections. A library addition and renovation project was completed in 1994.

Maytum Hall is the home of administrative and business offices as well as the Office of the Registrar and Computing Services.

Fenton Hall, named in honor of Reuben Fenton, governor of New York State from 1865-1868, former congressman and U.S. Senator, who attended the Fredonia Academy, is the main humanities and mathematics and computer science office and classroom building. The College President's office is also located in this building. **Jewett Hall** and **Houghton Hall** are the natural and physical sciences buildings containing classrooms and laboratories, and offices for the departments of Biology, Chemistry, Geosciences and Physics. Thompson Hall, the largest academic structure on campus, was opened in the summer of 1973. In addition to the education and social science departments, the Division of Educational Studies and Grants Administration/Research Services office, the Reading Center, the Henry C. Youngerman Center for Communication Disorders, and Creative Support Services including the Media Center, are housed in this building.

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

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

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Hours when academic buildings are open are published separately.

Career Development Office

The Career Development Office offers a number of interrelated services to assist graduate students in investigating various career options, and conducting a job search. Office hours include one evening a week and selected Saturday mornings.

Outline of Services

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

Workshops. The following workshops are offered on a regular basis:

For a schedule, students should visit the office or call (716) 673-3327.

- Writing Your Resume
- Summer Jobs and Internships
- Getting Started with Your Job Search
- Applying to Graduate and Professional School
- Effective Interviewing

Computer Programs. The office supports a number of software packages for students, including a computer-assisted career decision-making program that identifies possible majors and occupations based on personal characteristics, and provides information about each occupation. Other programs include the Federal Occupational Career Information System, Resume Expert Plus, and preparation for both the GRE and GMAT.

Drop-In Hours. Two afternoons each week are designated when a counselor is available on a first come, first served walk-in basis. Similarly, Resume Review hours to critique rough drafts are regularly scheduled.

Videotaped "Practice" Interviews. A professional staff member will interview students. The interview will be videotaped, played back and discussed, with suggestions made for improvement.

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

Electronic Resume and Referral Service. Using a software package called Resume Expert Plus, stu-

dents can learn how to write a resume, write one on disk, and get a laser printed copy. They can also use the software to participate in electronic recruitment networks, as well as the Career Development Office electronic referral database. Candidates can also choose to provide a paper copy of their resume instead of using the software.

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

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

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

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

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

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

Veterans' Affairs

The Office of Veterans' Affairs, located in 3176 Mason Hall, is staffed by the coordinator and Veteran work-study students 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 Office of Veterans' Affairs. The coordinator is in liaison with the Regional Office in Buffalo for those situations which might need special attention.

Auto Use

Graduate students who operate automobiles on campus are required to register them with the Office of Student Accounts in Maytum Hall during Registration week. Parking permits, valid during the academic year, will be issued to eligible students upon payment of a fee. Fees are announced prior to the start of each year.

Housing/Residence Life

The Office of Residence Life is located in Gregory Hall and is readily available to accommodate graduate students. The residence halls are located close to the academic facilities and provide excellent housing accommodations. Special interest areas have been established and students may inquire at the Office of Residence Life for suitable assignments.

A limited file of off-campus housing facilities is maintained in the housing office.

For further information, students should write directly to the Office of Residence Life, State University of New York College at Fredonia, Fredonia, NY 14063.

Note: Graduate residence director positions are often available. Please contact the Director of Residence Life for more information.

SUPPORT SERVICES

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

Computing Services

The college provides students and faculty with extensive computing facilities in both time-sharing and batch modes. Access to these facilities is made from terminals which are located in McEwen Hall and in many other locations on campus, including residence halls. More than 300 terminals are connected to the college's large scale Unisys A12T computer system which is housed in Maytum Hall. Approximately 100 of these are provided for general academic use. In addition, the system may be accessed from other locations by telephone. Numerous microcomputers are used to supplement the main system, and are available at various locations. The center also houses the dedicated computer system used to provide automation services for Reed Library. Access to the library's on-line catalog is provided from all terminals connected to the A12T as well as from catalog terminals in the library.

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

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

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

Creative Support Services

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

The following support services are available:

- . Visual Production (photography/graphic arts)
- . Media Services/Media Center
- Engineering

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

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 significant are an addition to the library and renovation of the main building which were completed in 1994. These changes provide more space for library materials as well as state-of-the-art study areas for faculty and students. The library has installed a computerized system that allows students and faculty to search the library catalog from terminals in the library as well as from other locations on and off campus. Another technological advance is found in numerous computerized indexes and data bases. Together with the on-line catalog these systems have radically improved the way that patrons of the library gain access to information.

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

Reed Library is open at the following times during the academic year: Monday through Thursday, 8:30

a.m. to 11 p.m.; Friday, 8:30 a.m. to 5 p.m.; Saturday, 1 to 6 p.m.; and Sunday, 1 to 11 p.m. Hours are extended during the exam period at the end of each semester, and are reduced during intersessions and summer school. For more information on Reed Library and its services call (716) 673-3222.

Henry C. Youngerman Center for Communication Disorders

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

The Reading Center

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

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

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

The Learning Center

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

Unisys microcomputers with programs in BASIC programming, social science analysis, calculus, algebra, and word processing are part of the center's resources. Also available are terminals to the Unisys mainframe computer which can be used by students when they are not required for tutoring, as well as terminals for a minicomputer in the Department of Mathematics and Computer Science. For more information, visit The Learning Center in Hendrix Hall.

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

The Learning Center provides language support services for English as a second language (ESL) students.

The Fredonia College Foundation

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

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

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

Degrees Offered

Master of Arts	HEGIS Code
English	1501
Mathematics	1701
Special Studies	4901
Master of Music	
Music Education K-12	0832
Music Performance	1004
Music Theory - Composition	1004.10
Master of Science	
Biology	0401
Chemistry	1905

Special Studies	4901
Speech Pathology	1220
Master of Science in Education	
Biology 7-12	0401.01
Chemistry 7-12	1905.01
Elementary Education N-6	0802
English 7-12	1501.01
Mathematics 7-12	1701.01
Reading Teacher	0830
Speech & Hearing Handicapped	0815
Advanced Certificate	
School Administrator & Supervisor	0828

Curriculum Codes

Graduate Status is indicated by the first number of a three digit code as follows:

- 5XX Accepted in a Provisional Certification program
- 6XX Accepted in a degree program
- 7XX Conditionally accepted in a degree program
- 9XX Accepted as a non-degree student

The last two digits refer to the area of specialization as follows:

- X00 Non-Degree
- † X20 Special Studies (M.A.)
- † X30 Special Studies (M. S.)
- T*X40 Reading
- l-*x44 El. Ed. - Learning and Behavioral Disorders
- †*X45 El. Ed. - Foundations of Education
- †*X52 Psychological Foundations
- †*X53 El. Ed. - Early Childhood
- j-*x54 El. Ed. - Curriculum and Instruction
- x55 El. Ed. - Unclassified
- †*X57 Measurement and Research
- †*X58 Music Education
- *X60 School Administrator/Supervisor
- †*X64 Speech Pathology
- †*X65 Speech and Hearing Handicapped
- †*X66 Sec. Ed. - English
- †*X72 Sec. Ed. - Biology
- †*X73 Sec. Ed. - Chemistry
- †*X74 Sec. Ed. - Mathematics
- t x79 Music Theory-Composition
- † X81 L.A.-English
- † X84 Music Performance
- † X92 L.A.-Mathematics
- † *x93 L.A.-Biology
- † x94 L.A.-Chemistry

* Certification program
Master's program

GRADUATE STUDIES

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

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

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

ART

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

THE HISTORY AND THEORY OF ART

AR 541-642. Independent projects A in Art History

Independent research in specific area of art history, stressing depth of inquiry. Subject to study chosen in consultation with department.

1-3 hours credit each semester

AR 545. Seminar in Art History D and Criticism

Readings and discussions, reportage and criticism, including role of critic, influence of media, and formation of public attitudes.

*Prerequisite: permission of department.
 3 hours credit*

STUDIO COURSES—THE PRACTICE OF ART

Note: The following are based on substantial experience in the field under study. Art department approval should be obtained prior to enrollment. Some of the studio courses listed below require lab fees.

AR 551-556. Independent Studio A Projects

Independent studio work in drawing, painting, sculpture, printmaking, ceramics, or combination of media. Sound background in area of investigation required. Student must present an acceptable plan for proposed project.

*Prerequisite: permission of department.
 1-3 hours credit*

BIOLOGY

Office: 203 Jewett Hall
Bruce L. Tomlinson,
Chairperson

The Department of Biology offers the Master of Science and the Master of Science in Education degrees in Biology. The department is well-equipped, with instrumentation available for almost all types of biological research, including recombinant gene technology. Teaching Assistantships and Graduate Internships are available. Faculty research interests include: immunology, developmental biology, microbiology, microbial genetics, plant anatomy, cytology, molecular biology, animal behavior, evolutionary ecology, physiological ecology of aquatic plants and animals, animal physiology, limnology, cell membrane biochemistry and hormone interaction, and algal physiology. Students completing the M.S. degree at Fredonia often go on to Ph.D. programs at major research universities or obtain positions in industry or government.

Master of Science

Departmental requirements for admission to program without deficiencies:

An undergraduate major in Biology or related science with requisite evidence of training and motivation necessary to succeed in graduate study, Supporting science background to include physics, calculus, and organic chemistry. Prospective students should forward Graduate Record

Exam scores along with their application for admission to the program.

<i>Thesis Option</i>	<i>Hrs.</i>
1. A minimum of 30 semester hours, including:	
Seminar (three semesters)	3
Thesis Research	6
Appropriate course work	at least 21
2. Written Thesis	
3. Final Comprehensive Examination	
Total	30

<i>Non-Thesis Option</i>	<i>Hrs.</i>
1. A minimum of 30 semester hours, including:	
Seminar (three semesters)	3
Biology courses	18
Electives (any department)	9
Final comprehensive Exam	
Total	36

Appropriate courses are chosen after consultation with the student's thesis advisor and graduate committee. The Department of Biology strongly recommends broad training in biology with some concentration in either biochemistry, physiology, or ecology. Specific courses chosen will depend on the student's background and interests. BI 690-691 may not "be used toward the Non-Thesis Option.

Master of Science in Education

Departmental requirements for admission to program without deficiencies:

An undergraduate major in Biology or related science with requisite evidence of training and motivation necessary to succeed in graduate study. Supporting science background to include physics, calculus, and organic chemistry. Prospective students should forward Graduate Record Exam scores along with their application for admission to the program.

Provisional certification to teach biology and general science in the secondary schools of New

York State, or equivalent preparation.

Program Requirements *Hrs.*

A minimum of 30 semester hours of graduate-level courses including:

- | | | | | | |
|--|--|-------------|--|----|--|
| 1. General Requirements | | | | | |
| ED 570 Understanding Educational Research | | 3 | | | |
| One course in psychological, historical, philosophical, or comparative foundations of education | | 3 | | | |
| One course in pedagogy, methodology; or instruction | | 3 | | | |
| 2. Area of Certification | | | | | |
| Eighteen credit hours as follows: | | | | | |
| Fifteen or more hours of 500- and 600-level courses in biology or approved courses in related areas | | at least 15 | | | |
| Seminar, BI 600 or 601 | | 3 | | | |
| 3. Special Project | | 3 | | | |
| Thesis, independent study project, or research project from either professional education or biology | | | | | |
| 4. Final Examination | | | | | |
| A two-part comprehensive examination will be required of each student - an intensive examination written in the areas of specialization, and a written examination covering the professional component of the student's program. | | | | | |
| Total | | | | 30 | |

BI 501. Biochemistry B
 Advanced discussion of biological chemistry; chemistry of carbohydrates, lipids and proteins, and nucleic acids; bioenergetics; the structure and mechanism of enzyme action; protein biosynthesis; molecular genetics; selected topics in immunochemistry, and biochemical endocrinology.
Prerequisite: organic chemistry.
3 hours credit

BI 502. Methods in Biochemistry D
 Theory and laboratory experiments demonstrating the techniques and applications of contemporary biochemistry including electrophoresis, chromatography, centrifugation, radioisotope methods, DNA sequencing, enzymology, spectrophotometry and gas chromatograph-.
Prerequisite: BI 501 or permission of instructor.
3 hours credit

BI 504. Nucleic Acids D
 Lectures focus on the structure, synthesis, and function of both DNA and RNA. Emphasis is placed on an advanced presentation of the regulation of DNA replication, transcription, and translation in both prokaryotes and eukaryotes. Lectures also present the techniques currently employed in genetic engineering.
Prerequisites: BI 333 or equivalent, BI 501.
3 hours credit

BI 517. Comparative Animal Physiology C
 How animals maintain homeostasis in a non-homeostatic world. After a general introduction to mechanisms of cellular regulation and energetic, discussion will include 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 520. 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 522. Physiological Ecology C
 Reading and discussion of primary literature relating to physiological and ecosystem ecology. Topics include resource acquisition, energetic, nutrient cycling, and energy flow.
Prerequisite: BI 330.
3 hours credit

BI 524. Aquatic Biology C
 The course covers the classification and biology of major groups of organisms found in fresh water, 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 528. Photomicrography D
 Principles of the major types of illumination used in microscopy: bright field, dark field, phase contrast, polarized light,

and interference. Other topics include: filtration, Koehler illumination, photographic emulsions, and darkroom technique. Students' grades based on photomicrographs.
3 hours credit

BI 543. Plant Physiology C
 Study of the life processes and responses of plants, including water relations and transport, photosynthesis and general metabolism, mineral and organic nutrition, photoperiodic responses and rhythms, growth and differentiation, and plant relationships with the environment. Laboratory includes problems and exercises in whole plant physiology as well as at the molecular level. The laboratory stresses methods rather than results. Two lectures, one laboratory.
3 hours credit

BI 544. Radiation Biology C
 Lectures on techniques required for application of radioactive isotopes to biological research. Experimental isotope tracer techniques deal with *in vitro* and *in vivo* labeling as well as autoradiographic studies. Variety of living systems used.
3 hours credit

BI 546. Evolution D
 Consideration of the theoretical framework of evolutionary biology and the mechanisms of evolution. Special topics include microevolution, macroevolution and convolution.
3 hours credit

BI 550-551. Current Concepts in A Biology
 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, Molecular Genetics, Cell and Hybridoma Culture, Enzymes, Ethology, Hormone Mechanisms, Bioenergetics, Microbial Genetics, Field Biology, and Advanced Developmental Biology.
1-3 hours credit each semester

BI 555. Histotechnology D
 Intended to develop skills in fixing, dehydrating, imbedding, sectioning, and staining of plant and animal tissues. Students' grades based on finished slides.
3 hours credit

BI 557. Biostatistics C
 Statistical tests frequently used in the biological sciences. Emphasis is placed on understanding what statistics can and can-

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not do, the meaning of a statistical test, and how to choose an appropriate statistical test. Uses of micro-computer and main-frame statistical packages (SPSS or MINITAB) are also considered.

3 hours credit

BI 564. Mammalogy D

Consideration of taxonomy, ecology, and physiology of mammals; world fauna examined, although emphasis on local species. Field population studies, collection and preservation of specimens, and studies in physiological adaptations of mammals.

3 hours credit

BI 572. Aquatic Botany D

A discussion of the taxonomy, physiology, and ecology of the aquatic algae, fun@, lower, and higher plants. The course will concentrate on species endemic to western New York and will include field work and laboratory identification of local species.

Prerequisite: permission of instructor.
3 hours credit

BI 600-601. Seminar A

Presentation of detailed study of topic of current interest in the biological literature. Attendance and one seminar presentation required for three semesters of all candidates for the master's degree. Students completing thesis research must present their results orally prior to their scheduled thesis defense.

1 hour credit each semester

BI 611. Cell Regulation D

Integrated study of regulation at various levels within the cell. Molecular control of cellular activity and its interconnection with biochemistry including regulation of enzyme activity, nucleic acid and protein biosynthesis, metabolic control by hormones, and membrane regulatory functions.

Prerequisite or corequisite: BI 501.
3 hours credit

BI 646. Reproductive Physiology D

Treatment of reproductive mechanisms in higher vertebrates; particular attention to mammals. Topics include biology of sex, structure-function relationship in male and female reproductive systems, gametogenesis, gonadal steroids, nongonadal endocrine control mechanisms, cyclic reproductive phenomena, insemination and fertilization, viviparity, pregnancy, parturition and lactation, fertility and sterility, and effects of environment and nutrition on reproductive processes.

Prerequisite: BI 501.
3 hours credit

BI 650-659. Special Topics in Biology D

Comprehensive reviews of current state of biological investigation for advanced graduate students. Analysis of frontiers of scientific advancement in molecular biology, quantitative ecology, and physiology.

3 hours credit each semester

BI 690,691. Thesis Research A
3 hours credit each semester

CHEMISTRY

Office: 207 Houghton Hall

James R. Bowser,
Chairperson

Master of Science

Departmental requirements for admission to program without deficiencies:

An undergraduate major in Chemistry with courses equivalent to those required for a Bachelor of Science degree in Chemistry at Fredonia.

Program Requirements Hrs.

- | | |
|--|-----------|
| 1. A-minimum- of 30 semester hours, including:
Graduate-level courses in chemistry, which can include up to 12 credit hours in courses from related fields, e.g., biology, geosciences, mathematics, and physics (approved in advance by the departmental Graduate Study Committee) | 18-24 |
| 2. Research | 6-12 |
| 3. Seminar (One seminar is expected) | |
| 4. Evidence, by proficiency examination or completion of study approved in advance by the departmental Graduate Study Committee, of competence in an acceptable foreign language or computer language. Course work used to satisfy this requirement does not count toward the 30 required hours. | |
| 5. Written Thesis | |
| 6. Final Comprehensive Examination | |
| Total | 30 |

Master of Science in Education

Departmental requirements for admission to program without deficiencies:

An undergraduate major in Chemistry with courses equivalent to those required for a Bachelor of Science degree in Chemistry at Fredonia.

Provisional certification to teach chemistry in the secondary schools of New York State, or equivalent preparation.

Program Requirements Hrs.

- | | |
|--|-----------|
| A minimum of 30 semester hours of graduate-level courses, including: | |
| i. General Requirements | |
| ED 570 Understanding Educational Research | 3 |
| One course in psychological, historical, philosophical, or comparative foundations of education | 3 |
| One course in pedagogy, methodology, or instruction | 3 |
| 2. Area of Certification | 18 |
| Eighteen hours to be selected under departmental advisement from 500- and 600-level offerings in chemistry and related fields, e.g., biology, geosciences, mathematics, and physics | |
| 3. Special Project | 3 |
| Thesis, independent study project, or research project from either professional education or chemistry | |
| 4. Final Examinations | |
| A two-part comprehensive examination will be required of each student - an intensive examination either oral or written in the areas of specialization, and an oral or written examination covering the professional component of the student's program. | |
| Total | 30 |

CH 511. Physical Organic Chemistry D

Molecular orbital theory, resonance, acid-base theory and mechanisms of organic reactions including unimolecular and bimolecular substitution reactions and intramolecular rearrangements.

Prerequisites: one year organic chemistry,
one year physical chemistry.
3 hours credit

CH 512., Advanced Organic D
Chemistry

The utilization of certain types of reactions for the synthesis of compounds having significance to organic or bioorganic chemistry. Examples include addition/elimination; oxidation/reduction; free radical; carbanionic; pericyclic; and other types of reactions.

Prerequisite: one year organic chemistry.
3 hours credit

CH 515. Applied Spectroscopy D

Detailed studies of the use of modern instrumental methods for the identification of organic and organometallic compounds. Emphasis on mass, nuclear magnetic resonance, infrared, and electronic spectroscopies.

Prerequisite: one year organic chemistry.
3 hours credit

CH 521. Advanced Physical D
Chemistry-Thermodynamics

Application of theory of thermodynamics to chemical systems, including methods of quantum statistics.

Prerequisites: one year physical chemistry,
one year calculus.
3 hours credit

CH 522. Advanced Physical D
Chemistry - Quantum Chemistry

Basic concepts of wave mechanics and the application to topics of interest to chemists.

Prerequisites: one year physical chemistry,
one year calculus, one year physics.
3 hours credit

CH 532. Advanced Analytical D
Chemistry: Chromatographic
Separations

Separation techniques based on differential migration. Gas, thin layer, ion exchange, high performance liquid, permeation chromatographies, and field flow fractionation.

Prerequisites: one year physical chemistry,
one semester instrumental analysis.
3 hours credit

CH 562. Advanced Inorganic B
Chemistry

Advanced discussion of topics of importance to contemporary inorganic and organometallic chemistry, including group theory; acid-base behavior; structure, bonding, and reaction mechanisms of metal complexes; and bio-inorganic chemistry.
3 hours credit

CH 573. Chemistry and the D
Environment

Interrelationships of chemistry with the environment. Topics include water quality and chemistry, waste disposal, atmospheric chemistry, and the chemistry of energy and power production. Class activities will include discussions of technical papers drawn from the contemporary scientific literature and simulation of environmental problems through computer models.
3 hours credit

CH 581. Special Topics in B
Chemistry

Topics of special or current interest offered periodically. Credit and prerequisites vary with nature of course offerings which may include physical inorganic chemistry, organometallic chemistry, spectroscopy, photochemistry, heterocyclic chemistry, synthesis, polymer chemistry, topics in biochemistry, quantum chemistry, computers, or selected topics in chemical education.
1-3 hours credit

CH 690. Independent Study A

Extensive study on advanced level of chemistry not covered in detail in formal courses. Paper or other demonstration of accomplishment required.

Prerequisite: permission of department.
1-3 hours credit

CH 691-694. Research A

Projects in areas of analytical, physical, organic, inorganic, and biochemistry.
1-3 hours credit each semester

Seminar B

Preparation and oral presentation of topics of significant interest from recent chemical literature or thesis research. All graduate students must present two seminars; all full-time graduate students are required to attend seminar each semester. A student's final seminar will be based upon his/her thesis research. Seminar is not required in the M.S. in Education program.

EDUCATION

Office: E268 Thompson Hall

Matthew Ludes,

Chairperson

Lawrence J. Maheady,

Associate Chairperson

The education department offers the following graduate degrees:

- Master of Science in Education: Elementary Education
- Master of Science in Education: Reading Teacher
- Master of Science in Education: Secondary Education *

In addition to these degrees, the department also offers a program leading to the Advanced Certificate in school administration and supervision.

** **Students must** select either a written comprehensive examination or a research project, essay or thesis. Procedures for the comprehensive examination and research (ED 690-691) are available in the department office. Written comprehensive exams will be administered on the first Saturday in March, December, and August.

Graduate courses are also open to special students wishing to extend their knowledge and expertise in areas of particular interest to them.

* offered in cooperation with the respective arts and sciences departments in the following academic subjects: English, mathematics, biology, and chemistry.

** Requirements for graduation are under review and are subject to revision.

Master of Science in Education: Elementary Education

Departmental requirements for admission to program without deficiencies:

Provisional certification to teach elementary education in the public schools of New York State or equivalent preparation.

Program Requirements Hrs,

A minimum of 30 semester hours of graduate level courses, including:

1. General Requirements for All Programs
 - ED 570 Understanding Educational Research 3
 - One course in psychological foundations from:
 - ED 501 Advanced Study: Child Psychology 3
 - ED 502 Psychology of Adolescence
 - ED 503 Evaluation in the Schools
 - ED 504 The Exceptional Learner
 - ED 508 Mainstreaming
 - ED 524 Remediation of Reading Difficulties
 - ED 529 Behavioral Disorders of School Children
 - ED 530 Learning Theories and the Teaching Process
 - ED 562 Infant Development and Education
 - One course in social, historical, legal philosophical, or comparative foundations of education from:
 - ED 531 Philosophy of Education
 - ED 535 School and Society
 - ED 539 Current Issues and Problems in Education
 - ED 545 History of American Education
 - ED 549 Comparative Education
 - ED 626 Public School Law

2. Areas of Concentration 12-15
Twelve to 15 hours to be selected under departmental advisement from one of the following areas:

Curriculum and Instruction:
Required:

- ED 520 Curriculum Framework Theory 6
- ED 525 Curriculum Framework Integration as advised;

plus a combination of curriculum and instruction courses chosen from a broad range of curriculum areas or from a specific area of interest (math, science, social studies, language arts).

Early Childhood Education
Required: Twelve to 15 hours from:

- ED 501 Advanced Study: Child Psychology
- ED 537 Critical Examination of Children's Literature
- ED 561 Contemporary Issues in Parent/Teacher Relationships
- ED 562 Infant Development and Education
- ED 625 Early Childhood Curriculum
- ED 629 Issues, Trends, and Research in Early Childhood Education

Learning and Behavioral Disorders:

Required: Twelve to 15 hours from:

- ED 504 The Exceptional Learner
- ED 506 Foundations of Reading Instruction in the Elementary School
- ED 508 Mainstreaming
- ED 529 Behavioral Disorders of School Children
- ED 530 Learning Theories and the Teaching Process

if such courses have not been taken; as advised:

- ED 503 Evaluation in the Schools
- ED 524 Remediation of Reading Difficulties
- ED 643 Diagnosis and Treatment of Learning Difficulties in Elementary School Mathematics
- SH 500 Language Problems in Children
- SH 530 Communicative Disorders in the Learning Disabled Child

Foundations of Education:

Required: Twelve to 15 hours from:

A combination of foundations courses chosen from social, historical, legal, philosophical, or comparative education:

- ED 531 Philosophy of Education
- ED 535 School and Society
- ED 539 Current Issues and Problems in Education
- ED 545 History of American Education
- ED 549 Comparative Education
- ED 626 Public School Law

Psychological Foundations:

Required: Twelve to 15 hours from:

- ED 501 Advanced Study: Child Psychology
- ED 502 Psychology of Adolescence
- ED 503 Evaluation in the Schools

- ED 504 The Exceptional Learner
- ED 608 Mainstreaming
- ED 529 Behavioral Disorders of School Children
- ED 530 Learning Theories and the Teaching Process
- ED 562 Infant Development and Education

Measurement and Research:
Required: Twelve to 15 hours from:
 ED 503 Evaluation in the Schools
 Or a concentration of courses in the area of psychological foundations or the area of social, historical, philosophical, or comparative education.

- 3. Professional education or courses from any other graduate division of the college, as advised. 3-9
 - 4. Written Comprehensive Examination or ED 690-691 Research 0 3-6
-
- 30

Master of Science in Education: Reading Teacher

Departmental requirements for admission without deficiencies:

Provisional certification to teach in the elementary schools of New York State or' equivalent preparation.

Program Requirements Hrs.

A *minimum* of 30 semester hours of graduate level courses which must include a minimum of 18 hours specifically in reading:

- 1. General Requirements:
 - ED 570 Understanding Educational Research 3
 - One course in psychological foundations from: 3
 - ED 501 Advanced Study: Child Psychology
 - ED 502 Psychology of Adolescence
 - ED 503 Evaluation in the Schools
 - ED 504 The Exceptional Learner
 - ED 508 Mainstreaming
 - ED 529 Behavioral Disorders of School Children
 - ED 530 Learning Theories and the Teaching Process
 - ED 562 Infant Development and Education

- One course in social, historical philosophical, or comparative foundations of education from:
 - ED 531 Philosophy of Education
 - ED 535 School and Society
 - ED 539 Current Issues and Problems in Education
 - ED 545 Comparative Education
 - ED 626 Public School Law
 - ED 630 School-Community Relations

- 2. Reading Concentration 18
 Eighteen hours to be selected under departmental advisement.

- Required:*
- ED 506 Foundations of Reading Instruction in the Elementary School
 - ED 606 Methods in Diagnosis and Treatment of Reading Difficulties
 - ED 607 Practicum in Reading
 - ED 608 Clinical Diagnosis of Reading Disabilities

- As advised:*
- ED 510 Microcomputers as Applied to Reading Instruction
 - ED 511 Activities for Individualized Reading
 - ED 524 Remediation of Reading Difficulties
 - ED 537 Critical Examination of Children's Literature
 - ED 622 Issues, Trends and Research in Reading

- 3. Professional education or course from any other graduate division of the college, as advised 3
 - 4. Written Comprehensive Examination or ED 690-691 Research Project in Reading 0 3-6
-
- Total 30-36

Master of Science in Education: Secondary Education

Admission Requirements:

Completion of arts and sciences departmental requirements for admission to program without deficiencies.

Appropriate provisional certification to teach in the secondary schools

of New York State or equivalent preparation.

Program Requirements Hrs.

A minimum of 30 semester hours of graduate-level courses as follows:

- 1. General Requirement for All Programs (9 semester hours)
 - ED 570 Understanding Educational Research 3

One course in psychological, social, historical, philosophical, or comparative foundations of education from:

- ED 501 Advanced Study: Child Psychology
- ED 502 Psychology of Adolescence
- ED 503 Evaluation in the Schools
- ED 504 The Exceptional Learner
- ED 508 Mainstreaming
- ED 529 Behavioral Disorders of School Children
- ED 530 Learning Theories and the Teaching Process
- ED 531 Philosophy of Education
- ED 535 School and Society
- ED 539 Current Issues and Problems in Education
- ED 545 History of American Education
- ED 549 Comparative Education
- ED 626 Public School Law
- ED 630 School-Community Relations

One course in curriculum and instruction 3

- 2. Area of Certification - Eighteen semester hours from one of the following areas:
 - Biology *
 - Chemistry *
 - English *
 - Mathematics *

- 3. Thesis, independent study project, or research project from either professional education or the academic subject area. * anrVor

- 4. Final Examination
 A two-part comprehensive examination will be required of each student - an intensive examination either oral or written in the areas of specialization, and an oral or written examination covering the professional component of the student's program.

Total 30

* see separate listings under each academic area of concentration.

**Advanced Certificate:
School Administrator
and Supervisor**

The School Administrator/Supervisor program leads to an Advanced Certificate and permanent certification in school administration and supervision. This certificate permits the candidate to assume such roles as principal, assistant principal, supervisor, department chairperson, or program coordinator.

Departmental requirements for admission to program without deficiencies:

Appropriate provisional certification to teach in public schools of New York State.

Completion of a master's degree in an appropriate field.

Three years of satisfactory teaching experience at the elementary or secondary level and a written recommendation from the candidate's chief school officer.

Qualified graduate students may be admitted to course work before admission to the program.

Program Requirements *Hrs.*

1. Completion of the master's degree program in the appropriate field.
2. A minimum of 30 semester hours of graduate-level courses, including:
Three semester hours from educational research, evaluation or statistics, selected under advisement, if such a course has not previously been taken.
3. Course offerings in administration/supervision, such as the following:
ED 614 The School Administrator/ Supervisor 3
ED 616 Supervision I: Theory and Practice 3
ED 617 Supervision II: The Improvement of Instruction 3
ED 620 Public School Finance 3
ED 626 Public School Law 3
Additional course(s) as advised 6-9

Six semester hours from supervised internship and related research paper	6
ED 618 Internship, School Administrator/Supervisor, Elementary or	
ED 619 Internship, School Administrator/Supervisor, Secondary	
4. Thesis, independent study project, or research project from professional education related to the internship	0
5. A comprehensive examination, either oral or written as determined by the advisor, covering the professional component of the student's program.	0
Total	30

Exceptional Child Education: Cooperative Program with the State University of New York College at Buffalo

In cooperation the College at Buffalo, Fredonia offers courses which may be applied toward a graduate degree and certification in the area of special education from the College at Buffalo. Teachers wishing to avail themselves of this option must take the following steps:

1. Apply and be admitted to the regular master's degree program in special education offered by the Exceptional Child Education Department at the College at Buffalo.
2. Consult with an advisor at the College at Buffalo to determine which Fredonia courses may be included in the student's program. These will vary depending upon prior course work and experience. Students should not take any Fredonia courses as part of this program until they have completed this step.
3. Apply for admission as a non-degree student at Fredonia, mentioning the College at Buffalo program.
4. After completing 6 hours of approved course work in the program at either college, and before taking additional courses, apply for candidacy at the College at Buffalo.

The following courses at Fredonia maybe applied toward a degree in special education from the College at Buffalo:

Required or prerequisite courses in exceptional child education:

- ED 503 Evaluation in the Schools
- ED 504 The Exceptional Learner
- ED 529 Behavioral Disorders of School Children

Elective Courses:

- ED 543 Education for the Gifted and Talented
- SH 500 Language Problems in Children
- SH 525 Speech and Hearing Problems in the Classroom

Research Requirements:

- ED 570 Understanding Educational Research
- ED 670 Independent Study
- ED 690 Research

It must be understood that enrollment in Fredonia courses cannot be guaranteed to students in this program. Courses are offered at the sole discretion of the Department of Education at Fredonia.

ED 501. Advanced Study: Child Psychology

Methods for observing and measuring child behavior. Principles of research relating to the study of children. Study of contemporary areas of concern in child development including psychological consequences of marital discord, day care, television, paternal behavior, and family size. 3 hours credit

ED 502. Psychology of Adolescence

Influence of physical, sexual, and social factors upon total personality during adolescence. Relationship to formation of attitudes toward, self and others. Social, emotional, intellectual, and vocational adjustment demanded of youth in contemporary life. 3 hours credit

ED 503. Evaluation in the Schools

Practical applications of evaluation theory in the schools: preparation and use of teacher-made tests; selection, administration, and interpretation of standardized tests; the use of evaluation techniques in

curriculum decisions and in interpersonal relationships.

3 hours credit

ED 504. The Exceptional Learner B

Survey of specific areas of exceptionality including handicapped, gifted, and emotionally disturbed children. Etiology, definition, classification, and educational problems of teaching exceptional children.

3 hours credit

ED 505. The Process of Writing: K-12 D

Examination of the writing process with emphasis on the theoretical and practical issues in the teaching of composition. Details the importance and role of audience, voice, focus, prewriting, conferencing, peer editing, assessment, purpose, and mechanics. Participants write in several modes as part of observation and study of their own composing strategies, including an investigation of the stage or step model of writing.

3 hours credit

ED 506. Foundations of Reading Instruction in the Elementary Schools A

Reading as a developmental process, including mechanics of reading, general and specific comprehensive skills, and reading attitudes. Reading program in the school, including the reading lesson, evaluation, individualization, coordinating total school effort, and current trends in reading instruction.

3 hours credit

ED 507. Group Processes in Education

Implications of individual group relationships for teachers and administrators with respect to more effective teaching, higher student motivation, leadership identification and development, school climate and organizational development.

3 hours credit

ED 508. Mainstreaming B

Introduces teachers to the legal and legislative bases for integrating exceptional learners into regular education programs. Provides information regarding placement options and support services available to integrated students. Practical approaches dealing with teaching and behavior management techniques are emphasized.

3 hours credit

ED 508. Teaching of Thinking D

Study of an overall framework of teaching of, and about thinking and teacher behaviors which create classroom conditions for thinking. Basic approaches to the teach-

ing of thinking skills are explored through various programs, systems and resources currently available.

3 hours credit

ED 510. Microcomputers as Applied to Reading Instruction B

This course is designed to apply existing microcomputer software and hardware to instruction in basic reading skills. Strategies used to evaluate commercially prepared software will also be taught. Teachers will be provided with sufficient skill and knowledge to author instructional materials for both individual students and entire classes.

3 hours credit

ED 511. Activities for Individualized Reading B

Encourages and prepares classroom teachers to teach reading through individualized and learner-oriented activities. Selection, preparation, production, and use of distinctive activities to individualize reading emphasized.

3 hours credit

ED 512. Creative Writing in the D Elementary School

Study of the conditions fostering creative expression, ways of motivating children to write and use language creatively, the teacher's role in creative expression, and the study of prose and poetry forms appropriate for use in the elementary classroom. Directed experiences in writing provided.

3 hours credit

ED 515. Dramatic Experiences in D the Elementary School

Introduces teachers to techniques, methods, and materials of creative dramatic activities in the elementary classroom. Role of dramatics in various curricular areas explored. Directed experiences as leader and participant in a variety of dramatic activities provided.

3 hours credit

ED 520. Curriculum Framework B Theory/Development

Core graduate course for the Curriculum and Instruction master's degree specialization explores the people and changes impacting the history of curriculum in the U.S. Students will develop a usable curriculum/instructional framework following acceptable curriculum development practice.

3 hours credit

ED 522. The Process of Valuing D

Examination of theories of valuing. A variety of instructional approaches, materials, skills, and ways of organizing curricu-

lum to assist students in dealing systematically with values - both their own and the values of society. Strategies are offered for identifying values, clarifying them, detecting inconsistencies, and strengthening values.

3 hours credit

ED 523. LOGO Workshop c

Introduction to programming for children, using LOGO, a computer language. Focuses on the process of invention of "objects-to-think-with" objects, in which there is an intersection of cultural presence and embedded knowledge, as well as the possibility for personal identification.

3 hours credit

ED 524. Remediation of Reading B Difficulties

In-depth preparation in the remediation of specific skill deficiencies in reading including a review of the procedures involved in identifying those deficiencies. Extensive use of both teacher-made and commercially prepared materials.

Prerequisite: permission of the instructor.
3 hours credit

ED 525. Curriculum Framework B Integration/Innovations

Builds upon the information provided in ED 520. A curriculum issues and development course, students analyze current developments in the field of curriculum and instruction. Students develop an innovative curriculum framework integrating many content frameworks and innovative techniques.

3 hours credit

ED 526. The Middle School D Curriculum

Study of the philosophy, organization, and curriculum of the middle school; emphasis on the role of the teacher unchanging from junior high school to middle school. Important research and experimental models examined.

3 hours credit

ED 527. Microcomputers in B Education

Examines the impact of the microcomputer in today's schools. Machine functions and software will be introduced utilized, and reviewed. Programming (BASIC) will be introduced and utilized in class to develop sample programs.

3 hours credit

ED 528. Computer Literacy for C Educators

This course is designed to introduce education personnel to the techniques and equipment involved in the use and develop-

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ment of computer-assisted instruction. A preliminary introduction to the microcomputer will be a part of the course. The role of both CAI and computer-managed instruction will be explored, including the possibilities of record management, analysis of student performance, and the development of original CA I materials. Emphasis will be placed on the use of "high level, user-friendly" languages such as PILOT and LOGO.

3 hours credit

ED 529. Behavioral Disorders of B School Children

Study of "the child with mild to severe behavior disorders, emphasizing etiology, diagnosis, and strategies for management of the child and modification of the behavior. Examination of both non-categorical approaches, and clinical syndromes such as autism.

Prerequisite: permission of instructor.

3 hours credit

ED 530. Learning Theories and B the Teaching Process

Theoretical and scientific bases underlying the teaching-learning process. Applications to the learning process in the classroom.

3 hours credit

ED 521. Philosophy of B Education

Orientation to major philosophical outlooks and problems in contemporary education.

3 hours credit

ED 532. Teaching Systems of D Measurement: Metrics

Encourages and prepares teachers to teach metrics in the elementary/junior high school classroom. Laboratory, learner-oriented activities approach utilized for developing knowledge of the metric system and materials for classroom use.

3 hours credit

ED 535. School and Society B

Analysis of the school in relation to other socializing influences. Cultural change and its effect upon education. The school in relation to specific problems of changing American communities. Review of studies of teaching as an occupation.

3 hours credit

ED 536. Mental Health for D Teachers

Mental Health for Teachers is especially designed for in-service teachers who are working with children from kindergarten through Grade 12. Coping with the multitude of problems which are growing daily

in numbers and seventy will be researched and discussed. Strategies will be offered to help teachers maintain their own mental health.

3 hours credit

ED 537. Comparative Children's D Literature

Investigation and study of children's literature, including recent research. Critical analysis of all literary genres for children, preschool through middle school. Emphasis on stimulation of interest and inquiry through current concerns (values education, stereotyping, censorship, visual literacy, etc.).

3 hours credit

ED 539. Current Issues and B Problems in Education

Identification, definition, and analysis of problems and issues facing education today. Current criticisms of public schools. Proper responsibilities of the schools. Questions of curriculum development and how well schools are teaching basic skills.

3 hours credit

ED 543. Education for Gifted B and Talented

The study and development of educational programs for optimum growth of gifted talented children. Study and observation of curriculum content, organization of special schools and classes, teaching materials and methods, and the evaluation and administrative adjustments being made for gifted /talented children.

3-6 hours credit

ED 544. The Secondary School D Curriculum

Study of current revival of interest in secondary school curriculum: new mandates, emerging practices, varied points of view, and sample programs. Role of classroom teacher and school administrator in curriculum development.

3 hours credit

ED 545. History of American B Education

Historical interpretation of American education. Characteristics of American colonial education and significant developments in American elementary, secondary, and higher education during the 19th and 20th centuries.

3 hours credit

ED 549. Comparative B Education

Educational systems of selected foreign countries emphasizing educational philosophies and practices. Cultural, historical,

and philosophical foundations underlying each educational system.

3 hours credit

ED 550. Composition in the D Secondary School

Examination of relationship between linguistic concepts and writing process. Analysis of relative values and appropriate levels of instruction for various types of writing. Investigation of effective instructional and evaluation procedures.

3 hours credit

ED 553. Citizenship Education: D Moral-Legal Education

Curriculum planning and revision, kindergarten through twelfth grade, as it relates to the moral-legal dilemmas facing teachers and students today. Elements include: (1) law-related education; (2) various theoretical positions regarding moral development; (3) moral dilemmas (case studies) drawn from schools; and (4) curricular implications and revisions needed.

3 hours credit

ED 554. Seminar in Secondary D Science Education

Systematic analysis of persistent problems encountered in teaching secondary school science in relation to significant professional literature in field of science education.

3 hours credit

ED 561. Contemporary Issues in C Parent/Teacher Relationships

Focus on building successful partnerships with parents from diverse family structures. Identifies models of parent involvement currently in schools and shares practical ideas for increasing parent involvement in classrooms. Discusses current educational mandates for parent involvement and implications for school districts.

3 hours credit

ED 562. Infant Development and C Education

Nutritional and psychological influences on prenatal, infant, and toddler growth and development. Topics covered: childbirth, breastfeeding, infant stimulation, intellectual development, attachment behavior, and infants in group care. Current research in infant development.

3 hours credit

ED 570. Understanding A Educational Research

The course assists educational practitioners to become knowledgeable consumers of research and evaluation reports by helping them to critically analyze and evaluate a variety of research studies. It

examines the nature of reasoning in educational research, the use of measurement procedures in quantifying traits, the role of design in testing hypotheses, the role of statistics in analyzing data, and the limitations inherent in generalizing the results of specific research studies. *Required in first 9 hours of graduate study.*
3 hours credit

ED 573. Production and Use of D Instructional Media

Laboratory course in instructional graphics, film, and photography production and design, and production techniques. Series of individual projects completed, field tested, and evaluated.
3 hours credit

ED 575. Instructional Television D and Radio

Place of television and radio in education, including present applications and potential. Role of teacher, administrator, and production staff in instructional radio and program development and utilization. Experience in television and radio teaching provided.
3 hours credit

ED 580. Teaching Grades 7-12 D

(A selected area to be designated - General, English, Mathematics, Foreign Languages, Science, or Social Studies.)

Practical suggestions for teachers working in secondary school. Focus on materials and teaching procedures for specific units of work such as: teaching as problem solving, evaluation strategies, instructional techniques, and recent developments in educational thinking and practice which have affected the curriculum. Special attention to selected topics according to needs and interests of participants.
3 hours credit

ED 590-591. Studies in Education B

Exploration in depth of selected topics in professional education. Principal focus of the course varies from semester to semester.
3 hours' credit each semester

ED 603. Issues, Trends, and C Research in Elementary School Science

Issues, trends, and research in teaching science in the elementary school. Primary and secondary sources of research findings dealing with these issues. Emphasis on individual readings and seminar discussions.
3 hours credit

ED 605. Issues, Trends, and C Research in Elementary School Language Arts

Structure and organization of language arts programs. Examination of past and current research. Evaluation of current programs.
3 hours credit

ED 606. Methods in Diagnosis B and Treatment of Reading Difficulties

Nature and possible causes of reading disabilities. Principles underlying the diagnosis of reading difficulties. Development of competence in analyzing reading problems through use of diagnostic techniques.

Prerequisite: permission of instructor.
3 hours credit

ED 607. Practicum in Reading B

Supervised laboratory experiences in diagnosis and treatment of reading difficulties.

Prerequisite: ED 606 or equivalent.
3 hours credit

ED 608. Clinical Diagnosis of B Reading Disabilities

Administration, interpretation, and evaluation of individual diagnostic instruments used in diagnosis of reading disabilities. Preparation of case studies. Diagnosis of more severe types of reading disabilities.

Prerequisite: ED 607 or equivalent.
3 hours credit

ED 611. Advanced Seminar in D Elementary Education

Individual problems of the teachers enrolled. Individual research on problems of special interest under guidance of one or more staff members.
3 hours credit

ED 622. Issues, Trends, and D Research in Reading

Critical analysis of past and current issues, trends, and research in reading. Evaluation of current reading programs. Seminar discussions.
3 hours credit

ED 623. The Application of C Microcomputers to School Administration

Provides students with hands-on experience in using microcomputers to execute the responsibilities of the school administrator. After the introductory sessions, each class lecture and laboratory session is based upon a practical problem. Through the use of simulations, students gain experience in resolving practical administrative problems.
3 hours credit

ED 625. Early Childhood C Curriculum

Special attention to educational experiences for children; parent involvement; health, psychological, and social services; planning and adaptation of facilities; utilization of materials and equipment; and development of internal program evaluation.
3 hours credit

ED 629. Issues, Trends, and C Research in Early Childhood Education

Basic issues in early childhood education explored, current trends delineated, and past and current research studies.
3 hours credit

ED 635. Curriculum Development in Social Studies Education

Investigation of basic principles in curriculum development in elementary social studies. Examination of current social studies curricula and materials. Individual students or small groups work on social studies curriculum projects of special interest.

Prerequisites: 3 hours in social studies education and 12 hours in the social sciences, undergraduate level.
3 hours credit

ED 636. Issues, Trends, and D Research in Elementary School Social Studies

Structure and organization of social studies programs. Examination of past and current issues, trends, and research in social studies education. Evaluation of current social studies programs.
3 hours credit

ED 640. Issues and Trends in D Elementary School Mathematics

Systematic examination of the issues and trends in a modern program of elementary school mathematics. Basic review of what constitutes a modern program in elementary school mathematics, based on an examination of experimental programs, trends, and current materials. Attention focused on the nature of current programs as to content, instructional materials, procedures, and evaluation.
3 hours credit

ED 642. An Activity Oriented C Methods Course for Elementary Mathematics Teachers

Encourages and prepares teachers to teach elementary mathematics through laboratory and learner-oriented activities. Class members prepare laboratory materials, kits, and activity-type lessons for their own classrooms.
3 hours credit

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ED 643. Diagnosis and Treatment of Learning Difficulties in Elementary School Mathematics D

Examination of symptoms and causes of learning difficulties in mathematics, including a systematic approach to the diagnosis of these difficulties through the use of both individual and group techniques. Basic guidelines for prescribing and evaluating remedial instruction.

3 hours credit

ED 670. Independent Study A

Provides advanced graduate students the opportunity to work individually on problems of special concern not otherwise available through regular course offerings under the direction of a qualified department member.

Prerequisite: permission of advisor and/or chairperson.

Variable credit

ED 690-691. Research A

Research including the preparation of a project, essay, or thesis.

Prerequisite: permission of instructor, advisor, or chairperson.

3-6 hours credit

ADMINISTRATION AND SUPERVISION

ED 614. Principles of Administration B

Basic functions of educational administration. Role of administrator as service agent for instruction and his/her function as coordinator of school programs.

3 hours & credit

ED 615. The School Administrator/Supervisor B

Nature, responsibilities, and developing status of elementary and secondary principals. Role of principal and supervisor as educational leader: relationships with parent and community groups, guidance functions, management of administrative records, administration of equipment and supplies.

3 hours credit

ED 616. Supervision I: Theory and Practice B

Nature and function of supervision in modern school. Role of supervisor in cooperative group planning and development of programs for improving instruction. Supervisor's part in development of common aims and guiding principles of instruction. Ways of studying and improving curriculum practices. Development of public understanding of and participation in school policies.

3 hours credit

ED 617. Supervision II: The Improvement of Instruction B

Supervisor's role in improving quality of instruction. Relation of purpose of supervision to goals of the school. Appraisal of school programs and quality of instruction. Techniques for improvement of instruction. Instructional supplies and equipment; school facilities.

3 hours credit

*** ED 618. Internship: School Administrator/Supervisor, Elementary** B

Field experience in activities related to functions of elementary school administrator/supervisor.

3-6 hours credit

*** ED 619. Internship: School Administrator/Supervisor, Secondary** B

Field experience in activities related to functions of secondary school administrator/supervisor.

3-6 hours credit

ED 620. Public School Finance B

Factors associated with financial support of public education in U.S. Study and analysis of local, state, and federal responsibilities for support of education. Support programs and efforts at all levels. Development of local budget as instrument for achieving educational objectives of the school.

3 hours credit

ED 624. Contemporary Problems in School Administration B

Intensive study of selected current or emerging problems in administration. Significant problems chosen for study. Will vary.

3 hours credit

ED 626. Public School Law B

Study of law and principles of law as they apply to organization and administration of education in the nation and state. Special attention to teacher and the law; impact of court decisions on the school.

3 hours credit

ED 630. Educational Administration B

Advanced course devoted to analysis of one of the following topics: The Politics of Education, Studies in Administrative Leadership, School-Community Relations, Collective Negotiations, School Personnel Administration, Administering Innovative Programs, or Management Objectives.

3 hours credit

Registration for ED618-619 is conditional upon permission of the student's advisor. Permission is based on several factors including satisfactory completion of appropriate course work and of a preliminary draft of the proposed internship experience.

ENGLISH

Office: 277 Fenton Hall
Minda Rae Amiran,
Chairperson

Karen Mills-Courts,
Associate Chairperson “

Master of Arts

The graduate program in English provides students with the opportunity to study language and literature represented in various cultures and media. The program emphasizes the importance of “learning how to learn” rather than becoming only storehouses of information. Equally important is the objective of offering potential and practicing teachers the opportunity to refine, discover or change their own approaches to the teaching of language and literacy.

Departmental Requirements for Admission to the Degree Program

1. The deadline for “Completed Applications” conforms to college policy (see pg. 5).
2. “Completed Applications” must include a transcript of prior college performance, three letters attesting to the candidate’s breadth of preparation and quality of performance in an undergraduate English major or equivalent, and, if applicable, a letter from a school administrator indicating employment as a teacher of English.
3. Students admitted to the program will be assigned advisors and are responsible for conferring with their advisors to insure they are meeting program requirements.
4. Admission to graduate courses in English for approved, non-degree graduate students will be granted at in-person registration on a “space available” basis.

Requirements for Admission to Graduate-level Courses

1. Priority will be given to students who:
 - A. Have already been admitted to graduate studies in English.
 - B. Are already enrolled in a graduate English course at Fredonia. (pre-registration strongly advised).
2. All others will be admitted to graduate courses depending on their preparation and space available (see 2. above)

3. *With permission of the instructor*, qualified undergraduates may take 500-level graduate courses in accordance with the stated rules provided in the college *Graduate and Undergraduate Catalog*.

Program Requirements

English and American Literature

A minimum of 30 hours of graduate-level courses, including:

1. EN 510, 512, 514 and 516 12 Hrs.
2. Either A or B: 6
 - A. EN 690 and 691 (Thesis Research I and II) and an oral defense of the thesis. EN 691 must be the final 3 hours taken among the 30 hours required.
 - B. Six additional hours chosen from courses numbered 510, 512, 514 and 516, and a project approved and supervised by the student’s faculty advisor and begun after the student has completed 15 hours of course work. Advisors will provide details on project requirements.
3. Twelve additional hours of course work chosen in consultation with the student’s faculty advisor. No more than 9 of these hours may be earned in courses numbered 580. 12
4. With the approval of the chairperson of the Department of English, the student may use up to 6 hours of graduate-level work in related fields to complete the 30 hour requirement.

Master of Science in Education

Departmental requirements for admission to program without deficiencies:

Provisional certification to teach English in the secondary schools of New York State, or equivalent preparation, for those seeking permanent certification.

Program Requirements Hrs.
30 credit hours of graduate-level work, including:

- | | |
|--|----|
| 1. ED 570 Understanding Educational Research | 3 |
| One course in psychological, social, historical, philosophical, or comparative foundations of education | 3 |
| One course in pedagogy, methodology, curriculum, or instruction | 3 |
| 2. EN 510, 512, 514, 516, 554, 655, and 3 additional graduate hours of English. | 21 |
| 3. A project, approved by the student’s faculty advisory committee and begun after the student has completed 15 hours of course work. The project should focus on the teaching of literature and/or writing. | |

The courses below marked with an asterisk (*) are variable-content, variable-title courses that may be taken more than once for credit, if the title, content, and approach indicate that the course is not a repetition of a course for which credit has already been earned.

EN 509. Research Techniques D and Bibliography

Study of and practice in methods of literary research and documentation.
3 hours credit

*** EN 510. Major Writers B**

Study in-depth of one writer or up to three writers related on the basis of a unifying principle.
3 hours credit

*** EN 512. Historical Perspectives B in Literature**

Study of the development of important movements or concepts in literature.
3 hours credit

*** EN 514. Comparative B Approaches to Literature**

Study of literary works from different time periods, nations, or cultures.
3 hours credit

*** EN 516. Criticism and Theory B**

Study of theoretical approaches to literature and to the teaching of literature.
3 hours credit

EN 554. Teaching Writing in the Secondary School **D**

Study of and practice in approaches to teaching writing, with emphasis on whole-language instruction. Survey of recent research in written composition and its applications in the secondary classroom.
3 hours credit

* **EN 580. Studies in Literature A**

Study in literature or language in conjunction with a cross-listed undergraduate 400-level course. Graduate students are required to do graduate-level work beyond the course requirements for undergraduate students.
3 hours credit

* **EN 605. Independent Study** **A**

Independent study of a defined topic under the supervision of an instructor. No more than 6 hours of this course may be applied to degree requirements.
Prerequisite: approval of the instructor.
3 hours credit

EN 665. Studies in English Education **D**

Study of components of English with emphasis on the relationships between linguistics, criticism, composition, media, and learning theories. Focus is on the implications of these relationships for teaching English.
3 hours credit

EN 690-691. Thesis Research I A and II

Directed research leading to the preparation of a thesis. The two courses must be taken sequentially in separate semesters.
3 hours credit each semester

FOREIGN LANGUAGES AND LITERATURES

Office: 2113 Fenton Hall
Howard B. Wescott,
Chairperson

FL 500. Special Topics in Foreign Languages **D**

Special area in any of the foreign languages and literatures not covered by regular courses.
Prerequisite: permission of department.
1-3 hours credit

FL 510. Directed Study **D**

Individual supervised study of particular area or topic in any of the department's language or literature offerings. Periodic meetings with instructor and writing a substantial paper.
Prerequisite: permission of department.
1-3 hours credit

GEOSCIENCES

Office: 106 Houghton Hall
Walther M. Barnard,
Chairperson

GS 510. Analytical Mineralogy and Geochemistry **D**

Fundamental principles, techniques, and applications of methods for determination of nature and chemical composition of minerals and other materials. Topics include x-ray diffraction and fluorescence spectrometry, differential thermal analysis, atomic absorption spectrophotometry, infrared spectrophotometry, emission spectrography, neutron activation/gamma-ray spectroscopy, and computer-supported data analysis. Laboratory work involves use of analytical instruments.
Prerequisites: Mineralogy and one year of chemistry or permission of department.
3 hours credit

GS 520. Aqueous Geochemistry **D**

Application of thermodynamics to natural systems of geological interest and geochemical concern, especially equilibria relations among minerals and solutions. Study and interpretation of chemical characteristics of water.
Prerequisite: Mineralogy and one year of chemistry or permission of department.
3 hours credit

GS 525. Geology of North America **D**

Overview of geological development of North American continent that led to present topographic and geologic features. Examines evidence from stratigraphy, structural geology, paleontology, crystalline basement geology, and geomorphology characteristic of major physiographic provinces. Term paper required. Team-taught.
Prerequisites: one semester each of stratigraphy, petrology, and structural geology, or permission of department.
3 hours credit

GS 530. Advanced Geomorphology **D**

Quantitative study of surficial processes; interaction with materials exposed

on Earth's surface; evaluation of approaches to measurement of hydrologic, hydraulic, and geologic variables in the "dynamic" equilibrium determining land forms.

Prerequisites: Geomorphology, one year of physics, or permission of department.
3 hours credit

GS 535. Advanced Geophysics **D**

Interpretation of the Earth's composition and history using seismic, gravity, electrical, magnetic and other sensors.
Prerequisite: permission of department.
3 hours credit

GS 540. Environmental Geology **D**

Examines relationships between people and the environment from a geological perspective. Considers natural earth forces, earthquakes, volcanoes, weather phenomena, and floods, as well as self-made problems: mineral and energy crisis, waste disposal, and water and air pollution. Solutions to environmental problems using engineering geology and enlightened land use planning.
Prerequisite: permission of department.
3 hours credit

GS 545. Exploration Science **D**

The combining of remote sensing, geophysics, field mapping, sampling and drilling into exploration programs. Includes theory and practice of exploration statistics and modeling.
Prerequisite: permission of department.
3 hours credit

GS 550. Advanced Petrology **D**

Classification, mineralogy, textures, occurrence, chemistry, and origin of volcanic and plutonic igneous rocks. Chemical and physical changes in rocks subjected to elevated temperature and pressure. Classification of metamorphic textures and structures.
Prerequisites: Mineralogy, including optical, a course in microscopic petrography, or permission of department.
3 hours credit

GS 555. Biostratigraphy **D**

Temporal, lithologic, and ecologic relationships of fossil organisms. Importance as rock builders, sediment modifiers, and guides to time and environment.
Prerequisites: one semester each of paleontology, sedimentation, and stratigraphy, or permission of department.
3 hours credit

GS 565. Global Tectonics **D**

Spatial, temporal, and structural character of continents, ocean basins, orogenic zones, stable platforms, and shields on a

world-wide basis. Emphasis on theory of plate tectonics.

Prerequisites: one semester each of petrology and structural geology or permission of department.

3 hours credit

GS 570. Applied Structural Geology D

Applications of structural geology to mining, petroleum, and engineering.

Prerequisite: one semester of structural geology or permission of department.

3 hours credit

GS 575. Planetary Geology D

Explores origin, evolution, and nature of Earth, Moon, planets and other members of the Solar System. Emphasis on petrology, geochemistry, geomorphology of planetary bodies and the significance of data from interplanetary space probes, earth-based observatories, and meteorite and lunar rock studies to problems of planetary origins.

Prerequisites: one semester each of mineralogy and petrology or permission of department.

3 hours credit

GS 580-589. Special Topics in D Advanced Geosciences

Special areas of problems in advanced geosciences not covered by regular graduate courses.

Prerequisite: permission of department.

3 hours credit each semester

GS 590. Independent Study D

Independent study of topics not covered in regular graduate course offerings and pertinent to student's program of study or future career.

Prerequisites: graduate standing and permission of department.

3 hours credit

GS 610,615. Independent Research D

Independent research and study in current geoscientific problems based on laboratory and field research or current literature.

Prerequisite: permission of department.

3 hours credit each semester

* These courses, primarily for elementary and secondary teachers, may be taken only with permission of department.

HEALTH, PHYSICAL EDUCATION, ATHLETICS, AND DANCE

Office: 116 Dods Hall
Charles C. Davis,
Chairperson

Thomas E. Prevet,
Director of Athletics

DA 561-562. Practicum in Dance D

Internship in dance teaching for senior or graduate dance students. By audition only.

Prerequisite: permission of department.

6 credit hours

MATHEMATICS

Office: 223 Fenton Hall
James E. McKenna,
Chairperson

Master of Arts

Departmental requirements for admission to program without deficiencies:

An undergraduate major in mathematics, including a year of abstract algebra and a year of introductory real variables.

Program Requirements Hrs.

1. A minimum of 30 semester hours of graduate level courses in mathematics, including:
 - MA 526-527 Real Variables 12
 - MA 530-531 Algebra
 - MA 540-541 Topology
 - or
 - MA 542-543 Projective and Related Geometries 6
 - Electives: Twelve semester hours in mathematics, as advised 12
 2. Final Comprehensive Examination
- Total 30

Master of Science in Education

Departmental requirements for admission to program without deficiencies:

Provisional certification to teach mathematics in the secondary schools of New York State.

Program Requirements Hrs.

A minimum of 30 semester hours of graduate-level courses including:

1. General Requirements
 - ED 570 Understanding Educational Research 3
 - One course in psychological, historical, philosophical, or comparative foundations of education 3
 - One course in pedagogy, methodology, or instruction 3
2. Area of Certification 18
 - Eighteen hours to be selected under departmental advisement from 500- and 600-level offerings in mathematics
3. Special Project 3
 - Thesis, independent study project, or research project from either professional education or mathematics
4. Final Examination
 - A two-part comprehensive examination will be required of each student - an intensive examination either oral or written in the areas of specialization and an oral or written examination covering the professional component of the student's program

Total G

MA 500. Independent Study A
Independent study of selected list of topics approved by faculty advisor.
Prerequisite: permission of department.
3-6 hours credit

MA 503. **Mathematics Seminar D**
Selected readings, discussions, and reports on topics in modern mathematics.
Prerequisite: permission of department.
3-6 hours credit

* MA 508. **Mathematical Applications for Teachers D**
Mathematical applications of concepts encountered in high school algebra, geometry, trigonometry, and calculus, as well as

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practical applications of some topics found in junior high mathematics. 3 hours credit

*** MA 509. Principles of Computer D Programming**

Primarily for secondary mathematics teachers whose undergraduate preparation did not include introduction to computer programming. Major attention to problem solving with computer. Student prepares programs in algebraic compiler language such as FORTRAN for execution with equipment currently available at college Computing Services.

Prerequisite: permission of department. 3 hours credit

*** MA 510. Fundamental Modern D Mathematics for Elementary Teachers**

In-service course for elementary teachers providing opportunity to acquire basic competency in such important areas as number theory, geometry, mathematical reasoning, and probability and statistics. 3 hours credit

*** MA 513. Modern Mathematics D for Junior High School Teachers**

Fundamental concepts of mathematics such as numbers, systems, sets, sentences, logic, functions, relations, geometric concepts expressed in set language, ratios, probabilities, measurement, and problem solving. 3 hours credit

*** MA 514. Seminar: A Critical D Study of the Evolving Mathematics for Grades 7-9**

Study of experimental materials and current research relevant to teaching mathematics at junior high level. 3 hours credit

*** MA 515. Seminar: A Critical D Study of the Evolving Mathematics for Grades 10-12**

Study of experimental materials and current research relevant to teaching mathematics at senior high level. 3 hours credit

*** MA 516. Modern Abstract D Algebra (Structures)**

Structures and properties of integers and rings, fields, polynomials, and groups. Proofs of theorems. 3 hours credit

*** MA 517. Linear Algebra D**

Vector spaces, linear dependence, linear transformations, matrices, change of bases, characteristic vectors, canonical forms, quadratic forms, determinants, Cayley-Hamilton Theorem, and related topics. 3 hours credit

*** MA 518. Modern Geometry D**

Elements of plane geometry (through congruence) from synthetic and metric approaches. The S. M. S. G. metric approach in plane and solid geometry, Euclid's geometry extended. Discovery of analytic geometry, applications, parallelism, similarity. Area, volume. Ruler and compass constructions. Non-Euclidean geometries. 3 hours credit

*** MA 519. Non-Euclidean D Geometry**

Role of 5th postulate of Euclid. Absolute plane geometry. Euclidean geometry contrasted with Lobachevskian and Riemannian. Introduction to projective geometry. Pure analytic geometry. 3 hours credit

Prerequisite: MA 518.

*** MA 520. Probability-Statistics I D**

Introduction to probabilities. Independent trials. Functions of sample space. Poisson and normal approximations. Elementary statistics (based on probability theory). Sampling. Estimation and hypothesis testing. Applications. 3 hours credit

*** MA 521. Probability-Statistics II D**

Continuous sample spaces. Limit theorems. Stochastic processes. Statistical inference. Statistical models. Applications. 3 hours credit

Prerequisite: MA 520.

*** MA 523. Theory of Numbers D**

The Euclidean algorithm and its consequences. Congruences. Primitive roots and indices. Quadratic residues. Number theoretic functions and distribution of primes. Sums of squares. Pen's equation and some applications to rational number theory. 3 hours credit

MA 525. Foundations of D Mathematics

Fundamentals of set theory, construction of number system, axiomatic method, mathematical logic, viewpoints on foundations. 3 hours credit

Prerequisite: permission of department.

MA 526-527. Real Variables D

Topology of the real line. Lebesgue measure and integration on the real line. 3 hours credit

Lp spaces, measure spaces, signed measures, introduction to Banach spaces.

Prerequisites: two semesters of undergraduate course in real variables; MA 526 prerequisite to 527.

3 hours credit each semester

MA 528. Group Theory with D Applications

Groups, subgroups, normal subgroups, factor groups, isomorphism theorems, the Classification Theorem for isometries, symmetry groups of polygons and polyhedra.

Prerequisite: one semester of undergraduate abstract algebra.

3 hours credit

MA 530-531. Algebra D

Sets, functions, functors. Universal elements, groups, isomorphism theorems, rings, modules, field theory. Introduction to homological algebra.

Prerequisites: two semesters of undergraduate course in abstract algebra; MA 530 is prerequisite to 531.

3 hours credit each semester

MA 532. Algebra of Vectors and D Matrices

Finite dimensional vector spaces and their linear transformations. Fields, vector spaces, bases, dual spaces, multilinear forms, tensor products, basis-free definition of determinants, matrices, orthonogonality, Jordan canonical form, Hamilton-Cayley theorem, spectral theorem.

Prerequisite: Abstract Algebra.

3 hours credit

MA 540-541. Topology D

Detailed study of topological spaces, their invariants (both set theoretic and algebraic), and their fundamental properties.

Prerequisite: two semesters of real variables; MA 540 prerequisite to 541.

3 hours credit each semester

MA 542-543. Projective and D Related Geometries

Using an approach based mainly on linear algebra, development of projective geometry and various geometries which arise as subgeometries of projective geometry.

Prerequisites: two semesters of undergraduate geometry or permission of department; MA 542 prerequisite to 543.

3 hours credit each semester

*** MA 581. Historical Development D of Mathematics**

Historical evolution of elementary mathematics from ancient times to present.

3 hours credit

[†]These courses, primarily for elementary and secondary teachers, may be taken only with permission of department.

MA 603. Mathematics Seminar D
Selected readings, discussions, and reports on advanced topics in modern mathematics.

Prerequisite: permission of department.
3-6 hours credit

MUSIC

Office: 1004 Mason Hall
Peter J. Schoenbach,
Director

W. Stephen Mayo,
Associate Director

Barry Kilpatrick,
Assistant Director

Master of Music

Requirements for admission to music programs without deficiencies.

The completion of a baccalaureate degree in Music at an accredited four-year institution.

Applicants in music education must have had undergraduate studies equivalent to the Bachelor of Music in Music Education degree offered at the College at Fredonia. A performance audition is not necessary for admission to the Master of Music in Music Education degree program. However, students in the Music Education degree program who desire to do a performance project in lieu of a thesis must audition for and be accepted by the appropriate applied music faculty at the time of application and not later than 6 to 12 hours into the program.

Applicants seeking the Master of Music in Performance degree must audition for and be accepted by the appropriate applied music faculty.

Applicants seeking the Master of Music in Theory-Composition degree must have had undergraduate studies in music equivalent to a Bachelor of Music degree with a major in theory or composition, or any other undergraduate

music degree which includes four semesters of music theory (equivalent to the College at Fredonia's MU 121-122, 123-124, 221-222, 223-224), a music history survey (equivalent to MU 160, 252 and 255), and advanced undergraduate courses in theory, composition, orchestration, counterpoint, or music history totaling at least 12 semester hours. The degree program is structured so that the student may place emphasis on either theory or composition. Those who wish to follow the theory emphasis must present evidence of previous analytical work; those who wish to pursue the composition emphasis must present a representative selection of compositions for evaluation. All applicants, therefore, are subject to approval by the theory-composition faculty.

Master of Music in Music Education

Final Project Program

This program leads to one of three Final Project options: A Thesis, a Composition/Arrangement, or a Performance Recital. It is designed to prepare a student for further graduate study or to refine a specific area of interest or competence. This program leads to the academic qualifications required for Permanent Certification in New York State.

Program Requirements Hrs.

Music Education and Related Course Work

ME 521 Foundations in Music Education 3

ME 522 Psychological Research in Music , 3

Music Education and/or Music Education related courses, by advisement (ME or MU)

Course work in theory, history, literature, performance 9

Elective course work by advisement 6

Individualized selection of course work in theory, history, literature, performance and special studies (MU/ME 590-591). Course work outside of music is also acceptable, subject to the establishing of a clear relationship to the candidate's personal

growth and professional competence. Short "workshops" (ME 555) can be applied only in this category and require prior permission of the program advisor.

Final Project

ME 695

3
30

General Requirements

- At least 12 credits for the overall program should be in course work dealing with music theory, history, literature, analysis, or performance.
- At least 9 credits for the overall program should be in course work dealing with music theory, history, literature, analysis, or performance.
- At least 15 credits of the overall program should be in course work at the 600 level.
- Comprehensive Final Examinations
 - Music Education.* Administered by the two faculty with whom the candidate has done the most course work in the category of Music Education and Related Course Work. Evaluates the general competence of the candidate with regard to foundations, theory, principles and practices of music education. Questions are based upon music education course work but may also include some general questioning beyond specific course work.
 - Theory, History, Literature, Performance.* Administered by the two faculty with whom the candidate has done the most course work in this category. Evaluates the general competence of the candidate with regard to the level of musical knowledge and skill appropriate to teaching competence and the general musicianship and literacy expected for the Master of Music degree. Questions are based upon course work taken in this category but also may include some general questioning beyond specific course work.
- For more detailed information about program requirements, the candidate is referred to the *Policies and Practices for Master of Music Degree Candidates* available from the School of Music office.

In-Service Program

This program provides the graduate student who is a teacher a greater range of courses rather than the often more specialized concentration of the Final Project program. In recognition of the great individual differences among teachers, their teaching po-

sitions, and thus of their particular needs, this program allows maximum flexibility with a broad, yet balanced selection of choices. This program leads to the academic qualifications required for Permanent Certification in New York State.

Program Requirements *Hrs.*

Music *Education and Related Course Work*
ME 521 Foundation in Music 3
Education.

ME 522 Psychological Research in 3
Music

Music Education and/or Music Educa- 9
tion related courses, by advisement
(ME or MU)

Course work in theory, history, litera- 12
ture, performance

Elective course work by advisement 9

Individualized selection of course work in theory, history, literature, performance and special studies (MU/ME 590-591). Course work outside of music is also acceptable subject to the establishing of a clear relationship to the candidate's personal growth and professional competence. Short "workshops" (ME 555) can be applied only to this category and require prior permission of the program advisor.

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General Requirements

1. At least 15 credits of the overall program should be in music education and music education related course work.
2. At least 12 credits of the overall program should be in course work dealing with music theory, history, literature, analysis, or performance.
3. At least 18 credits of the overall program should be in course work at the 600 level.
4. Comprehensive Final Examinations

a. *Music Education.* Administered by the two faculty with whom the candidate has done the most course work in the category of Music Education and Related Course Work. Evaluates the general competence of the candidate with regard to foundations, theory, principles and practices of music education. Questions are based upon music education course work but may also include some general questioning beyond specific course work.

b. *Theory, History, Literature, Performance.* Administered by the two faculty with whom the candidate has done the most course work in this category. Evaluates the general competence of the can-

didate with regard to the level of musical knowledge and skill appropriate to teaching competence and the general musicianship and literacy expected for the Master of Music degree. Questions are based upon course work taken in this category but also may include some general questioning beyond specific course work.

5. For more detailed information about program requirements, the candidate is referred to the *Policies and Practices for Master of Music Degree Candidates* available from the School of Music office.

Master of Music in Performance

Program Requirements *Hrs.*

1. A minimum of 30 semester hours of graduate level courses, with a minimum of 15 hours at the 600 level, including:
 - Studio instruction, MU 692-693 6
 - MU 694 Recital 3
 - Music history, literature, or theory courses related to the performance area 9
 - Music history 3
 - Music theory 3
 - Elective courses in supporting areas of arts and sciences, professional education, music, or music education 6
 2. Two semesters of ensemble participation (by advisement) 0
 3. Final Comprehensive Oral Examination 0
- Total 30

Master of Music in Theory-Composition

Program Requirements *Hrs.*

1. A minimum of 30 semester hours of graduate-level courses, with a minimum of 15 hours at the 600 level, including:
 - For Concentration in Theory*
 - Theory and composition 12
 - courses, in which Pedagogy of Theory MU 650 must be included
 - Thesis (theory project) 3
 - OR

For Concentration in Composition

Theory and composition courses, which must include two semesters (6 credit hours) of composition	12
Thesis (large-scale composition)	3
Music history and studio instruction	9
Elective courses in supporting areas of the fine arts, arts and sciences, professional education, music, or music education	6
2. Two semesters of ensemble participation (by advisement)	0
3. Final Comprehensive oral Examination	0
Total	30

Provisional Certification Program in Music Education

This program of study is designed for holders of accredited baccalaureates in music with majors other than music education. It is a *full-time non-degree* program of study resulting in qualification for New York State Provisional Teaching Certification, Music K through 12.

Program Requirements

- 1: Core Curriculum and General College Program:

Applicants with accredited baccalaureates in music usually already meet the equivalency of the requirements in (a) the Fredonia School of Music Core Curriculum (applied major, music theory, music history, ensembles, etc.) and (b) Fredonia's General College Program (liberal arts and sciences for general education). The applicant's status with regard to any deficiencies of these areas, however, is determined by an evaluation of academic transcript/diagnostic examination/audition as applicable. Applicants with serious deficiencies will not be considered for admission to the Provisional Certification Program but instead may apply for the Bachelor of Music in Music Education degree program.

2. Certification Curriculum:

Specifically required are music education foundations, methods, conducting, pedagogy, secondary instruments and student teaching.

The minimum certification requirements below may be completed by any approved combination of (1) course work at Fredonia; (2) approved transfer of credits for course work completed elsewhere; and (3) special competency examinations in skill areas. Exact requirements and needs will vary by concentration (Choral or Instrumental) and with individual students by advisement. Exceptions or course substitutions are by permission only from the Director of the School of Music upon the recommendation of the student's academic advisor. Students should note that certain courses are offered only in alternate semesters although most do not necessarily need to be taken sequentially. This is typically a three-semester 40 credit hour full-time residence program consisting of two semesters of certification-related course work and one semester of student teaching.

The student is admitted to Curriculum 558 Provisional Certification Music Education and is eligible to enroll for any Fredonia college course for which he/she has the necessary prerequisites or permission. Tuition is assessed according to the course level (100 to 400-level, undergraduate; 500 and 600-level, graduate). Students should note that this program does not lead to an academic degree although some students may still be eligible for certain types of financial aid. Students completing this curriculum may subsequently apply for admission to enter the Master of Music in Music Education degree program with the acceptance of credit for all graduate level course work already completed at Fredonia.

Certification Requirements Hrs.
(see Undergraduate Catalog for descriptions of these courses)

ME 250 Foundations I	2
ME 251 Foundations H	2
ME 300 Foundations 111	3
ME 391/393 Conducting V	3-2 *
ME 392/394 Conducting VI	3-2 *
ME 301-302, 304-305 Methods	5-7 *
Piano, Guitar, MIDI, Secondary Instruments per Concentration	8
ME 400 Professional Semester (Student Teaching)	14

Successful completion of the LAST (Liberal Arts and Sciences Test), the ATS-W (Assessment of Teaching Skills - Written Test), and a Child Abuse Seminar are also required for state certification.

* depending upon Concentration

MUSIC THEORY/COMPOSITION AND HISTORY

MU 502. Harmonic Styles Since 1850 D

Analytical and compositional study of stylistic developments since 1850 which extend, expand, depart from or negate "common-practice" harmony and tonality. Major composers studied. Emphasis on gaining understanding of their harmonic styles via analysis and compositional imitation by student. Individual projects required.

Prerequisites: MU 160, 221 or equivalent. 3 hours credit

MU 503. Twentieth Century Counterpoint D

Study of linear aspects of music via combining melodies into various textures. Special emphasis on revival of contrapuntal techniques in 20th century by such composers as Busoni, Hindemith, Bartok, Schoenberg, Webern, and their successors; these techniques and styles used in direct composition.

Prerequisites: MU 160,303, or equivalents. 3 hours credit

MU 504. Techniques of Analysis For Performance D

The application of analytical techniques to the performance of music from the Renaissance through current 20th century repertoire. Individual analysis projects related to student's major area of performance are given special emphasis.

Prerequisites: MU 160,221 or permission of the instructor. 3 hours credit

MU 506. Basic Studies Seminar: Theory C

A review of the principles and practices of music theory/composition, centering on the "common-practice" period but not confined to it, and geared to the individual needs of participating students, whose prior involvement with theory may not be recent or extensive. Syllabi for particular areas of study, relevant texts, scores and recordings in library, assignments leading to final paper.

3 hours credit

MU 507. Basic Studies Seminar: History C

A review of the basic framework of Western musical history, centered on a core repertory but not restricted by it, with class listening and discussion; individual projects required of students, utilizing standard research procedures and reference

materials, including scores and recordings; optionally also class lecture and/or performance by students.

Prerequisite: successful completion of undergraduate music history requirement. 3 hours credit

MU 508. 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 520. 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.

3 hours credit

MU 542. The Renaissance Period in Music D

Detailed study of styles, trends, and developments in music in 15th and 16th centuries. Survey of 14th century, Ars Nova period also included. Philosophical and theoretical ideas of period studied as well as the actual music. Performance of Renaissance music stressed.

Prerequisite: MU 160, or equivalent. 3 hours credit

MU 543. The Baroque Period in Music D

Detailed study of styles, trends, and developments in music, 17th and 18th centuries through preclassical era. Music studied through scores, recordings, and performance. Review of important historical and theoretical developments.

Prerequisite: MU 160, or equivalent. 3 hours credit

MU 544. The Classical Period in Music D

Study of styles, trends, and developments in music in classical period (ca. 1740-1820). Study of music of Haydn, Mozart, and other composers included. Music studied through scores, recordings, and performance. Historical and theoretical developments.

Prerequisite: MU 160, or equivalent. 3 hours credit

MU 545. The Romantic Period in Music D

Music, composers, and theorists of 19th and 20th centuries, from after Beethoven

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through impressionists. Emphasis on developments in the music through study of scores and performance. Parallels between musical romanticism and romanticism in other arts.

Prerequisite: MU 160, or equivalent.
3 hours credit

MU 546. 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 160, or equivalent.
3 hours credit

MU 550. Compositional Techniques Since 1950 D

Survey of music since 1950.. Emphasis upon main stylistic trends, avant-garde music, electronic music, multi-media, and new younger composers. Musical analysis and composition required of students.

3 hours credit

MU 555. Special Topics Workshop D

Usually summer or other short-term workshops dealing with specific topics, techniques or problems in music theory, analysis, history or literature. Maximum of 6 credits in increments of no more than 3 credits may apply with permission to requirements in categories of theory, history and literature, or electives.

1-3 hours credit

MU 565. Special Topics Seminar •D

Presentation and investigation of a specific but not regularly scheduled topic of current need or interest. Course may be repeated to a maximum of 6 credits (in different topics) and may apply with permission to requirements in categories of theory, history and literature, or electives.

1-3 hours credit

MU 560-591. Special Studies D

Studies not otherwise available as regular course offerings and relevant to student's program or career plans, pursued in independent, directed, or tutorial manner. Student must submit proposal for approval, format available in the School of Music office. Student must also secure agreement of faculty member to sponsor study. Maximum of 6 credits of any combination of MU and ME may be carped this way in increments of no more than 3 credits.

1-3 hours credit

MU 609-610. Composition A

Advanced free composition for graduate study, concentrating on individual creative musical inclinations of each student. Seminar and private study of 20th century creative concepts.

Prerequisite: MU 438 or 439 (or equivalent), 609 prerequisite for 610; also by permission of instructor.
3 hours credit each semester

MU 611-612. Composition B

Continuation of advanced composition pursuing mature, professional creative expression.

Prerequisite: MU 610 or permission of instructor; 611 prerequisite for 612.
3 hours credit each semester

MU 650. Theory Pedagogy D

Critical survey of materials and methods for teaching music theory in the public schools and college. Emphasis upon problems of communicating to students in the classroom and individually.

Prerequisite: permission of instructor for those not enrolled in the M.M. in Theory-Composition degree program.
3 hours credit

MU 695. Thesis or Final Project A

Candidate for degree in theory-composition engages in advanced work culminating in thesis project or composition /arrangement.

3 hours credit

MUSIC EDUCATION/ MUSIC THERAPY

ME 510. Principles of Music Education with Media D

Study in principles and use of media in instructional situations in music education. Theoretical framework for use of media developed. Student responsible for series of media productions appropriate to music education. Emphasis not on operation of audio-visual equipment, but on effectiveness and efficiency of media-based instruction, thus suitable for non-music majors with some familiarity with music in school situations, but whose interest in media may be more far-reaching.

3 hours credit

ME 512. Seminar: Social Issues C and Music Education

Exploration of current social issues, their relationship to and impact on music education. Consideration of problems and new directions in music education resulting from such social issues as teachers' and musicians' unions, adolescence, music and leisure, gerontology, and continuing educa-

tion; social support for music and music education.

3 hours credit

ME 513. Systematic Design of C Curricula for Music Education

Systematic design of curricula for all areas of music education. Each participant develops actual curriculum, plans for using and evaluating it, and means for evaluating and reporting students' progress.

3 hours credit

MU 514. Psychology of Music B

Study of empirical aesthetics. Explores characteristics of aesthetic response, structural characteristics of music as they relate to aesthetic responses, and theories that describe how this response is achieved and developed. Empirical research studies examined within these theoretical contexts.

3 hours credit

ME 521. Foundations in Music C Education

Study of philosophical, psychological, historical, and sociological foundations of music education in contemporary America, emphasizing current issues and developments. Particular application to curriculum and instruction in school music.

3 hours credit

ME 522. Psychological Research B in Music

Study of and experience with the methods and problems of psychological research in music; introduction to the existing literature relative to music education and music therapy.

3 hours credit

ME 526. Evaluation and Measurement in Music D

Study of content, uses, and interpretation of standardized musical aptitude and achievement tests. Examination of appropriate evaluation and measurement techniques for use in classroom.

3 hours credit

ME 555. Special Topics Workshop D

Usually summer or other short-term workshops dealing with specific music literature, techniques, problems, or teaching methodologies. Maximum of 6 credit hours in increments of no more than 3 credit hours may apply with permission to requirements in the Elective Course Work by Advisement category.

1-3 hours credit

ME 565. Special Topics Seminar D

Presentation and investigation of a specific but not regularly scheduled topic of current need or interest. Course may be

repeated to a maximum of 6 credit hours (in different topics) and may apply with permission to requirements in the categories of Music Education and Related Course Work or Elective Course Work by Advisement.

1-3 hours credit

ME 560-591. Special Studies D

Studies not otherwise available as regular course offerings relevant to students' programs or career plans, pursued in independent, directed, or tutorial manner. Student must submit proposal for approval, available in **School of Music Office**. Student must also secure agreement of faculty member to sponsor the study. Maximum of 6 credit hours of any combination of MU and ME may be earned this way in increments of no more than 3 credit hours.

1-6 hours credit

ME 602. Seminar: The Instrumental Program C

Study of current developments and trends in research and evaluation, philosophical and psychological principles, and their relation to school instrumental music programs. Individual projects in special interest areas.

3 hours credit

ME 605. The Music Program in D the Elementary School

Examination of curriculum problems and trends of music education in present-day elementary school. Emphasis on current teaching approaches and techniques that develop musical responsiveness, broad musical understandings, and musical competence.

Prerequisite: ME 415 or 433 or equivalent.
3 hours credit

ME 607. Vocal and General Music in the Secondary School D

Designed for teachers desiring to improve their effectiveness in this aspect of music education. Emphasizes relevant foundations and principles along with appropriate methods, materials, and skills.

3 hours credit

ME 609. Administration and Supervision of School Music C

Study of current practices. Topics include supervision, in-service education, curricular and instructional developments, public relations, finance, facilities, and resources. Individual projects connected to teaching situations.

3 hours credit

ME 618. Seminar in Music Education C

Presentation and examination of current topics of relevance to music educators. Outside faculty, students, and others in music and related fields called upon as needed. Individual projects.

3 hours credit

ME 651. Philosophical Perspectives for Music Education C

Examination of important philosophies, relevance to music education and educator; aesthetics; contemporary educational philosophies including Existentialism, Reconstructionism, Experimentalism, Realism, Idealism, and philosophies of mind as they relate to the artistic experience and arts education. Emphasis on developing, articulating, and defending a philosophical point of view.

3 hours credit

ME 852. Psychological Perspectives for Music Education C

Examination of important psychological developments and theories and their importance for music education and the music educator: psychology of aesthetics, humanistic psychology, current learning theory, and child and adolescent development as related to problems of instruction in music. Emphasis on articulating and defending methods of instruction and choice of musical content in terms of psychological principles.

3 hours credit

ME 695. Final Project A

Study/research culminating in a Thesis, a Composition/Arrangement, or a Performance Recital as required in the Final Project Program. Candidate must register for this course in *each* semester or term during which the services of the Project Leader are actively engaged toward the completion of the Final Project. Maximum of 3 credit hours.

1-3 hours credit

MY 500. Influence of Music on D Behavior

In-depth examination into music therapy literature and research. Philosophical approach to how music has influenced man's behavior throughout history. Introduction to psychological styles and their relationship to music therapy.

3 hours credit

MY 501. Music in Therapy D

Practical applications of music therapy procedures in clinical situations. Survey of psychological and educational techniques.

3 hours credit

MY 502. Methods and Materials D in Music Therapy

Comprehensive investigation into existing methods - and development of new methods - and resource materials for the application of music therapy in all areas of disability and at all age levels. Examination of developmental stages and functioning in all areas of handicaps.

3 hours credit

MY 503-504. Clinical Practicum D and Seminar

Structural experience in clinical facility with minimum supervision. Five hours per week minimum clinical involvement each semester plus one hour per week classroom seminar/discussion.

Prerequisite: MY 115
4 hours credit each semester

MY 550. Internship in Music D Therapy

Six month clinical internship in approved facility. All course work must be completed before internship begins.

0 hours credit

APPLIED MUSIC

MU 601.602-603-604. Applied Music Minor A

Half-hour lessons in secondary applied instruments.

Prerequisite: permission of School of Music office.

1 hour credit each semester

MU 605-606-607-608. Applied Music Major A

Hour lessons in major applied instruments.

Prerequisite: permission of School of Music office.

2 hours credit each semester

MU 692-693. Studio Instruction A

Two semesters of advanced studio instruction for candidates for Performance degree culminating in MU 694 Recital.

Prerequisite: satisfactory audition administered by faculty of appropriate applied area.

3 hours credit

MU 694. Recital A

Concurrently with MU 693 or in any subsequent semester, candidate for degree in Performance presents public recital under supervision of major instructor and two other instructors from same area.

3 hours credit

PHILOSOPHY

Office: 2109 Fenton Hall

Kenneth G. Lucey,

Chairperson

PL 502. Philosophy of the Social D Sciences

Philosophical study of the chief problems in the social sciences. Comparison of social sciences with the natural sciences. Special problems of methodology in the social sciences. The nature and types of explanation in the social sciences; methods of testing and evaluating social hypotheses; abstract entities. The theories of historicism, holism, emergence, and individualism. Philosophical consideration of the role of values and the role of ideas in social change.

Prerequisites: one course in philosophy and one in the social or natural sciences or permission of the department.

3 hours credit

PL 510-519. Problems in the D Philosophy of Science

A selection of basic problems in the philosophy of science and epistemology; e.g. problems of demarcation of science from non-science confirmation, realism vs. instrumentalism, sources of knowledge, rationality, the role of metaphysics in science, and the nature of normal science and the nature of scientific revolution.

Prerequisite: 6 hours in philosophy and 6 hours in the social or natural sciences or permission of the department.

3 hours credit

PL 530. Twentieth Century D Philosophy: Its Social and Scientific Significance

A detailed examination of some 20th century philosophical positions and the mutual effects of these positions on society and on the social and natural sciences.

Prerequisite: 6 hours of philosophy or permission of the department.

3 hours credit

PL 538-548. Problems in the D Philosophy of Religion

An in-depth philosophic examination of religion as a dimension of human experience, with special attention given to such problems as the nature of the ultimate, man, and the relationship between them.

Prerequisite: 3 hours of philosophy, or permission of the department.

3 hours credit

PL 555-559. Medical Ethics D

Study of the major ethical issues in medicine, including the concept of autonomy, beneficence, justice, health, disease, mental illness, and scientific freedom, and of such fundamental problems as abortion, euthanasia, allocation of medical resources, patients' rights, and general health policy.

3 hours credit

PL 560-569. Problems in the D Philosophy of Language

Selected problems in the philosophy of language: the communication of novel conceptions; rationalist and empiricist explanations of a natural language; the implications for logic of the underlying structure of language; whether logic can be uncertain; whether language entails an ontological commitment.

Prerequisite: 6 hours in philosophy, or 6 hours in linguistics, or permission of the department.

3 hours credit

PL 570. Philosophy of D Mathematics

Advanced contemporary problems in logic and the philosophy of mathematics, including metamathematics.

Prerequisites: 8 hours in mathematics and 9 hours in philosophy, including logic, or permission of the department.

3 hours credit

PHYSICS

Office: 118 Houghton Hall

Andrea Raspini,

Chairperson

PH 530. Kinetic Theory and D Statistical Mechanics

Maxwell-Boltzmann collision theory. H-theorem, transport equation, quantum statistics, partition functions, equipartition theorem, applications to thermodynamic systems, ergodicity.

Prerequisites: undergraduate preparation in thermodynamics and intermediate mechanics.

3 hours credit

PH 531-532. Mathematical D Physics

Mathematical methods including eigenfunctions and eigenvalues, variational principles, abstract vector spaces, integral equations, Green's functions, partial differential equations of physics.

Prerequisite: ordinary differential equations or equivalent.

3 hours credit each semester

PH 533-534. Electromagnetic D Theory

Potential theory and boundary value problems, electromagnetic field relations, magnetohydrodynamics, Lienard-Wiechert potentials.

Prerequisite: PH 531 or equivalent.

3 hours credit each semester

PH 540. Modern Optics **D**

Green's functions and linear theory, spatial filters, geometrical theory and aberrations, interference, diffraction and image formation, matrix and coherence theory, partial polarization, Fourier Methods.

Prerequisite: partial differential equations or equivalent.

3 hours credit

PH 541. Advanced Dynamics **D**

Lagrangian and Hamiltonian methods, variational principles, relativistic mechanics, transformation theory, oscillations, fields.

Prerequisite: PH 531 or equivalent.

3 hours credit

PH 543-544. Quantum Mechanics **D**

Solutions to wave equations, approximation methods, time dependent problems, vector spaces, matrix formulation, identical particles, scattering, radiation, second quantization.

Prerequisite: PH 531 or equivalent.

3 hours credit each semester

PH 546. Reactor Physics **D**

Nuclear reactions and radiations, reactor theory, instrumentation, control, fuel, shielding, heat transfer, and applications of nuclear reactors.

Prerequisite: PH 432 Nuclear Physics

3 hours credit

PH 570-579. Special Topics **D**

Areas not covered in regular courses. Broad range of advanced topics consistent with teaching and research interests of department.

1-3 hours credit each semester

PH 630. Advanced Nuclear Physics **D**

Current experimental and theoretical topics including nuclear properties and systematic, nucleon scattering, nuclear forces and structure, reactions, decay processes, nuclear spectroscopy.

Prerequisites: PH 432 and 531 or equivalent.

3 hours credit

PH 631. Atomic and Molecular Structure **D**

Quantum mechanical treatment of atomic and molecular energy levels including transitions, fine and hyperfine structure, isotopic effects, beam methods, collision and ionization phenomena.

Prerequisite: PH 543 or equivalent.

3 hours credit

PH 690-691. Research **D**

Experimental or theoretical research in physics including a thesis.

3 hours credit each semester

PSYCHOLOGY

Office: W357 Thompson Hall
Jack Croxton, *Chairperson*

PY 510. Contemporary Issues in Psychology **D**

Critical review of recent contributions to the field, including topics such as motivation, learning, personality, perception, and social influence. Not open to psychology majors.

3 hours credit

PY 520. Psychology of Learning **D**

Critical analysis of major theories of learning. Emphasis on theories developed with infra-human subjects which have implications for human behavior.

Prerequisite: PY 443 or permission of instructor.

3 hours credit

PY 522. Individual Intelligence Testing **D**

Instruction and practice in administration and interpretation of individual tests of general intelligence and special abilities.

Prerequisites: introductory courses in statistics and tests and measurements, and permission of instructor.

3 hours credit

PY 529. Psycholinguistics **D**

An analysis of the acquisition and the utilization of the cognitive rule system which controls the comprehension and production of linguistic information. Particular attention paid to the acquisition of language within a cross-linguistic perspective. Some consideration of the relationship between first and second language acquisition.

Prerequisite: undergraduate preparation in cognitive psychology and/or linguistics.

3 hours credit

PY 550. Studies in Psychology **D**

Exploration in depth of selected topics in psychology. Major focus varies from semester to semester.

Prerequisite: permission of instructor.

1-3 hours credit

SOCIOLOGY / Anthropology

Office: W363 Thompson Hall
Jerry D. Rose, *Chairperson*

SO 570. Directed Study in Sociology **D**

Individualized study under guidance of a member of the sociology faculty.

Prerequisite: permission of instructor.

1-3 hours credit

AN 570. Directed Study in Anthropology **D**

Individualized study under guidance of a member of the anthropology faculty.

Prerequisite: permission of instructor.

1-3 hours credit

SPECIAL STUDIES

Office: W109 Thompson Hall

The Master of Arts in Special Studies (M.A.S.S.) program and the parallel Master of Science degree (M. S. S. S.) are designed to give students the greatest possible flexibility in meeting their educational goals. These programs are intended to provide an advanced education for individuals whose career goals require interdisciplinary study and for those desiring integrated programs not provided by traditional graduate majors.

The specific program of study is designed by the student with the aid of an advisor. The curriculum proposal which is submitted for review and approval must include, with a minimum of 30 hours of graduate courses; (1) a clear statement of educational objectives; (2) a detailed outline of the specific learning experiences needed to achieve these objectives; and (3) a brief description of a proposed culminating project for the program. Normally, no more than 15 of the required hours should be taken in any single department.

Because student programs are individually designed, the culminating research effort - a topic or project explored in depth - is tailored so as to integrate the previous learning with professional and personal goals. This concentrated study can follow the traditional research pattern or can embody more innovative forms and methods. In any case, there must be demonstrated growth in skills, knowledge, or vision.

All work on Special Studies proposals must be coordinated by the Dean for Liberal Studies, with whom proposals are initiated and in whom resides the final authority for approval. Additional information and program planning assistance is available through the office of the Dean for Liberal Studies, W109 Thompson Hall.

SS 660-691. Research A

Directed research leading to the preparation of a final project, essay, or thesis.

Prerequisites: permission of the advisory committee.

3 hours credit each semester

SPEECH PATHOLOGY AND AUDIOLOGY

EDUCATIONAL STANDARDS BOARD
• ACCREDITED •
SPEECH-LANGUAGE PATHOLOGY/AUDIOLOGY

Office: W121 Thompson Hall

Robert Manzella,

Chairperson

The program in Speech Pathology and Audiology is designed to enable students to: (1) earn a Master of Science degree; (2) meet New York State Department of Education academic requirements for permanent certification in the education of the Speech and Hearing Handicapped for those having provisional certificates or certificates of qualification; (3) meet New York State Department of Education academic requirements for licensure in Speech Pathology or Audiology; and (4) meet American Speech and Hearing Association academic and practicum requirements for the Certificate for Clinical Competency in Speech-Language Pathology or Audiology.

The deadline for application is Dec. 1 for the following Fall Semester, and Sept. 1 for the following Spring Semester.

The program has been designated as Licensed Qualified by the New York State Department of Education.

The graduate programs in Speech-Language Pathology and Audiology are accredited by the Educational Standards Board of the American Speech-Language Hearing Association. The department has been designated as an Approved Sponsor for Continuing Education Activities by the American Speech-Language Hearing Association.

Master of Science in Speech Pathology

Departmental requirements for admission to the program without deficiencies:

To be admitted without deficiencies an applicant must have:

A bachelors degree from an accredited institution; completed a minimum of 15 credit hours in courses related to the normal development of speech-language-hearing and/or the sciences related to the use of speech, language and hearing; 9 credit hours in speech-language pathology; and 6 credit hours in audiology. A minimum of 2.75 GPA is preferred. Applicants who do not meet these requirements may be admitted conditionally by permission of the chairperson. A minimum of 18 semester hours in speech pathology and audiology or permission of the chairperson is required for admission to all graduate courses.

Note: A minimum of 375 clock hours of supervised clinical practice is required for graduation, of which at least 250 hours must be on the graduate level. Two hundred and fifty clock hours must be in the major area - speech pathology or audiology.

Program Requirements *Hrs.*

- a. A minimum of 39 semester hours in speech-language pathology/audiology courses, including:

Twenty-one semester hours in speech-language pathology or audiology. Core courses required for all graduate students:

SH 502 Clinical Methods, 1-3 Speech and Hearing	
SH 550 Advanced Audiology	3
SH 599 Experimental Phonetics	3
SH 605 Advanced Clinical Methods & Practice	6
SH 606 Research Design in 3 Speech Pathology and Audiology or equivalent	3
SH 620 Diagnostic Theories and Practice	3

Remaining hours in speech pathology and audiology as advised.

b. Final Comprehensive Examination (Plan I) or Thesis (plan II)
Total 39

Master of Science in Education

In addition to the above, applicants seeking teacher certification must complete all requirements for provisional certification to teach the speech and hearing handicapped.

Recommendations for permanent certification are in accordance with competence-based teacher education guidelines.

SH 500. Language Problems in B Children

Theoretical and practical background of intervention goals that can be applied to children with **language/cognitive** problems. *3 hours credit*

SH 502. Clinical Methods, A Communication Disorders

An application of the student's knowledge from the **classroom to a** clinical situation. **Students assigned to speech/language** and audiological assessments and therapy **at** the college clinic under faculty supervision. Attendance at periodic staff meetings. Completion of three semesters or summer sessions of practicum required. *1 hour credit each semester*

SH 510. Pediatric Audiology B

An introduction to pediatric parameters as they relate to clinical audiology. Study and performance of audiology as applied in pediatric, clinical environments. Emphasis of theoretical and applied research to differentiate normal from abnormal pediatric audition.

Prerequisite: SH 550 or permission of instructor. *3 hours credit*

SH 525. Speech and Hearing D Problems in the Classroom

Methods to assist classroom teacher to improve speech habits and correct minor defects. Recognition of speech defects, cooperation with speech pathologist, **medical** personnel, and family. Demonstration and lectures on classroom management of

speech and hearing problems. *Not open to majors in Speech Pathology and Audiology. 3 hours credit*

SH 590. Communicative D Disorders in the Learning Disabled Child

Disorders of learning as manifested by impaired non-verbal and verbal language. Legal, ethical, psychoeducational implications. Diagnostic and rehabilitative strategies. Stress on interdisciplinary/multidisciplinary -- orientation. *3 hours credit*

SH 531. Industrial Audiology B and Hearing Conservation

An introduction to industrial parameters as they relate to clinical and industrial **audiology settings**. Study and performance of audiology as applied in clinical and field environments. Emphasis of theoretical and applied research to differentiate healthy from unhealthy environments and normal from abnormal audition in industrial employees. *3 hours credit*

Prerequisite: SH 550.

SH 550. Advanced Audiology B

A graduate introduction to acoustics, anatomy and physiology, **and pathology** of the auditory system. Study and performance of audiology as applied in clinical environments. Emphasis of basic and advanced theoretical and applied research to differentiate **normal** from abnormal audition.

Prerequisite: SH 322. *3 hours credit*

SH 560. Studies in Hearing B Research

Advanced study of acoustics, anatomy and physiology, and pathology of auditory system. Study classic, historical, and contemporary theoretical and applied research germane to the basis and development of audiology. Emphasis of reported research to differentiate normal from abnormal audition.

Prerequisite: SH 550. *3 hours credit*

SH 565. Instrumentation in C Communicative Disorders

An introduction in electronic instrumentation in communicative disorders. A theoretical background will be given for each instrument discussed. The focus of the course is directed to the functioning and application ,of various instruments. "Hands-on" experience is emphasized. *3 hours credit*

SH 570. Contemporary Issues C with the Hearing-Impaired

The course will assess contemporary issues related to testing, evaluating and resolving educational and social issues with hearing-impaired children and adults. Field experiences, guest speakers, selected video tapes and other varied course strategies will, where appropriate, be used in the course. *3 hours credit*

SH 575. Craniofacial Anomalies B

Etiology, symptomatology and management of communication disorders related to cleft lip, cleft palate and associated disorders. Focus on interdisciplinary management. *3 hours credit*

SH 580. Electrophysiologic C Assessment in Audiology

Advanced level demonstrations, observations and practical application of measuring responses to auditory evoked potentials, visually evoked potentials, somatosensory evoked potentials, and vestibular reactions in normal and abnormal patients. *3 hours credit*

Prerequisite: SH 550 and/or permission of instructor.

SH 598. Voice Disorders B

The study of deviant voices - causes, effects, and strategies for remediation. *3 hours credit*

SH 566. Experimental Phonetics B

Measurement, description, and analysis of speech, its production and perception. Students become familiar with sound spectrograph as well as other research instrumentation typically employed in research. Designed for students in speech pathology and audiology, and linguistics. *3 hours credit*

SH 600. Phonological Theory B and Disorders

Intensive individualized study of the literature in speech, language, and related disciplines concerning normal and deviant phonology. *3 hours credit*

SH 601. Stuttering Research B

Intensive individualized study of the literature regarding stuttering, fluency, and related speech disorders. *3 hours credit*

SH 603. Neuropathologies of B Speech and Language

Lectures, films, assigned readings, supervised observation in neuropathologies of

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aphasia, cerebral palsy, hearing loss, and related pathologies.

3 hours credit

SH 605. Advanced Clinical Methods and Practice A

Externship in speech-language pathology or audiology. Students assigned to a health care facility, rehabilitation center or speech and hearing clinic. Students perform diagnostics and therapy with patients at the facility under the supervision of a licensed and ASHA certified staff speech-language pathologist or audiologist.

Prerequisites: minimum 21 hours academic course credits; recommendation by department; plus at least two credits of SH 502.

6 hours credit

SH 606. Research Design in Speech Pathology and Audiology B

An introduction to research design and statistical treatment to critically read and generate research. Study of basic and special applications to communication disorders. Emphasis of applied research to the formation and development of communication disorders in clinical environments.

Prerequisite: permission of chairperson.

3 hours credit

SH 607. Directed Studies in Research Methodology - Thesis Research A

One to 6 credits for thesis study. An enrollment in excess of 6 hours is acceptable for a Plan II master's degree, but no more than 6 hours are creditable toward the degree. The minimum acceptable for the degree is 3 hours.

Prerequisite: permission of the chairperson.

1-6 hours credit

SH 609. Independent Study A

Provides advanced graduate students the opportunity to work individually on problems of special concern not available through other course offerings under direction of qualified department member.

Prerequisite: permission of instructor, advisor, or chairperson.

3 hours credit

SH 620. Diagnostic Theories and Practices B

A study of assessment models, strategies, and rationales employed in speech-language pathology and audiology. An application of student's knowledge base to the assessment process.

3 credit hours

SH 625. Topical Seminar in Speech Pathology/Audiology B

Detailed study of selected topics in speech pathology or audiology. Content will change from semester to semester but will focus on a relatively narrow topic or issue of current interest. May be repeated for credit.

3 hours credit

SH 630. Hearing Aids B

An introduction to assistive listening devices. Study acoustical, electroacoustical, anatomical and physiological considerations to optimize auditory reception and perception of speech. Emphasis on theoretical and applied research to assess the contribution of assistive listening devices in clinical and field settings.

Prerequisite: SH 550 or permission of chairperson.

3 hours credit

THEATRE ARTS

Office: 209 Rockefeller Arts Center

Robert Klassen, *Chairperson*

TA 530-531. Selected Studies in D Theatre Arts

In-depth study of various specific areas in the theatre, either literature or production.

Prerequisites: normally a student should have some experience in theatre; permission of the department.

1-12 hours credit

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; 3rd floor, Maytum Hall (Ext. 3109)

Office of Human Resources, 6th 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.

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State University of New York at Binghamton
State University of New York at Buffalo
State University of New York at Stony Brook

UNIVERSITY COLLEGES

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State University College at Buffalo
State University College at Cortland
State University Empire State College
State University College at Fredonia
State University College at Geneseo
State University College at New Paltz
State University College at Old Westbury
State University College at Oneonta
State University College at Oswego
State University College at Plattsburgh
State University College at Potsdam
State University College at Purchase

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Technology at Alfred
State University College of
Technology at Canton
State University College of
Agriculture and Technology at Cobleskill
State University College of
Technology at Delhi
State University College of
Technology at Farmingdale
State University College of
Agriculture and Technology at Morrisville

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Environmental Science and Forestry
State University Maritime College
State University College of Optometry

State University Institute of Technology
at Utica/Rome

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University
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Sciences at Cornell University
New York State College of Human Ecology at
Cornell University
New York State School of Industrial and Labor
Relations at Cornell University
New York State College of Veterinary Medicine
at Cornell University

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Corning Community College at Corning
Dutchess Community College at Poughkeepsie
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and Orchard Park
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Finger Lakes Community College at Canandaigua
Fulton-Montgomery Community College at
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Herkimer County Community College at Herkimer
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Jamestown Community College at Jamestown
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ANDREE PENOT, *Foreign Languages /Literature*
THEODORE F. PETERSEN, *Music*
EVERETT J. PHILLIPS, *Health, Physical Education, Athletics and Dance*
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J. CARTER ROWLAND, *English*
LONIE E. RUDD, *Education*
HENRY F. SALERNO, *English*
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EDWARD N. SAVETH, *History*
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 Syracuse University, M.F.A.
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 Walden University, Ph.D.
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 University of Iowa, M.A.
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 University of California, Ph.D.
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 Harvard University, Ph.D.
Kasling Lecturer, 1975
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 Columbia University, Ph.D.
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 ROBERTA GRAY, *Instructional Support Specialist*
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 Oregon State University, Ph.D.
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 University of Waterloo, Ph.D.
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 Ohio State University, Ph.D.

WAYNE YUNGHANS, *Professor*
 Purdue University, Ph.D.
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SEYED-MAHMOUD AGHAZADEH, *Associate Professor*
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 Lehigh University, M. B.A., C.P.A.
 MORGAN D. DOWD, *Professor*
 University of Massachusetts, Ph.D.
 Catholic University, J.D.
 WILLIAM B. HARTLEY, *Associate Professor*
 University of Wisconsin, Ph.D.
 ARLENE HIBSCHWEILER, *Assistant Professor*
 SUNY at Buffalo, J. D., M.B.A.
 IRVING JACOBS, *Lecturer*
 SUNY at Buffalo, M.A.
 FRANKLIN B. KROHN, *Distinguished Service Professor*
 SUNY at Buffalo, Ph.D.
The State University Chancellor's Award for Excellence in Teaching, 1987
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 Ohio State University, Ph.D.
 JOHN OLSAVSKY, *Assistant Professor*
 Robert Morris College, M. S., C.P.A.
 DIANE PARENTE, *Visiting Instructor*
 Canisius College, M.B.A.
 THOMAS PENCEK, *Assistant Professor*
 Mississippi State University, D.B.A.
 KENNETH J. PLUCINSKI, *Assistant Professor*
 University of Pittsburgh, M. B.A., C.P.A.
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 SUNY at Buffalo, M. B.A., C.P.A.
 MOJTABA SEYEDIAN, *Associate Professor*
 SUNY at Binghamton, Ph.D.
 RODNEY F. SMITH, *Professor*
 University of Massachusetts, Ph.D.
 CHARLES S. TELLY, *Professor*
 University of Washington, Ph.D.
 University of Buffalo, J.D.
 Columbia University, J.S.D.

Chemistry

JAMES BOWSER, *Professor*
 Duke University, Ph.D.
 ANDREA DOMST, *Technical Specialist*
 SUNY College at Fredonia, B.S.
 THOMAS JANIK, *Associate Professor*
 SUNY Buffalo, Ph.D.
 DANIEL JELSKI, *Assistant Professor*
 Northern Illinois University, Ph.D.
 KONRAD KABZA, *Assistant Professor*
 Texas A&M University, Ph.D.
 PHILIP KUMLER, *Professor*
 University of Rochester, Ph.D.
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 HOLLY LAWSON, *Assistant Professor*
 SUNY at Buffalo, Ph.D.

MICHAEL MILLIGAN, *Assistant Professor*
Rensselaer Polytechnic Institute, Ph.D.

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DANIEL W. BERGGREN, *Professor*
Syracuse University, M.S.

President's Award for Excellence in Teaching, 1992

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Ohio University, Ph.D.

CARL D. FERRARO, *Assistant Professor*
Wayne State University, Ph.D.

WILLIAM J. JUNGELS, *Professor*
SUNY at Buffalo, Ph.D.

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University of Georgia, F.M.A.

CHEN-LUNG RINGO MA, *Associate Professor*
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JOHN P. MALCOLM, *Professor*
Syracuse University, Ph.D.

JULIAN McQUISTON, *Professor*
Columbia University, Ph.D.

TED SCHWALBE, *Associate Professor*
University of Southern California, Ph.D.

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Florida State University, Ph.D.

SAMAR EL-MOFTY, *Assistant Professor*
University of Illinois, Urbana-Champaign, Ph.D.

MARWAN M. EL NASSER, *Professor*
Ohio State University, Ph.D.

WILLIAM H. FOELLER, *Professor*
Iowa State University, Ph.D.

JOHN A. HANSEN, *Professor*
Yale University, Ph.D.

AMAR K. PARAI, *Professor*
Southern Methodist University, Ph.D.

JANICE L. PETERSON, *Associate Professor*
University of Nebraska, Ph.D.

AMIN U. SARKAR, *Associate Professor*
University of California at Berkeley, Ph.D.

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JULIUS G. ADAMS, *Associate Professor*
SUNY at Buffalo, Ph.D.

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Indiana University, Ed.D.

Kasling Lecturer, 1976

PATRICK L. COURTS, *Distinguished Teaching Professor*
Michigan State University, Ph.D.

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DAVID E. LUDLAM, *Assistant Professor*
University of Massachusetts, Ed.D.

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DONALD MCFARLAND, *Associate Professor*
Wayne State University, Ed.D.

MELINDA KARNES, *Associate Professor*
Saint Louis University, Ph.D.

LAWRENCE MAHEADY, *Professor*
University of Pittsburgh, Ph.D.

BARBARA MALLEITE, *Associate Professor*
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SUNY at Buffalo, Ph.D.

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PHILIP S. MORSE, *Professor*
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TERENCE D. MOSHER, *Associate Professor*
University of Michigan, Ph.D.

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SUNY at Buffalo, Ph.D.

JOHN RODEN, *Assistant Professor*
Ohio State University, Ph.D.

HAROLD H. ROEDER, *Professor*
SUNY at Buffalo, Ed.D.

NORMA SERRANO, *Instructor*
University of Puerto Rico, M. S. Ed.

KATHYE UNGLAUB, *Instructor*
SUNY at Buffalo, Ph.D.

ALAN H. WHEELER, *Professor*
Syracuse University, Ph.D.

English

RONALD J. AMBROSETTI, *Professor*
Bowling Green University, Ph.D.

MINDA RAE AMIRAN, *Professor*
The Hebrew University in Jerusalem, Ph.D.

JOAN BURKE, *Assistant Professor*
University of Maryland, Ph.D.

PATRICK L. COURTS, *Distinguished Teaching Professor*
Michigan State University, Ph.D.

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ROBERT H. DEMING, *Professor*
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ALBERT A. DUNN, *Associate Professor*
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Michigan State University, Ph.D.

DAVID LUNDE, *Professor*
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JEANETTE McVICKER, *Assistant Professor*
SUNY at Binghamton, Ph.D.

KAREN MILLS-COURTS, *Professor*
SUNY at Buffalo, Ph.D.

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TERENCE D. MOSHER, *Associate Professor*
University of Michigan, Ph.D.

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Northwestern University, Ph.D.

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VAI RAMANATHAN, *Assistant Professor*
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JOHN S. RAMSEY, *Professor*
University of Maryland, Ph.D.

GEORGE SEBOUHIAN, *Professor*
Ohio State University, Ph.D.

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SUNY at Buffalo, Ed.D.

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University of Massachusetts, Ph.D.

STEPHEN WARNER, *Associate Professor*
Indiana University, Ph.D.

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RUTH B. ANTOSH, *Professor* (French)
Indiana University, Ph.D.

OSVALDO CHINCHON, *Associate Professor* (Spanish)
University of Virginia, Ph.D.

THOMAS H. GOETZ, *Distinguished Service Professor* (French)
Syracuse University, Ph.D.

LEONORE LOFT, *Associate Professor* (French)
Columbia University, Ph.D.

BLANCA RIVERA, *Assistant Professor* (Spanish)
Cornell university, Ph.D.

HOWARD B. WESCOTT, *Professor* (Spanish)
Brown University, Ph.D.

CLARK M. ZLOTCHEW, *Professor* (Spanish)
SUNY at Binghamton, Ph.D.

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Kasling Lecturer, 1992

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SUNY at Buffalo, Ed.D.

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Kasling Lecturer, 1983

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Rutgers University, Ph.D.

DEBORAH WELCH, *Assistant Professor*
University of Wyoming, Ph.D.

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SUNY College at Buffalo, M.S.
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SUNY College at Geneseo, M.L.S.
SUNY at Buffalo, M.S.
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SUNY at Albany, M.L.S.

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SUNY College at Fredonia, M.S.

TESFAI KFLU, *Associate Librarian*
University of Wisconsin at Madison, M. S., M.A.

BARBARA L. KITTLE, *Associate Librarian*
SUNY College at Geneseo, M.L.S.

CARRIE NILES, *Associate Librarian*
Syracuse University, M. S.L.S.

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SUNY College at Fredonia, M.A.
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Ohio State University, Ph.D.

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EUGENE ROZYCKI, *Associate Professor*
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SUNY at Buffalo, M.S.

FAWZI M. YAQUB, *Professor*
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MARVIN ZASTROW, *Associate Professor*
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University of Michigan, D.M.A.

THOMAS H. CARPENTER, *Professor*
Boston University, Mus. A.D.

JAMES A. DAVIS, *Assistant Professor*
Boston University, M.M.

JAMES E. EAST, *Associate Professor*
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PHYLLIS O. EAST, *Associate Professor*
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West Virginia University, D.M.A.
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Kasling Lecturer, 1986

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D.M.A.

DANIEL IHASZ, *Assistant Professor*
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HARRY P. JACOBSON, *Assistant Professor*
North Texas State University, D.M.A.

ROBERT JORDAN, *Professor*
The Juilliard School of Music, M.M.
The State University Chancellor's Award for Excellence in Teaching, 1983

CHARLES JOSEPH, *Professor Emeritus*
Curtis Institute of Music, Artist Diploma

DAVID KERZNER, *Instructor*
SUNY College at Fredonia, M.S.

BARRY M. KILPATRICK, *Associate Professor*
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MARGARET KUHL-SMITH, *Adjunct Assistant Professor*
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DONALD P. LANG, *Associate Professor*
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RICHARD C. LARSON, *Professor*
University of Illinois, Ed.D.

W. STEPHEN MAYO, *Associate Professor*
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PATRICK T. McMULLEN, *Professor*
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JULIE NEWELL, *Assistant Professor*
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JANNIS PETERSON, *Lecturer*
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KEITH L. PETERSON, *Professor*
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LINDA N. PHILLIPS, *Associate Professor*
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JAMES PIORKOWSKI, *Visiting Assistant Professor*
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THOMAS A. REGELSKI, *Distinguished Teaching Professor*
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LUCILLE K. RICHARDSON, *Associate Professor*
University of Wisconsin, M.M.

SUSAN ROYAL, *Associate Professor*
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RICHARD SHEIL, *Professor Emeritus*
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ROBERT WELLS, *Instructor*
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CONSTANCE E. WILLEFORD, *Associate Professor*
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LAURENCE WYMAN, *Professor*
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Philosophy

RAYMOND A. BELLIOTTI, *Professor*
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Harvard Law School, J.D.
The State University Chancellor's Award for Excellence in Teaching, 1991

Kasling Lecturer, 1995

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Kasling Lecturer, 1994

GARY JOHNSON, *Adjunct Lecturer*
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AMY KNISLEY, *Instructor*
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MARVIN KOHL, *Professor*
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Kasling Lecturer, 1974

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