George Mason University is an Equal Employment Opportunity and Affirmative Action institution. The University is committed to the principle that access to study or employment at the University and all benefits, privileges, and opportunities afforded by the University should be accorded each person—student, faculty member, or staff member—according to individual merit and regardless of race, color, religion, sex, or national origin. Furthermore, the University is pledged to the promotion of this principle in every phase of the University’s operations and to the use of procedures necessary to insure adherence to this principle.

George Mason University is accredited by the Southern Association of Colleges and Schools as a university approved to offer graduate programs at the master’s level, and is a member of the Council of Graduate Schools in the United States.

The information contained herein and any other information conveyed to students or to prospective students is subject to change at any time by the appropriate University official.

It is each student’s responsibility to know all the rules, regulations, requirements, and academic policies of George Mason University. If doubt should arise with regard to any matter, it is the further responsibility of the student to consult with a faculty adviser or the Dean of the Graduate School.
Graduate School

George Mason University

4400 University Drive
Fairfax, Va. 22030
Graduate Programs Offered

Master of Arts
- Economics
- English
- History
- Psychology
- Spanish

Master of Arts in Teaching
- History

Master of Science
- Biology
- Mathematics

Master of Education
- Elementary Education
- Guidance and Counseling
- Reading
- School Administration
- School Supervision
- Secondary Education
- Special Education

Master of Business Administration
Correspondence
Directory

For Questions About

Admissions requirements
Write or Phone
Graduate Admissions Office at
(703) 323-2115

Advisement
Wait until your application has been accepted. Your adviser will be named.

Application forms
Graduate Admissions Office

Expenses
Bursar at 323-2115

Financial Aid
Director, Office of Career Planning, Placement, and Financial Aid at 323-2176

Graduate School
Dean, Graduate School at 323-2123

Summer Session
Dean, Summer Session at 323-2300

Veterans Affairs
Veterans Office at 323-2381

Visitors are always welcome at the University, and prospective students are especially encouraged to visit the campus, preferably while the University is in session. Administrative offices are open Monday through Friday, but hours vary, and it will be best to make appointments in advance.

George Mason University
4400 University Drive
Fairfax, Virginia 22030

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## GRADUATE ACADEMIC CALENDAR 1975-76

### First Semester
- **Monday, August 18**: Tuition and fees due for prebilled students
- **Monday, August 25**: Advising and registration for all graduate students (registration 3:30-7:30 p.m.)
- **Tuesday, August 26 through Thursday, August 28**: Registration for all students not yet registered (for times see calendar in Schedule of Classes)
- **Friday, August 29 through Monday, September 1**: Labor Day recess
- **Tuesday, September 2**: First day of classes
- **Friday, September 5**: Last day for adding new courses
- **Monday, September 8**: Last day for filing winter degree applications in Office of the Registrar
- **Monday, September 15**: Last day for dropping a course without incurring a grade of F; last day for (partial) refund
- **Friday, September 26**: Patriot’s Day
- **Monday, November 3**: Thanksgiving recess
- **Monday, November 10**: Last day for filing winter degree applications in Office of the Registrar
- **Monday, November 17**: Last day for filing master’s theses in Office of the Registrar
- **Friday, December 5**: Midsemester recess
- **Monday, December 1**: Last day for dropping a course without incurring a grade of F; last day for (partial) refund
- **Monday, December 8**: Winter masters’ theses due in Office of the Graduate Dean
- **Friday, December 12**: Last day of classes
- **Saturday, March 6 through Sunday, March 14**: Midsemester recess
- **Sunday, March 15 through Friday, March 26**: Early registration (for times and priorities see calendar in Schedule of Classes)
- **Friday, April 9**: Last day for Summer degree applications in Office of the Registrar
- **Friday, April 23**: Last day for dropping a course without incurring a grade of F; last day for (partial) refund
- **Friday, April 30**: Last day of classes; recommended filing date for financial aid applications for Summer 1976
- **Saturday, May 1 through Monday, May 3**: Study days
- **Tuesday, May 4 through Tuesday, May 11**: Examinations
- **Saturday, May 15**: Spring commencement
- **Saturday, May 16 through Monday, May 19**: Registration for second term and changes in Office of the Registrar
- **Monday, May 20 through Thursday, June 2**: Summer Session 1976

### Second Semester
- **Monday, June 27**: Registration for first term and eight-week term
- **Tuesday, June 1 through Wednesday, June 30**: First term, except graduate education
- **Monday, June 14 through Wednesday, August 4**: Eight-week term
- **Thursday, June 17 through Monday, July 19**: First term, graduate education only
- **Thursday, July 1 through Monday, July 19**: Registration for second term
- **Tuesday, July 6 through Wednesday, August 4**: Second term, except graduate education only
- **Tuesday, July 20 through Thursday, August 12**: Second term, graduate education only

*These dates are tentative; details and final dates for the Summer Session are published in the Summer Session Catalog which is available in February.*
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General Information

History of the University

George Mason University is the outgrowth of an extension center for higher education established in Northern Virginia in 1948 by the University of Virginia. In 1956 the Board of Visitors of the University of Virginia authorized the establishment of a co-educational two-year branch college to supplement extension offerings in Northern Virginia. This branch opened in September, 1957, in temporary quarters at Bailey's Crossroads. It had 17 students and was called the University College.

The City of Fairfax purchased 150 acres for a permanent branch campus and donated it to the University of Virginia in 1959. Early the following year, the branch was named for the Virginia statesman, George Mason, and was given the status of a community college.

In March, 1966, the General Assembly authorized the expansion of George Mason into a four-year degree-granting institution and gave it the long-range mandate to expand into a university of major proportions. The first senior class received degrees in June, 1968. Graduate programs began in September, 1970, and the first graduate degrees were conferred in June, 1971.

In an attempt to meet the state's long-range mandate, the George Mason College Board of Control, supported by the citizens of Alexandria, Falls Church, Arlington and Fairfax County, worked to acquire 422 additional acres. Thus by July, 1970 the size of the campus had reached 572 acres. In January, 1972, the George Mason College Foundation, Inc. acquired the former Fairfax High School on Route 50 in Fairfax City and this facility is now known as the North Campus.

Having established and fostered the institution through its first fifteen years of growth, the Rector and Visitors of the University of Virginia recommended to the Governor of the Commonwealth of Virginia that George Mason College be separated from its parent institution in February, 1972. The enabling legislation was passed by the General Assembly, signed by the Governor, and on March 1, 1972, the former branch of the University of Virginia became an independent institution under the name of George Mason University.

Mission and Goals of George Mason University

The statute creating this institution, and its location in the most rapidly growing, densely populated suburban area of Virginia, together impose on this University a mission capable of providing leadership in identifying and meeting the higher education needs of all who reside in Northern Virginia. George Mason University accepts the responsibility for carrying on a persisting and aggressive search for ways of serving the educational, research and community service needs of Northern Virginia, the development of its faculty and facilities to meet these needs and those of the State and of the nation to which it can contribute, and the articulation of its capabilities with those of other institutions of higher education in Virginia.

To accomplish this mission, George Mason University will strive to meet the following goals:

Goal 1. George Mason University will seek out and meet the evolving needs of the citizens of Northern Virginia for higher education, research and knowledge-based services. The criteria by which the needs of its constituencies will be assessed will include needs manifested by students enrolling in this and other institutions of higher learning, the advances in education technology as their worthiness is proven, the career opportunities offered by employers in this and other regions, and the needs for moral and cultural development.

This University in framing its offerings will adapt its programs flexibly and imaginatively to cope with the evolution of each of the criteria listed. It will take advantage of its unique laboratory-like setting in a modern suburban area, richly endowed with both industrial and residential facilities and with historic significance, and adjacent to Washington, D.C., a center of national and international activities. Since its resources and capacities will necessarily be limited, it will, in formulating its offerings, continually seek evidence of the substantiality of the needs voiced by students or groups within the surrounding region and the educational feasibility of serving these needs.

Goal 2. George Mason University is committed to develop in those men and women who enroll in its programs those qualities which will make of them cultured, thoughtful and informed men and women. This University accepts the obligation of helping individuals to equip themselves for successful careers in business, in public services, in the arts, or in the professions. In addition it will aspire to develop in each of its students moral and cultural values, minds capable of disciplined reasoning and rigorous decision making, and the innate desire to achieve excellence and leadership in whatever field of endeavor the individual pursues.

To these ends George Mason University will incorporate in all degree programs it offers a substantial core from the arts and sciences designed to develop the ability of each of its graduates to reason effectively, to express himself or herself clearly, and to identify those values for which he or she stands.

Goal 3. George Mason University will endeavor to serve those individuals who will be pursuing programs leading to baccalaureate, graduate and professional degrees and also those individuals who seek to further their previous education but have neither a need for, nor the desire to attain a degree.

To these ends this University will offer (a) carefully designed baccalaureate and graduate programs, articulated with the programs and courses offered by other institutions of higher education in this

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region, (b) an array of courses especially tailored to enable individuals to continue their educations and thus to grow occupationally, and (c) encouragement to individuals to pursue life-long learning in order to fulfill themselves as citizens, as parents and as self-sustaining individuals.

Goal 4. George Mason University will develop, as its student body and its faculty grow in numbers, internal communities that will associate faculty members and students who share common intellectual interests, that will encourage interchange among students and faculty members, and that will overcome the impact of "bigness" by providing foci for association among students. It will achieve this objective by maintaining a complex of separate but inter-related colleges limited in size, each with a distinctive educational task. The educational tasks of these colleges will be to provide programs of demonstrable excellence in (a) the liberal arts, (b) professional fields, (c) graduate study and (d) continuing education.

Goal 5. George Mason University will enhance the accessibility of this University to capable students regardless of race, creed, age, sex, income or geographical location within Northern Virginia. It will do this by expanding its ability to provide financial aid; by continually re-evaluating its admission criteria; by modifications in its own curricula and teaching processes; and by devising methods that make its services conveniently available to all who might benefit from them throughout the Northern Virginia region.

Goal 6. George Mason University will continually strive to develop an academic, social and physical environment that will enable not only the younger student but also the more mature student to broaden his or her perception of self and to formulate new goals. The University recognizes the special need to reach effectively those students who are associated with the University only a few hours each week, and will seek to provide through its academic programs and its student services a responsive environment that will stimulate the development of each student.

Goal 7. The University will attract, support and periodically review the performance of a faculty of men and women of diverse races and creeds from the liberal and applied arts, the sciences, and professional studies who demonstrate excellence in teaching. This faculty will be encouraged and aided in its efforts (a) to further develop competency in identified fields of specialization, (b) to extend the frontiers of research, and (c) to enhance community services. By its excellence and effort, the faculty will forward the University's educational leadership role in the region and be a vital and integral part of the intellectual development and growth of Northern Virginia.

Goal 8. George Mason University will encourage research as an integral part of the learning process by both students and faculty. The University is committed to the idea that learning must comprehend active inquiry, the satisfaction of intellectual curiosity, and the persisting scholarship that broadens and deepens understanding and that for some participants leads to the discovery of new knowledge.

Goal 9. George Mason University acknowledges its role of assisting in the development and improvement of the cultural and intellectual life of the community, particularly Northern Virginia. The University has a significant opportunity to serve in ways that go beyond formal educational programs and community-benefiting research; therefore, the University will encourage its faculty members and students continually to enhance their capabilities in light of community needs and actively to translate those capabilities into community service. Programs which advance this goal will be actively sought for the mutual growth and benefit of George Mason University and Northern Virginia in the years ahead.

Goal 10. George Mason University will continue to plan its physical plant expansion and continually improve its organization, administrative services and procedures to insure for the future a harmonious and pleasant environment, and to enhance the excellence of all its activities. In order to achieve this goal the University will seek both human and financial resources that will cause it to be a dynamic force for improvement of higher education in Northern Virginia, and an example of moral and educational leadership.

(Approved by the Board of Visitors January 8, 1975)
About the University

George Mason University, the state-supported regional university for Northern Virginia, offers a wide range of undergraduate and graduate degree programs at two Fairfax campus locations; courses are also taught at off-campus sites in the region.

The University's Main Campus is located just south of the City of Fairfax at Route 123 and University Drive. The North Campus is situated on U. S. Routes 50, 29 and 211, within the City. Both campuses are 16 miles from downtown Washington, D. C.

Since 1964, when the first four academic buildings opened on the Main Campus, expansion has been rapid. Today, the University serves more than 6,000 day and evening students through the College of Arts and Sciences, the College of Professional Studies, and the Graduate School. A Summer Session provides courses for more than 3,400 students.

Although George Mason is Northern Virginia's regional state university, it serves commuting students from all parts of the Washington area. Over one-third of the student body is more than 25 years of age, and more than three-quarters of the University's students are employed on either a part-time or full-time basis.

In the development of George Mason's 576-acre Main Campus, careful attention has been paid to the preservation of the natural beauty of the area. Parking is located on the perimeter of the campus, with buildings surrounded by groves of trees and park-like recreational areas.

Several new buildings have recently been completed, including Clarence Robinson Hall, an addition to the Student Union, and a five-story tower addition to the Charles Rogers Fenwick Library. Clarence Robinson Hall houses a number of academic departments. The library addition is the first of six such modules scheduled to be built at intervals. The fully completed Student Union, a physical education building, library, lecture hall, an administration building, and several modern classroom buildings are situated on the Main Campus.

The Departments of Business Administration and of Fine and Performing Arts are temporarily located on the University's 16-acre North Campus. The North Campus facility provides special art, music and theater areas, including studio and rehearsal rooms and an 800-seat auditorium. A special library and a bookstore serve students in disciplines housed there; a cafeteria is also available. A scheduled shuttle-bus operates between the two campuses.

Planning is currently completed for the construction of the second phase of Clarence Robinson Hall. The University is studying plans for a second tower addition to the library, for a second phase of the physical education building, and for a permanent administration building.

Counseling, financial aid, job placement, career planning, and health insurance are among the services available to students. Although the University provides no on-campus housing, its Office of Career Planning, Placement, and Financial Aid can assist students in finding suitable housing in the vicinity. Campus clubs, student publications, student government, and intramural and intercollegiate athletics offer students a variety of activities from which to choose.

Library Services. University library services are provided on both campuses. An open stack arrangement encourages direct access to the collections which number 115,000 volumes and 150,000 microform units. Approximately 1,900 current periodicals are received. The library is a selective depository for United States Government publications. Services available to students and faculty at both campus locations include inter-library loan.

Students studying at the University have the research and cultural resources of Metropolitan Washington at their disposal. The many specialized libraries and collections of the National Archives, the Library of Congress, and the Smithsonian Institution are easily accessible.

Theater Project. The Library of Congress has placed on deposit in the Fenwick Library an archival collection of materials produced by the Federal Theater Project in the 1930's. The collection contains 40,000 items, including playscripts, radio­scripts, research data, set and costume designs, photographs, musical scores, and posters.

Consortium Membership

George Mason University is the host institution of the Consortium for Continuing Higher Education in Northern Virginia. In addition to George Mason University the other members are Northern Virginia Community College, University of Virginia, Virginia Polytechnic Institute and State University and affiliate member, Marymount College of Virginia. The Consortium's primary goal is to foster inter-institutional cooperation while broadening the base of learning opportunities for adult students. Specific information is available in the Guide to Higher Education Courses for Adults in Northern Virginia, distributed three times yearly by the Office of the Consortium Administrator, 4210 Roberts Road, Fairfax, Va. 22030.
which allow full expression of their talents and interests.

The University encourages student participation in shaping the character and quality of the institution; it believes that cooperation of students through participation in University life is essential to the development of academic, administrative, and cultural standards beneficial to the University community as a whole.

Student Organizations. Student publications, student government, intercollegiate and intramural athletics, and numerous campus clubs provide opportunities for students to exercise the full scope of their talents. There are approximately 40 student organizations on campus spanning a broad range of interests: political, forensic, dramatic, musical, journalistic, scientific, recreational, business, social, religious, and fellowship. Participation in student activities is limited to bonafide registered students.

Athletics. The intercollegiate athletic program offers competition between the University and colleges in Virginia, and other states on the East Coast. Men's intercollegiate competition includes cross-country, soccer, basketball, wrestling, fencing, baseball, golf and tennis. The University is a member of two national athletic organizations—National Collegiate Athletic Association and National Association of Intercollegiate Athletics.

The University participates in the Mason-Dixon Intercollegiate Athletic Conference. Competition outside of conference play is furnished by American University, University of Virginia, University of Richmond, Georgetown University, George Washington University, U.S. Naval Academy and others.

The women's intercollegiate athletic program is conducted in basketball, volleyball and tennis. The University participates in the Metropolitan Intercollegiate Sports Association for Women competing against Georgetown, Immaculata College, Gallaudet College, American University, Catholic University and others.

The intramural program enables students to participate in sports of their own choosing.

Facilities are available for tennis, basketball, volleyball, flag-football, trap and skeet, cross-country, table tennis, badminton and softball.

The Athletic Council has general supervision over the men's intercollegiate athletic program, the women's intercollegiate athletic program and the intramural program.

Student Union. Most non-academic activities and programs at the University take place in the Student Union which was completed in Spring, 1975. The Offices of Student Government, Dean for Student Services, Director of the Student Union and Activities, as well as those of Career Planning, Placement, and Financial Aid, Counseling Center, Veterans Affairs, Student Publications, Student Organizations, Campus Ministry, and Honor Committee are located in the building.

The Union houses recreational facilities such as an Arts and Crafts Center, game, TV, music, and card rooms and lounge areas; the Campus Bookstore and the United Virginia Bank also provide services in the Union. A snack bar, cafeteria, and rathskeller are on the lower level, with patios on both the north and south sides of the building. The Union also has varied facilities to accommodate meetings.

Counseling and Psychological Services. The University Counseling and Psychological Services Center provides specialized psychological services in educational-vocational testing and counseling, and in personal adjustment counseling. These services aid the student in exploring his interests, personality, and achievement level and assist him in making the most of his opportunities for academic and personal development while in college. The center is staffed by a professionally trained psychologist and counselor. Appointments are recommended.

Career Planning and Placement. The Office of Career Planning, Placement, and Financial Aid assists students in developing career plans and obtaining full time employment upon leaving the University. The major services offered by the office include: (1) job referrals; (2) individual and group counseling on vocational decision-making and job hunting skills; (3) an extensive occupational and graduate school library; (4) employer recruitment program; (5) special career seminars, job fairs; (6) permanent credential files which can be made available to prospective employers.

These services are also available to alumni on a continuing basis.

Part-time and summer employment information is made available to students through listings posted on a bulletin board in the Student Union by the Placement Office. Referrals are made after consultation with a placement interviewer. An effort is made to assist students in obtaining employment that will provide experience in the students' study areas.

Veterans Affairs. The University maintains an Office of Veterans Affairs to
assist veterans, servicemen, their dependents and survivors in obtaining authorized educational benefits. The office also provides support to veterans in adjusting to the exigencies of University life.

To assist in problems which may arise with the Veterans Administration, there is a VA representative available in the office.

Veterans make application to receive benefits for the first time or to change their place of training from another institution to George Mason University. Early contact is advised for all eligible persons seeking entrance to the University to expedite advance payment.

For graduate students registered in the regular session eligibility for full time institutional training consists of nine semester hours, three-quarter time consists of seven semester hours, half time consists of five semester hours. Payments to students enrolled for less than half-time are computed on the basis of tuition, comprehensive fee and building fee. Payments for attendance at Summer Sessions are determined on the basis of an accelerated program. A Veterans Administration Education Loan program provides funds for loans for eligible veterans demonstrating need.

Campus Ministry Association. The Campus Ministry Association is an ecumenical group of clergy and concerned laymen of Judaeo-Christian orientation whose objective is to provide opportunities for service as well as religious, educational and social activities for the University community. It is sponsored presently by the Christian (Disciples), Christian Science, Episcopal, Lutheran, Presbyterian, Roman Catholic and United Methodist Churches. Others are cordially invited to participate. The association draws on the resources of United Ministries to Higher Education and the Council of Churches of Greater Washington.

Chaplains are on campus daily for discussion and counseling with all members of the University community. A counseling and seminar room is available in the Student Union.

Honor System. Until 1972 George Mason University was part of the University of Virginia. As such, the Honor System takes its beginnings back to 1842. As originally formulated in 1842, the Honor System at the university applied only to final written examinations. Through its more than a century of continuous use, the pledge has been extended to all academic work submitted for credit, statements made to the faculty, and other declarations of good faith or intent. Considered reprehensible under the system are lying, cheating, plagiarism, and stealing.

George Mason University established its Honor System on May 14, 1962. It is recognized and approved as an integral part of the University. The essence of the code is that a student's word can be accepted in academic matters without question as truth and that any violation of a student's word is an offense against the Honor Code.

All students and faculty in the University have the duty as participating community members to report to a member of the Honor Committee any alleged violations of the Honor Code. This duty is of importance not only because it enforces the Honor Code, but also because it gives each student the opportunity to express respect for personal integrity and an honest academic community.

The Honor Code is administered by the Honor Committee which is independent of the Student Government and the University's administration. The Honor Committee is a group of students elected from the student body whose primary and indispensable duty is to instill the concepts and spirit of the Honor Code within the student body. The secondary function of this group is to sit as a hearing committee on all alleged violations of the code.

Entering students participate in an orientation given by the Honor Committee. A statement of willingness to conform to and uphold the Honor System is included in the application form for admission to the University.
Housing. The Placement Office in the Student Union provides assistance in locating suitable housing in the vicinity of the University for students living away from home. The University provides no housing facilities of its own at present.

Insurance. The University has no provisions for rendering health services to students. It is the individual student’s responsibility to arrange for needed health services. A combined hospitalization and accident policy is available to students at the University. This policy provides twenty-four hour coverage including vacation periods. Applications and brochures are available in the Office of the Dean for Student Services.

Conduct
The University is a community of scholars in which the ideals of freedom of inquiry, freedom of thought, freedom of expression, and freedom of the individual are sustained. It is committed to preserving the exercise of any right guaranteed to individuals by the Constitution. However, the exercise and preservation of these freedoms and rights require a respect for the rights of all in the community to enjoy them to the same extent. Actions which deprive others of the opportunity to be heard, involve takeovers of buildings that materially and substantially disrupt the educational process, incarceration of or assaults on persons, destruction of property and rifling of files, are incompatible with the nature and function of educational institutions. A student enrolling in the University assumes an obligation to conduct himself in a manner compatible with the University’s function as an educational institution. To fulfill its functions of imparting and gaining knowledge, the Code of Virginia (Section 23:9-2) confers upon the University the responsibility for maintaining order within the University and the right to exclude those who are disruptive of the educational process.

The University may also impose enforced withdrawal as a penalty for habitual delinquency in class, habitual idleness, or any other fault which prevents the student from fulfilling the purposes of enrollment in the University. Further amplification of the Standards of Conduct can be found in the Student Handbook.

Motor Vehicles. The privilege of operating and parking a motor driven vehicle at George Mason University is extended to all students, subject to the following procedures:

Vehicles must be registered with the Department of Security. At time of registration the student must certify that (a) the vehicle has a valid state registration and valid insurance from a recognized insurance company evidencing coverage for public liability in conformance with the laws of the Commonwealth of Virginia; (b) the student has a valid state driver’s license, and (c) the student understands that he or she will be governed by University Motor Vehicle and Traffic Rules and Regulations, a copy of which will be furnished at time of registration of vehicle. A fee of $1.00 will be charged for the first vehicle registered by the student. After the initial vehicle registration, the student may register two additional (family) vehicles without charge. Every registered vehicle shall display in full view the University’s vehicular registration decal, which shall be affixed immediately upon issuance to the left half of the rear bumper. The decal is valid for the period September 1-August 31 of the specified year.

Firearms. The unauthorized possession, storage, display, or use of any kind of ammunition, firearms, fireworks, explosives, air rifles, air pistols or other lethal instruments is prohibited on University property. Any questions regarding this regulation should be directed to the Department of Security.

Non-University Publications. George Mason University students may publish and/or disseminate publications on campus which are not funded by the Publications Board, if they are not in violation of state or local ordinances. Students should exercise this option responsibly. The University assumes no responsibility for the contents of the material published and/or disseminated. Distribution of publications on campus does not signify that the University necessarily approves or supports the contents of the publications.

Solicitors and Salesmen. Solicitors and salesmen, except on official business with the University, are not permitted on campus without permission of the Business Office.

Scheduling Non-Academic Events
Organizations or groups of students wishing to use University facilities for non-academic matters must obtain approval of the Dean for Student Services. Each request must indicate the name of the organization, the type of event for which facility use is intended, and be registered in advance with the Office of the Dean for Student Services.
Admissions

Application Procedures
Initial correspondence concerning application for admission to the Graduate School should be addressed to Office of Graduate Admissions, George Mason University, 4400 University Drive, Fairfax, Virginia 22030, Telephone 323-2104. An application form is submitted. All applicants must make certain that their admission file is complete in every respect. The University assumes no obligation to inform the applicant about missing documents or credentials. Credentials accepted for admission become the property of the University.

Application Dates. Graduate applications and all supporting documents must be received by the University no later than June 15 for the fall semester; November 15 for the spring semester; April 15 for the summer session.

Admission Categories
Applicants to the Graduate School may be offered admission as degree, provisional or non-degree students. Students enrolled in other institutions may be given permission to register on a temporary basis as guest matriculants.
A degree student is one who has met all University and departmental entrance requirements and is pursuing a master's degree at George Mason University on a full-time or part-time basis.
A provisional student is one who has submitted all required documentation for degree status and has been granted temporary admission because he or she does not meet all the minimum academic requirements for degree status but has supplied sufficient evidence of capacity to undertake graduate work. Some reasons for a provisional status would be a borderline grade point average, low test scores, or low grade scores in some undergraduate work in the prospective graduate discipline. After completing not less than six nor more than 12 hours of graduate work and earning a 3.0 GPA or better in this work, the student may apply for degree status. The provisional student's enrollment will be terminated if, after completion of 12 hours, a 3.0 GPA has not been achieved. Graduate credits earned in this status may be applied toward a graduate degree with the approval of the department concerned and the Graduate Dean. Provisional status is offered on the recommendation of the department concerned, with approval of the Graduate Dean.
A non-degree student is one who has been admitted to the Graduate School but does not wish to pursue a degree or has not supplied all required documents for degree status. An applicant requesting non-degree status must submit evidence of having earned a baccalaureate degree from a college or university of recognized standing. A non-degree student may later apply for degree status through his or her department. A student cannot be assured that all courses taken as a non-degree student will be counted toward a degree. Therefore, most graduate students should apply for admission to a degree program.

With approval, a student may apply a maximum of 12 graduate credit hours earned in non-degree status to a degree.
A guest matriculant is a visiting student from another institution who has been approved to enroll for one semester at George Mason University. A guest matriculant must have been officially admitted to another recognized graduate school and certified by his Dean as being in good standing. An application form for requesting guest matriculant status may be obtained from the Office of Graduate Admissions.

Admission Requirements
In general, an applicant must have earned a bachelor's degree from an accredited institution with a grade point average of 2.75 on a 4.0 scale in the last two years of undergraduate work (or have exceptional compensatory qualifications). To be acceptable, a transcript must be sent directly by the Registrar of the institution previously attended to the Office of Graduate Admissions. An applicant must also meet the specific requirements listed in this catalog under a departmental graduate program.

Each applicant for degree status must have official transcripts submitted of all undergraduate and graduate work previously taken.

For degree applicants, letters of recommendation are required by most departments.

In some departments degree applicants must present scores on the Graduate Record Examination (Aptitude Test) or the Admission Test for Graduate Study in Business. Some departments also require the Graduate Record Examination (Advanced Test) in the proposed field of specialization.

Applicants from Abroad
Applicants from abroad who intend to study at George Mason University on student visas are expected to meet all requirements for admission as degree students before being considered for admission, and to pursue a full time program of study upon being accepted.

Applicants whose native language is not English must present evidence of proficiency in English by submitting acceptable scores on the Test of English as a Foreign Language (TOEFL). It is administered in this country and in foreign countries by the Educational Testing Service four times a year. Inquiries may be directed to the University's Counseling Center or to TOEFL, Educational Testing Service, Princeton, New Jersey 08540.
Change from Non-Degree or Provisional to Degree Status

In order for a change from provisional or non-degree to degree status to be considered, a student must submit a written request for change of status. Forms for this purpose are available in each department. Any documents such as transcripts, references, or test scores needed in support of the change of status must also be submitted to the Office of Graduate Admissions.

Approval of Credits Upon Change of Student Status

Credits earned by students in the provisional or non-degree status may be used subsequently in meeting degree requirements if recommended by the faculty adviser and department chairman, and approved by the Dean of the Graduate School. Students admitted in these categories are therefore strongly urged to obtain faculty guidance before beginning coursework. Credits cannot be applied towards a master's degree unless they are specifically approved for that purpose.

Re-Admission

A student whose study at the University is interrupted for any reason for a period of two semesters or more (exclusive of Summer Sessions) must apply for re-admission through the Office of Graduate Admissions. If such re-admission is approved, the student is subject to the academic regulations and requirements in effect at the time of re-admission.

Advisement

At the time of admittance to graduate study, the student is assigned a faculty adviser by the department responsible for his or her program of study. The student should consult with his or her adviser for course approval before each registration.

Undergraduate Students Taking Graduate Courses

An undergraduate student may, with the permission of his or her adviser, the chairman of the department offering the courses, the course instructor, and the Dean of the Graduate School, be permitted to enroll in graduate course work for credit and if successful, apply the credit toward his or her undergraduate degree. An undergraduate in his or her last semester of course work, with a 3.0 average in the major, may request approval from the Dean of the Graduate School to register for reserve graduate credit, i.e., credit to apply toward a graduate degree. The request must be made in writing prior to registration. Forms for this purpose are available in the Registrar's Office.

Extended Studies Enrollment

Students having the necessary background and prerequisites may register for graduate courses through Extended Studies, without seeking admission to the Graduate School. Registration can be accomplished only after an initial interview with a counselor in the Office of Extended Studies. Credit earned may later be applied toward a master's degree, if the student eventually seeks graduate admission and enters a degree program. More information on Extended Studies enrollment may be obtained from the Office of Extended Studies, Telephone 323-2436.

Senior Citizens Enrollment

The Office of Extended Studies administers the Senior Citizens Higher Education Act of 1974 as applicable to the University. Under the terms of this act, eligible Virginia residents over 65 years-of-age with a taxable income of less than $5,000.00 are entitled to enroll in University courses on a space available basis without paying tuition and fees. The act also provides for audit and for non-credit course enrollment without payment of tuition and fees, and without income limitation. Interested senior citizens should contact the Office of Extended Studies.

Summer Session

Information concerning the George Mason University Summer Session is presented in a separate catalog which is available in February from the Office of Admissions.

Test Information

The Counseling Center of George Mason University administers the Graduate Record Examination and the Admission Test for Graduate Study in Business. Information concerning these testing programs and applications to take the tests may be obtained from the Counseling Center, 4400 University Drive, Fairfax, Virginia 22030 (telephone 323-2165), or from Educational Testing Service, Box 995, Princeton, New Jersey 08540.

Graduate Record Examinations

During 1975-76 the Graduate Record Examinations will be administered locally and nationally on the following dates:

<table>
<thead>
<tr>
<th>Testing Dates*</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 18, 1975</td>
</tr>
<tr>
<td>December 13, 1975</td>
</tr>
<tr>
<td>January 10, 1976**</td>
</tr>
<tr>
<td>February 28, 1976</td>
</tr>
<tr>
<td>April 24, 1976</td>
</tr>
<tr>
<td>June 12, 1976</td>
</tr>
</tbody>
</table>

* Closing date for local registration is normally at least four weeks in advance.
** Not administered at George Mason University on this date.

Admission Test for Graduate Study in Business

During 1975-76 the ATGBS will be administered on the following dates:

<table>
<thead>
<tr>
<th>Testing Dates*</th>
</tr>
</thead>
<tbody>
<tr>
<td>November 1, 1975</td>
</tr>
<tr>
<td>January 31, 1976</td>
</tr>
<tr>
<td>March 27, 1976</td>
</tr>
<tr>
<td>July 10, 1976</td>
</tr>
</tbody>
</table>

Transfer of Credit

With the approval of the appropriate department, a student may transfer up to six semester hours of graduate credit taken at other institutions prior to his or her acceptance and enrollment in the George Mason University Graduate School. Credit is normally considered for transfer, upon the request of the student, at the time of initial registration as a degree student. After enrollment as a degree student and with the prior approval of his or her department and the Graduate Dean, a student at George Mason University may, when need exists, earn up to six additional hours of transfer credit for graduate courses taken at other institutions.

Forms for requesting permission to take coursework elsewhere are available in the Graduate Dean's Office. Permission is not ordinarily given for a student to take a course elsewhere for transfer credit during the semester in which the degree is to be awarded. Undergraduate courses taken at other institutions are not transferable for credit to graduate programs within George Mason University. The student should distinguish carefully between the transferability of credit and its applicability to a particular degree program.

In all cases of courses accepted for transfer of credit, including those taken within the Consortium for Continuing Higher Education in Northern Virginia, a minimum grade of B must have been earned and the courses involved must be applicable towards a comparable degree at the institution offering the course. The decision as to the acceptability for work taken elsewhere and presented for transfer credit to a graduate program is the responsibility of the appropriate department, subject to the approval of the Graduate Dean.

Catalogs and Schedules

The student may request all catalogs and class schedules from the Office of Graduate Admissions, telephone 323-2104.
Tuition and Fees

Payment of Tuition and Fees. Tuition and fees for prebilled students are due and payable at the Business Office on or before August 18, 1975 and January 8, 1976. No student is permitted to register for classes until satisfactory financial arrangements have been made with the Business Office (Cashier) including payment of all previous financial obligations still outstanding.

All students are urged to make payments (whether by mail or in person) by personal check, money order or bank draft, made payable to George Mason University.

Deferred Payment Plan. There is a deferred payment plan available for students whose tuition for the semester exceeds $150.00. The student must pay all fees and at least one-third of the tuition as the initial payment, with the remaining tuition payable in two equal installments. Students using the deferred plan must come to the Cashier's Office to make the initial payment and sign a deferred payment contract. Bills for installment payments will not be prepared. It is the student's responsibility to ensure payments of his installments on or before the due dates published.

Failure to make any tuition payment on or before the due date results in a late charge of $5.00 per day, up to three days. Students who have not made payment within three days following the due date will be placed on financial probation for a period of 10 calendar days. If satisfactory arrangements have not been completed by the end of the probationary period, the student will be suspended for the remainder of the semester.


How to Figure Your Semester On-Campus Tuition & Fee Costs

<table>
<thead>
<tr>
<th>Hours</th>
<th>In-State Tuition</th>
<th>In-State Comp. Fee</th>
<th>Building Fee</th>
<th>Per Semester Total Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 @ 27.00</td>
<td>$ 81.00</td>
<td>+ 15.00</td>
<td>+ 12.50</td>
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<tr>
<td>4 @ 27.00</td>
<td>$108.00</td>
<td>+ 15.00</td>
<td>+ 12.50</td>
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<tr>
<td>5 @ 27.00</td>
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<td>+ 15.00</td>
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<tr>
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<tr>
<td>7 @ 27.00</td>
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<td>+ 30.00</td>
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<tr>
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<td>+ 30.00</td>
<td>+ 25.00</td>
<td>325.00</td>
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<td>11 @ 27.00</td>
<td>$297.00</td>
<td>+ 30.00</td>
<td>+ 25.00</td>
<td>352.00</td>
</tr>
<tr>
<td>Full Time</td>
<td>$315.00</td>
<td>+ 30.00</td>
<td>+ 25.00</td>
<td>370.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hours</th>
<th>Out-of-State Tuition</th>
<th>Out-of-State Comp. Fee</th>
<th>Out-of-State Building Fee</th>
<th>Per Semester Total Costs</th>
</tr>
</thead>
<tbody>
<tr>
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<td>$171.00</td>
<td>+ 15.00</td>
<td>+ 12.50</td>
<td>198.50</td>
</tr>
<tr>
<td>4 @ 57.00</td>
<td>$228.00</td>
<td>+ 15.00</td>
<td>+ 12.50</td>
<td>255.50</td>
</tr>
<tr>
<td>5 @ 57.00</td>
<td>$285.00</td>
<td>+ 15.00</td>
<td>+ 12.50</td>
<td>312.50</td>
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<tr>
<td>6 @ 57.00</td>
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<tr>
<td>7 @ 57.00</td>
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<td>454.00</td>
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<tr>
<td>8 @ 57.00</td>
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<tr>
<td>9 @ 57.00</td>
<td>$513.00</td>
<td>+ 30.00</td>
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<tr>
<td>10 @ 57.00</td>
<td>$570.00</td>
<td>+ 30.00</td>
<td>+ 25.00</td>
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<tr>
<td>11 @ 57.00</td>
<td>$627.00</td>
<td>+ 30.00</td>
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<td>Full Time</td>
<td>$675.00</td>
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<td>+ 25.00</td>
<td>730.00</td>
</tr>
</tbody>
</table>

Tuition and Fees

Application Fee ........................................... $ 10.00
Tuition, Full-time (12 or more semester-hours) per semester ... 315.00 Out-of-State Students
Tuition, Part-time (11 semester-hours or less) per semester, per hour ... 27.00 Out-of-State Students
Comprehensive Fee (7 hours or more) per semester .................. 30.00(a) Out-of-State Students
Building Fee, per semester ................................ 25.00(a)
Laboratory Breakage Deposit .................................... 5.00(b)
Diploma Fee (Seniors Only) ..................................... 5.00
Special Registration Fee ....................................... 15.00(c)
Private Instruction (Music; Acting & Directing) ......................... (d)

(a) Students enrolled for six semester-hours or less are required to pay one-half of the Comprehensive and Building Fees,
(b) Chemistry only, Same Laboratory card may be used for both semesters,
(c) See Application for Degree,
(d) $105.00, Music: 14 one-half hour lessons; Acting and Directing: 14 one-hour lessons, Fee is non-refundable after 30 calendar days, Refund prior to completion of 30 days is $75.00, A deferred-payment plan is available.
Checks. Checks in payment of tuition, fees, fines or other obligations to the University should be made payable to George Mason University. Second party checks are not acceptable; pay checks from local business firms payable to the student are the exception to this rule.

Any check returned to the University by the bank will result in a $5.00 penalty fee for the payer. Further, the student who fails to make good such check within five calendar days following notification by the Business Office will be suspended.

Failure to Meet Financial Obligations. Students will not be permitted to register in the next semester; transcripts of record and diplomas will be withheld from students and former students who have failed to meet their official financial obligations. These obligations include traffic and library fines, and student emergency loans.

Refunds. A student withdrawing within five weekdays following the first day of classes shall have tuition and fees refunded in full; however, $10.00 will be withheld to cover the administrative costs.

Tuition only will be refunded on a graduated scale for subsequent voluntary withdrawals only through the last day for dropping a course. The refund scale will be posted on bulletin boards and at the Cashier's Office. It is the student's responsibility to be familiar with the graduated refund scale.

Off-Campus. Students enrolling in off-campus courses are assessed tuition and fee charges at rates independent of those established for on-campus courses.

Other Required Fees
Deposits. Each student enrolled in a laboratory course (Chemistry) is required to purchase from the Cashier at the time of registration one laboratory card priced at $5.00. This is intended to cover breakage or loss of equipment by the student. As such loss(es) occur, the card is "punched" for the cost of the item in question. Unused portions of the card will be redeemed upon presentation to the Cashier at the end of the second semester (but no later than June 30, 1976).

Transcript Fee. A fee of $1.00 is charged for each transcript of record when requested by the student. Payment must accompany the request.

Motor Vehicle Registration Fees. All students who desire to park their vehicles on University property must register them with the University's Security Office and pay a fee of $1.00 for a parking decal. (See Regulations on Motor Vehicles).

Eligibility for In-State Tuition
In order to be eligible for reduced tuition charges, a person must have been domiciled in Virginia for a period of at least one year prior to registration for the semester for which a reduced charge is sought. A person becomes domiciled in Virginia when he is legally capable of establishing a domicile and is present in Virginia with the unqualified intention of remaining here permanently.

A minor (under 18 years of age) is presumed to take the domicile of his father or legal guardian. If his parents are legally separated or divorced and the mother has legal custody, the domicile of the child is presumed to be that of his mother.

Domicile, however, is primarily a question of intent and the burden of proof of domicile is upon the student seeking the benefit of reduced tuition. Students who wish additional detailed information on domicile should contact the Office of Admissions.
Financial Aid

George Mason University has a limited amount of financial aid available which is administered by the Office of Career Planning, Placement, and Financial Aid. This assistance consists of scholarships, grants, loans, and employment. Financial aid awards are based primarily upon financial need and secondarily upon scholarship.

New and currently enrolled students should obtain an application for financial aid from the Office of Career Planning, Placement and Financial Aid and apply as soon as possible. In addition, a "Parents' Confidential Statement" or "Student's Financial Statement" in support of the application for financial aid must be filed with the College Scholarship Service. Students may consult with a member of the office staff for financial aid counseling and further information. The suggested submission date for financial aid applications is May 1.

Federal Programs

George Mason University participates in federally supported programs of student financial aid. The following programs are available to eligible students.

National Direct Student Loan. These are low-interest, long-term loans, available to qualified students according to their demonstrated financial need. Applications are handled through the Financial Aid Office, and require the submission of a need analysis statement through the College Scholarship Service. Repayment begins nine months after completion of the graduate program. Amounts up to $2500 a year are available for graduate students. These funds are usually reserved for full-time students, although exceptions may be made for extraordinary circumstances.

College Work-Study Programs. A program under which qualified students with demonstrated financial need are placed in part-time employment related to their field of study, for which they may earn up to the total amount of their award, at the rate of $2.00 or $3.00 per hour. These jobs may be on- or off-campus, and the form of application is the same as for National Direct Student Loans.

State Loans and Grants

Virginia Graduate Scholarships. The University grants scholarships to graduate students in amounts of up to $500 per academic year. Awards are based on achievement and demonstrated financial need.

Virginia Loans. The University provides loans for qualified students with demonstrated financial need, the conditions of which are similar to those of the National Direct Student Loan.

In-Service Training Program for Teachers. Through the various Division Superintendents of Schools throughout the State of Virginia, a candidate may establish eligibility to receive state funds for graduate study closely related to his field of work. The candidate may use the funds to take previously approved courses at any of a number of colleges or universities throughout the State.
Guaranteed Student Loan Program. The State Education Assistance Authority, through participation agreements with lending institutions of the State, enables those institutions to make long-term personal loans to students to help pay their college and vocational school expenses. These loans are guaranteed to the extent of 90 percent of their principal by the Authority. Applications are made directly to the lending agency, and may be made if the student is enrolled or has been accepted for enrollment at least half-time. The interest rate is 7 percent. In cases of limited income, the federal government will pay the interest until the repayment period begins. Repayment of the loan begins nine months after the student completes his academic program. The total loan may amount to as much as $2,500 per year, not to exceed $10,000 in aggregate, for graduate work.

Fulbright-Hays Awards. Funds for predoctoral study or research abroad are available through this program. Candidates are nominated by a committee of the faculty. Further information concerning this program is available through Dr. Angela Khoury, George Mason University Fulbright program adviser.

The George Mason University Foundation, Inc. Limited funds are available from this source for scholarships or loans for eligible students, especially those for whom other programs are inappropriate. Applications are made through the Office of Career Planning, Placement, and Financial Aid.

Emergency Loan Programs. Short-term, interest-free loans are available to students for emergency situations. Applications for these loans are made through the Financial Aid Office.

Graduate Assistantships. Certain funds are available to graduate students in this category. Applications are made directly to the academic department involved. There are assistantships or laboratory instructorships available to degree students in nearly all departments offering graduate programs.

Other forms of aid are available to graduate students from a variety of sources. Extensive information about these specific programs is available in the Career Library located in the Office of Career Planning, Placement, and Financial Aid.

Registration

For each registration the student, in consultation with his adviser, prepares a schedule of courses designed to fit his individual needs. The course approval form must be signed by the faculty adviser before registration. Each registering student must also complete and sign the Information Card. Information requested on this card is used to set up the student's master record and for numerous statistical reports. George Mason University does not discriminate with regard to race, color, sex, religion, or national origin; the information requested is for reports the University provides to federal authorities and to other agencies collecting data on equal opportunity for education or employment. The card carries the following statement which must be signed by the student: "I voluntarily enroll as a student of George Mason University with a serious desire to reap the benefits of its institution and hereby agree to conform to its rules and regulations, in testimony whereof I subscribe my name." A student failing to complete this card is not a Registered Student. At course registration, degree students will be given preference over non-degree students if the number of applicants exceeds the enrollment limits.

To be registered as a graduate student, an applicant must register for an academic load of which at least half is for graduate credit. Registration in the Graduate School is permissible only after the student has been notified of his admission by the Dean of the Graduate School.

Time and Priorities. The dates, hours and place of registration will be stated in the Schedule of Classes, which is available well in advance of each registration.

Delayed Registration. Any student who fails to present himself at the time specified for registration will not be permitted to matriculate unless he can explain his delay to the satisfaction of the Graduate Dean or his representative. If admitted after explanation, the student will be charged a delayed-registration fee of $5.00-$15.00, a part of which may be waived by the Graduate Dean for proper cause.

Student Identity Card. As an integral part of the registration process, each student is issued without charge an identity card. This card serves as the student's official University identification. It must be presented to borrow library materials, and may be required for admission to University events or when using University facilities after normal operating hours. This card is issued for the student's use, is not transferable, and must be validated at registration each semester.

Student Responsibility. The responsibility for being properly registered rests with the student, who should inform himself concerning all regulations and procedures required by the program of study he is pursuing. Regulations are not waived nor are exceptions granted because students plead ignorance of the regulations.
Academic Regulations

Credit and Grades

Grades and Grade Points. A candidate for a master’s degree at George Mason University is required to present a minimum of 30 hours of graduate credit, in addition to the requirements as specified for a particular degree and by a particular department. A grade point average of 3.0 must be maintained. Grade points (GP) for each semester-hour are assigned on the following scale: A, 4 points; B, 3 points; C, 2 points, D, 1 point; and F, zero points.

If additional work is taken beyond 30 hours, a “B” average must be maintained for all work taken for graduate credit. A report of “Incomplete” for a graduate course will be changed by the Registrar to a failing grade if the course work is not completed and a passing grade submitted by the end of the next semester (exclusive of the summer session). Incomplete marks in thesis courses are not subject to this time limit.

Completion of Undergraduate Preparatory Courses. Graduate students are expected to complete all undergraduate prerequisite or preparatory courses before acceptance into a graduate program. Normally a maximum of one such undergraduate course may be taken as a graduate student and it must be taken during the student’s first semester in the graduate program. All grades for undergraduate courses taken after matriculation as a graduate student will be included in calculating the student’s grade point average for the semester in which the course is taken, as well as for subsequent calculations but the credit hours will not be used in the computation of total hours required for the graduate degree.

Adding and Dropping Courses. In order to drop or add a course, a student must obtain the written permission of the chairman of the department in which the dropped or added course is taught. Forms for this purpose may be obtained from the department secretaries. The last day for adding courses shall be no later than 14 calendar days after and including the first day of classes. Students who drop all course work must also file a withdrawal form. All of the required signatures must be obtained on or before the deadlines shown in the Calendar.

The last day to drop a course without incurring an “F” shall be nine calendar weeks after and including the first day of classes.

A student who discontinues a course without proper permission will receive a grade of “F” in that course.

Academic Probation and Dismissal. A student who, at the end of any semester, fails to maintain a “B” average will be placed on academic probation. (A semester is a period during which academic credit and grades are earned and entered into a student’s record.) The student placed on probation must recover to a “B” average in grade points within two semesters of work taken at George Mason University or be liable to dismissal from the program. Both degree and non-degree students are subject to the same regulations concerning probation and dismissal. A student who fails nine grade points or more below a “B” average at any time after the first semester of study will be subject to dismissal. For purposes of determining probation and dismissal, credit earned outside the University will not be counted.

Academic Load. During the regular session, a minimum full-time academic load for students is nine semester-hours. A normal full-time academic load for students is 12 semester-hours in the regular session. During the Summer Session, a normal full-time academic load for students is nine semester hours for the entire summer session. Permission of the department chairman is required to exceed the normal load.

Auditors. Under certain circumstances a student may be given permission by the appropriate department chairman to audit a course. However, a student may not at a later date take for credit a course which he has previously audited. The usual University fees apply to audit status. Additional information regarding audit status may be obtained from department chairmen.
Attendance. Students are expected to attend the class periods of the courses for which they are registered.

Withdrawal from the University. An official withdrawal form must be obtained from the Office of the Registrar, and must be approved in writing by the Graduate Dean or his representative. To clear the student's record, the application must then be endorsed by the Registrar, the Librarian, the Business Office, and if the student is enrolled in a laboratory course, by the chairman of the appropriate department. When complete, the withdrawal form must be deposited with the Registrar.

When a student withdraws from the University after the last day for dropping a class, each of his instructors is asked to indicate whether the student withdrew passing or withdrew failing. The student's permanent record is marked accordingly.

Failure to comply with the above regulations will subject the student to suspension from the University.

Enforced Withdrawal. The University may impose enforced withdrawal as a penalty for habitual idleness, or any other fault which prevents the student from fulfilling the purposes of enrollment.

Permission to Take a Course Elsewhere. When a student is already enrolled in George Mason University, permission to take a course elsewhere must be secured from the Graduate Dean prior to registering at the other institution. Forms for this purpose are available through department chairmen.

Student Requests. All student requests including those for exceptions to published rules, should be made by petition to the Dean of the Graduate School. These requests should be initiated by the graduate student. They must include the signature and approval of the student's adviser and the department chairman. Student Request Forms for such purposes are available in departmental offices.

Grade Reports and Examinations

Grade Reports. Grade Reports are sent to the students at the end of each semester.

Examinations. Written examinations are held at the end of each semester on the work of that semester. Courses which are predominantly laboratory work are not entitled to an examination during the regular examination period. In such courses an examination may be given in the last regularly scheduled laboratory period. No changes may be made in the announced examination schedule unless approved in writing by the chairman of the department in which the course is offered.

In certain graduate courses the assessment of student performance may be more closely related to written and/or oral papers, and because of the more intensive and continuous demands which should be placed upon students, it would appear appropriate to provide a degree of flexibility in connection with graduate examinations. Therefore, after consultation with his department chairman, the individual faculty member may exercise his judgment regarding the use of a formal examination at the end of the course.

Absence from Examinations and Special Examinations. Absence from examination will not be excused except for sickness on the day of the examination, or for other cause approved by the Graduate Dean. If such absence is unexcused or the examination not taken within ten days, the grade on the course is entered as "F." A student whose absence from an examination is excused may take a special examination within the ten-day period on a date to be arranged between the student and the instructor in charge of the examination.

Degree Requirements

To qualify for a master's degree, a candidate must have been accepted as a degree student, be in good standing, and have satisfied all departmental requirements. Specific departmental degree requirements are listed under the respective graduate programs. In general, the candidate must acquire a minimum of 30 semester-hours of graduate credit, and maintain a 3.0 or "B" average in all courses attempted. At least 18 semester-hours of course work must be completed after the candidate has been admitted to the status of a degree student. A comprehensive examination and a thesis may also be required by some departments. Candidates for graduate degrees currently enrolled are subject to those academic regulations in force at the time of their admission (or re-admission).

Residence. Normally, at least 24 semester-hours must be completed at George Mason University, except as noted under Transfer of Credit. A completed degree program must include a minimum of 18 semester-hours of course work taken by the candidate at George Mason University as a degree student.

Thesis. All candidates for degrees requiring preparation and presentation of a thesis acceptable to their supervisory committee should secure copies of "A Guide for Preparing Master's Theses," which will be available to them in the Office of the Dean of the Graduate School. As indicated in the Guide, prior to enrollment for thesis credit, students will present written thesis proposals to their thesis committee. Theses must be deposited with the proper authorities on or before the date specified in the Calendar published in the Graduate Catalog.

The University cooperates in the program, maintained by University Microfilms, for the publication and microfilming of Master's theses. A degree candidate, therefore, is expected to execute the necessary agreement form covering his or her thesis.

For current costs and procedures contact the Office of the Registrar.

Time Limit. The student must complete department requirements for the desired master's degree within 6 years from the date of his or her matriculation as a graduate student.

Application for Degree. Students who expect to complete graduation degree requirements must secure an Application for Degree form from the Office of the Registrar and return it completed to the Office of the Registrar by the date designated on the Academic Calendar. There is a $5.00 diploma fee which is payable at the time the student submits his Application for Degree.

Commencement. Commencement exercises provide an opportunity for students and their families to share in the experience of the conferral of academic degrees. Degree candidates who do not desire to participate in the formal graduation ceremonies must notify the Office of the Registrar at least 24 hours prior to the date and time of the ceremony.

Second Master's Degree. Course credits already submitted in fulfillment of requirements for a master's degree may not ordinarily be submitted in fulfillment of degree requirements for a second master's degree at George Mason University. For exceptional reasons, a maximum of six semester-hours of credit may be allowed, upon the recommendation of the department chairman and with the approval of the Graduate Dean.
The Graduate School of George Mason University offers a wide variety of degree programs and courses at the master's level. Nearly all graduate courses are offered in late afternoon and evening hours.

Master's Degree Programs

Degree programs at the master's level are offered in the following fields: Biology; Business Administration; Economics; Elementary Education; English; Guidance and Counseling; History; Mathematics; Psychology; Reading Education; School Administration; School Supervision; Secondary Education; Spanish; and Special Education.

Supporting Graduate Courses

In addition to the degree programs listed above, a number of departments which do not have graduate degree programs offer graduate-level courses for elective credit and personal or professional enrichment. Supporting graduate courses, but no graduate degree programs, are offered in: Chemistry, French, Government (Public Administration), and Physics.

Undergraduate-Graduate Courses

A number of departments offer upper-level undergraduate courses which have been approved for graduate credit. A maximum of six semester-hours earned in such coursework may be applied towards a graduate degree. Regulations concerning the applicability of such coursework to graduate programs vary however with the individual departments, and students should consult with their advisers before registering in these courses. Undergraduate courses approved for graduate credit are offered in: Biology, Business Administration, English, Geography, Government, History, Mathematics, Music, Psychology, and Spanish. Further information on approved undergraduate-graduate courses may be obtained from the appropriate department.

In addition to the above courses, upper-level undergraduate courses approved for credit towards the Master of Education degree only are offered in: Art, Biology, Business Administration, Chemistry, English, French, Geography, German, Government, History, Mathematics, Physics, Psychology, Sociology, and Spanish.
Through the use of seminars and independent investigation, greater emphasis will be placed upon original thought and familiarization with current literature than in the undergraduate program. Therefore, students enrolled in upper-division undergraduate courses for graduate credit will be expected to cover the work in greater depth than their undergraduate colleagues.

A candidate may gain up to eight hours of credit in relevant approved courses in the Department of Mathematics, or in one of the physical sciences, but only with the permission of the department chairman concerned.

**Departmental Entrance Requirements.** In addition to fulfilling the general admission requirements, applicants for admission as degree students will be expected (1) to hold a baccalaureate degree in Biology, or the equivalent, with a grade point average of 3.0 (B) or better in all biology courses taken, (2) to submit scores on the Graduate Record Examination including the Advanced Test in Biology, and (3) to have 3 letters of recommendation submitted. Applicants who do not meet all of these requirements or who are judged academically deficient may apply for provisional or non-degree status.

**Departmental Degree Requirements.** In addition to fulfilling the general degree requirements the candidate for the Master of Science degree in Biology must:
1. Acquire two or more semester hours of credit in Biology 591: Current Topics in Biology or, in the case of students enrolled in the Environmental Biology specialization, acquire at least one semester hour of credit in Biology 591: Current Topics in Biology and at least one semester hour of credit in Biology 592: Seminar in Environmental Biology.
2. Complete the required 30 semester-hours of graduate work with not more than two approved undergraduate courses.
3. Satisfy the departmental examiners in a comprehensive examination to be taken at the conclusion of all formal course work.

**Specialization in Environmental Biology.** A student electing the Environmental Biology specialization must take Biology 540: Environmental Biology I [3], and Biology 541: Environmental Biology II [3], as well as the minimum of two semester hours of credit in seminar as previously described. The balance of the program will then be chosen from one of the following three elective areas:
- Pollution Assessment and Management
- Natural Ecosystem Management
- Environmental Planning

Courses available within each of these elective areas are given in the table below. A double asterisk (**) indicates a required course and a single asterisk (*) indicates an elective course. Up to six semester hours of credit in Biology 593: Independent Study in Biology [1-3] and/or Biology 599: Thesis [3-6] may be submitted for electives in any of the three areas. No more than two courses may be taken from the supporting courses allowed outside of the Department of Biology.

Upper division undergraduate courses approved for graduate credit toward an M.S. in Biology appear at the top of the next page.

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**Undergraduate-Graduate Courses in Biology**

<table>
<thead>
<tr>
<th>Undergraduate-Graduate Courses</th>
<th>Environmental Management</th>
<th>Natural Ecosystem Management</th>
<th>Pollution Assessment &amp; Mgmt.</th>
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</table>

**Graduate Courses in Biology**

<table>
<thead>
<tr>
<th>Graduate Courses in Biology</th>
<th>Environmental Management</th>
<th>Natural Ecosystem Management</th>
<th>Pollution Assessment &amp; Mgmt.</th>
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</thead>
<tbody>
<tr>
<td>Biology 512 Experimental Design and Analysis for the Life Sciences [3]</td>
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<tr>
<td>Biology 545 Freshwater Ecology [4]</td>
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<td>Biology 546 Marine Ecology [4]</td>
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<tr>
<td>Biology 547 Analysis of Terrestrial Ecosystems [4]</td>
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<tr>
<td>Biology 549 Biological Resource Management [3]</td>
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<tr>
<td>Biology 565 Environmental Hazards to Human Health [3]</td>
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</tbody>
</table>

**Supporting Courses in Other Departments**

| Business Administration 551 | Quantitative Management [3] | **                      | **                          |
| Economics 552 Advanced Regional and Urban Economics [3] | **                      | **                          |                             |
| Economics 575 Economics of Urban Transportation Planning [3] | **                      | **                          | **                          |
| Government 325 Introduction to Public Planning [5] | **                      | **                          | **                          |

**Undergraduate-Graduate Courses**

The following upper division undergraduate courses have been approved for graduate credit toward the M.S. in Biology. Catalog descriptions appear in the Undergraduate Catalog:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>342</td>
<td>Plant Morphology</td>
</tr>
<tr>
<td>344</td>
<td>Taxonomy of Flowering Plants</td>
</tr>
<tr>
<td>412</td>
<td>Microbial Genetics</td>
</tr>
<tr>
<td>413</td>
<td>Selected Topics in Genetics</td>
</tr>
<tr>
<td>441</td>
<td>Plant Anatomy</td>
</tr>
<tr>
<td>447</td>
<td>Microbial Ecology</td>
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<tr>
<td>448</td>
<td>Symbiology</td>
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<tr>
<td>462</td>
<td>Advanced Cellular Physiology</td>
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<td>464</td>
<td>Plant Physiology</td>
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<tr>
<td>465</td>
<td>Histology</td>
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<tr>
<td>471</td>
<td>Evolution</td>
</tr>
<tr>
<td>473</td>
<td>Field Studies in Biology</td>
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<tr>
<td>480</td>
<td>Ichthyology</td>
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<tr>
<td>482</td>
<td>Ornithology</td>
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<tr>
<td>483</td>
<td>Mammalogy</td>
</tr>
<tr>
<td>484</td>
<td>Vertebrate Paleontology</td>
</tr>
<tr>
<td>485</td>
<td>Herpetology</td>
</tr>
</tbody>
</table>

- = Available as elective within area
** = Required within area
1 = Marine Ecology may be substituted for Freshwater Ecology requirement
Graduate Biology Courses

511 Human Genetics [3]
Prerequisite: Biology 311 or the equivalent. A study of the inheritance of man. Emphasis will be on current problems, including genetic control of metabolic diseases, the effects of radiation and chemical agents in the environment, and directed genetic change. Three lecture hours.

512 Experimental Design and Analysis for the Life Sciences [3]
Prerequisite: An undergraduate course in statistics (e.g., Biology 312), or permission of instructor. An advanced course in the application of probability and statistics to research in the life sciences. Examples to be drawn from environmental, medical, physiological, genetic, and chemical biology.

521 Origin of the Cultivated Plants and Their Impact on Man and Society [3]
Prerequisite: One upper-division botany course, Biology 311 or equivalent, or permission of instructor. The geographic origins of the major economic plants of the world, their economic and cultural significance from prehistoric to modern times, and modern economic and nutritional problems of food distribution. Three lecture hours.

531 Food, Energy and Insects [3]
Prerequisite: A previous course in entomology or permission of instructor. The history and future of man's competition with insects in the fields of agriculture and medicine. Three lecture hours.

532 Animal Behavior [3]
Prerequisite: Biology 324 or permission of instructor. A study of the ecological aspects of animal behavior. Three lecture hours.

540 Environmental Biology I [3]
Prerequisite: A course in ecology, or permission of instructor. A course for ecologists and environmental biologists in ecological patterns resulting from biologic adaptation to climates and weather, tectonics, weathering and soil formation, and surface and ground water movements. The basic descriptive and dynamic characteristics of the physical environment on both a global and regional scale, with emphasis on their effects on plant and animal species and communities. Three lecture hours.

541 Environmental Biology II [3]
Prerequisite: A course in ecology or permission of instructor. The biological effects of modern man and his activities on the environment. Air-borne, water-borne, and solid "waste" material will be considered with respect to sources control, and effects on the ecosystem. Air, water, and land resource utilization will be introduced. Three lecture hours.

544 Advanced Plant Systematics [3]
Prerequisite: Biology 344 or equivalent. A study of the morphology and specialization of the more complex families such as Poaceae, Cypripedaceae and Asteraceae. The lab emphasizes identification of specimens and acquaintance with taxonomic literature. One lecture hour, four laboratory hours.

545 Freshwater Ecology [4]
Prerequisite: A course in ecology. The physical and chemical features of freshwater lakes and streams and the relationship to the biota. Local streams and lakes will be investigated. Three lecture hours, three laboratory hours.

546 Marine Ecology [4]
Prerequisite: A course in ecology, The physical and chemical features of marine environments and their relationship to the biota. Extended field trips will be made to localities on the Chesapeake Bay and Atlantic Ocean. Three lecture hours, three laboratory hours.

547 Analysis of Terrestrial Ecosystems [4]
Prerequisite: A course in ecology. Knowledge of statistics is recommended. Ecosystem organization in relation to patterns of energy flow and mineral cycling: functional composition of major world ecosystems and discussion of ecosystem models. Laboratory work will emphasize techniques of estimating biomass ecosystem components and measuring rates of ecosystem processes. Three lecture hours and three laboratory hours.

Prerequisite: A course in ecology and permission of instructor. A course in evolution and knowledge of calculus is recommended. A survey of ecological models and theory. Topics to be covered include population growth and regulation, competition, predator-prey relationships, and models of community structure. Three lecture hours.

549 Biological Resource Management [3]
Prerequisite: Biology 548, or permission of instructor. Modern ecological theories and methods applied to biological resource management covering problems from fisheries to forestry. Population modeling, problems in achieving optimum productivity of specific resources, application of system analysis. Three lecture hours.

552 Selected Topics in Zoogeography [3]
Prerequisites: Biology 271, 471, or permission of instructor. Students will prepare a seminar and a short research paper on a zoogeographic problem involving either fossil or extant organisms. Emphasis will be placed on vertebrates. Three lecture hours.

555 Selected Topics in Plant Biology [3]
Prerequisites: Eight semester-hours of credit in Introductory Biology, one upper division course in botany, and permission of instructor. Problems in contemporary botany will be discussed. The topic will depend upon the specialty of the instructor. Three lecture hours.

562 Problems in Development [3]
Prerequisite: A previous course in embryology or developmental biology or permission of the instructor. Readings and seminars utilizing the current literature in developmental biology. Emphasis is placed on major problems including those of morpho-genetic movements, differentiation, regeneration, aging and malignancy. The student becomes familiar with experimental organisms and systems of unique value in developmental biology. Three lecture hours.

566 Environmental Hazards to Human Health [3]
Prerequisite: A course in animal physiology or permission of instructor. Threats to human health resulting from the impact of man's industries and activities on the environment. Physiological effects of chemical pollutants of air, water, and food; problems from excessive noise, radiation, and over-crowding. Methods of identifying, evaluating, and controlling problems are considered. Three lecture hours.

571 Human Evolution and Ecology [3]
A materialistic study of the evolution of man and his prehistoric, historic and contemporary relationship with the natural environment. Three lecture hours.

573 Evolutionary Taxonomy [4]
Prerequisite: A previous course in evolution equivalent to Biology 471 or permission of instructor. A study of modern methods and principles of animal classification, and their application to systematic problems in the laboratory. Three lecture hours, three laboratory hours.

591 Current Topics in Biology [1]
One seminar hour each week.

592 Seminar in Environmental Biology [1]
A study of selected current problems in environmental biology. Topics of discussion will vary from term to term. One seminar hour each week.

593 Independent Study in Biology [1-3]
Prerequisite: Eight hours of graduate credit in biology and permission of the supervising instructor. A library, laboratory, or field investigation under the guidance of a member of the faculty. May be repeated up to a total of three credit hours.

599 Thesis [3-6]
The thesis is based on a laboratory or field investigation conducted under the guidance of a member of the faculty. The number of semesters beyond two over which work on the project may be extended will be at the discretion of the supervisor. Students who have taken Biology 593 will receive three to five [3-5] credits upon completion of the thesis, with the total credits received for both Biology 593 and Biology 599 to be six [6]. Students who do not take Biology 593 will receive six [6] credits upon completion of the thesis.
Department of Business Administration

Professor King (Chairman)
Associate Professors Sims, Tongren, Zieg
Assistant Professors Birrer, Fox, Marchione, Siff, Sood, Stein-hauer
Lecturers Marrella, Miller, Pettit, Rahn, Rans

Master of Business Administration
This program is designed to provide a high level of professional education in the several functional areas of business administration. It is intended that this graduate program will serve:
1. Students who have recently earned the baccalaureate degree, either at George Mason or at other colleges, and who wish to continue their education at the master's level,
2. Persons employed in business and government who hope to further their professional careers by earning a degree at the master's level,
3. Students who intend to continue toward the D.B.A. degree at some other institution.

Departmental Entrance Requirements. In addition to fulfilling the general entrance requirements the applicants for the Master of Business Administration must:
1. Pass the Admission Test for Graduate Study in Business. Normally, a score of 500 or better is required. A provisional or non-degree student may be accepted as a degree student if he presents a satisfactory score on the ATGSB Test, or if he has earned an average of 3.25 or better on at least nine hours of graduate work.
2. Submit three letters of recommendation from professors with whom the applicant has studied or from others directly familiar with his professional competence.
3. Have an undergraduate Business Administration preparation, including the following undergraduate courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Principles of Economics</td>
<td>6</td>
</tr>
<tr>
<td>Introductory Accounting</td>
<td>4-6</td>
</tr>
<tr>
<td>Statistics</td>
<td>3-6</td>
</tr>
<tr>
<td>Fundamentals of Management</td>
<td>3</td>
</tr>
<tr>
<td>Introductory Marketing</td>
<td>3</td>
</tr>
<tr>
<td>Introductory Finance</td>
<td>3</td>
</tr>
<tr>
<td>Business Law</td>
<td>3</td>
</tr>
</tbody>
</table>

Candidates who have completed their undergraduate work in another discipline must complete the courses listed above prior to acceptance in the MBA program. These candidates should consult an MBA adviser to determine if undergraduate work previously taken will fulfill any of the above requirements.

Departmental Degree Requirements. A candidate must fulfill the general degree requirements and the following:
1. Each candidate must complete the following MBA core courses unless, in the opinion of the Business Administration Department, the candidate has had previous work at the graduate level and may be granted exemption:

   - BA 501 Managerial Accounting
   - BA 511 Cases in Financial Administration
   - BA 521 Cases in Managerial Accounting
   - BA 531 Computer Systems for Management
   - BA 551 Quantitative Methods of Managerial Analysis
   - BA 591 Cases in Organizational Behavior
   - BA 595 Business Policy

Note: Provisional students and those non-degree students contemplating degree status should complete nine of their first 12 graduate hours from core courses BA 501, 511, 521, 531, 551, and 591.
2. Each candidate must also complete at least two graduate courses in one of the speciality areas:
   - Accounting
   - Administrative Management
   - Financial Management
   - International Business
   - Managerial Economics
   - Marketing Management and Research
   - Quantitative Methods

3. A maximum of six hours of elective credit will be allowed provided they are in a related field and have prior approval of the Business Administration Department.
4. No credit is granted for work done in absentia or without formal instruction.
5. Upon completion of 30 hours of course work, including the MBA core and specialty requirements, the student may elect one of the following options to fulfill the final 6 hours of the 36 hour requirement for the degree:
   (a) Thesis, A maximum of six credit hours may be earned.
   (b) Additional course work and research. The student will take one additional course on an elective basis, and the Seminar in Business Research,

* Applicants who have a nonbusiness baccalaureate may take an accelerated four semester-hour course; otherwise, six semester-hours are required.
** When an applicant has taken a three-hour course (covering up to and including linear regression, analysis of variance, and time series analysis) which is not one of a sequence, it will suffice for the statistics prerequisite. Also, an applicant who has a nonbusiness baccalaureate may take an accelerated four semester-hour course. Otherwise, six semester-hours are required.

http://catalog.gmu.edu
Undergraduate-Graduate Business Courses

A maximum of six semester hours in approved undergraduate courses, taken while the student is registered in the MBA program, may be accepted in this program. The following courses have been approved for graduate credit. Catalog descriptions appear in the Undergraduate Catalog.

BA 412 Marketing Management [3]
BA 433 Advanced Financial Management [3]

Graduate Business Courses

NOTE: MBA core courses and BA 598 offered each semester, BA 502, 503, 504, 505, 506, 507, 508, 509, 553, and 572 offered once every two years. All others offered once each year.

501 Managerial Accounting [3]
The use of accounting data for corporate financial planning and control. Topics include profit planning, relevant costing, budgeting, measurement of performance and product costing. Lecture and discussion.

502 Financial Accounting Theory [3]
Theoretical and conceptual foundations examined. Current literature and theories studied to provide coverage of postulates, assumptions and standards underlying measurement criteria and practices of financial accounting. Lecture and discussion.

503 (formerly 515) Federal Taxation and Business Planning [3]
Analysis of federal taxation of business enterprises. Consideration of organizations, acquisitions, mergers, spinoffs, and other diversities, from viewpoint of profit planning, cash flow and tax deferment. Emphasis on tax problems of corporations. Lecture and discussion.

504 Corporate Financial Reporting [3]

505 Accounting Systems [3]
Prerequisite: Business Administration 501. The study of modern concepts for accounting systems. Includes accounting systems design and integration with other information systems. Case analysis and discussion.

506 Advanced Auditing Theory and Practice [3]
Prerequisite: Business Administration 501. The study of generally accepted auditing standards and the theory supporting them. Application of auditing techniques, including statistical sampling. Legal liability of the auditor, role of the auditor in securities regulation, and auditing in a computerized environment. Lecture and case study.

507 Fund Accounting [3]

508 Seminar in Controllership [3]
Prerequisite: Business Administration 501. The study of the nature and scope of the controllership function in public or private organizations, particularly in regard to the development of policy and the evaluation of performance. Lecture and case study.

509 Seminar in Accounting [3]
Prerequisite: Completion of 24 semester hours in the graduate program. Study of selected areas in accounting theory, practice and methodology and the influence of selected aspects of other disciplines upon the development of accounting concepts. Research and discussion, (May be repeated for credit once).

511 Cases in Financial Administration [3]
Applying the theories of finance to the formulation and application of policies. Internal financial analysis; financial forecasting; management of assets, rate-of-return; capital formation. Lecture and discussion.

512 Security Analysis [3]
Principles and techniques for analysis of individual security issues of private and public corporations. Determination of criteria for selecting and protecting security holdings. Distinguishing speculative from growth and income securities.

521 Cases in Managerial Marketing [3]
The application of qualitative and quantitative techniques in approaching various marketing situations. Emphasis on the use of marketing research, product planning, pricing and target market determination. Case discussion, readings.

522 Marketing Seminar [3]
Selected problems in contemporary marketing. Developing new market segments. Independent research projects and computer marketing games, Lecture, discussion, and laboratory.

531 Computer Systems for Management [3]
Study of computers and their effect on management process. Approaches to analysis, design, implementation and use of computer information systems. Both hardware and software. Lecture and laboratory.

541 Seminar in Personnel Administration [3]
Current and emerging theories and practices of manpower management. Problems of whitecollar and professional employees in ‘knowledge’ industries. Research in contemporary problems, Cases and discussion.

551 Quantitative Methods of Managerial Analysis [3]
Scientific approach to managerial decision making. Systems analysis and model development, using statistical decision theory, linear programming and multivariate methods, are applied to business problems. Lecture and laboratory.

562 Management Science [3]
Introduction to operations research techniques and their application to managerial decision making. Concepts, Markov processes, queuing theory, inventory models, PERT and CPM, mathematical programming, Research, lecture, and laboratory.

563 Seminar in Applications of Management Science [3]
Prerequisite: Business Administration 552. Focuses on the problems of model development and implementation involved in the practice of operations research in management science. Selected studies in both classical and contemporary methodologies; case analysis, research.

561 Managerial Economics I [3]
The use of economic theory as it applies to specific business situations and decisions. Production levels, price determination, costs, competition, profits, supply/demand, Lecture and discussion.

562 Managerial Economics II [3]
The application of economic analysis to business management; government-economic policy; the use of national economic statistics; interpreting economic trends and developments; forecasting. Current economic problems and their effect on business. Lecture, cases, and discussion.

571 Theory and Policies of International Business [3]
Management of international business operations as segments of U.S. firms. Problems of political stability, operations in developing countries, influences of U.S. trade and foreign policies. Lecture and discussion.

572 International Business Management [3]
Prerequisite: Business Administration 571. Analysis and discussion of problems in international business. Emphasis on international marketing and sales strategies. Financial considerations in the international context; and operating policies and procedures of multinationals, Case studies, discussion.

573 Cases in Organizational Behavior [3]
Study and application of principles of individual and group behavior to the solution of human problems in organizations. Relationships with superiors and subordinates in formulating and accomplishing personnel policies. Case discussions and research.

592 Purchasing and Materials Management [3]
Principles and practices of purchasing and materials management for the private firm, within the broader context of an industrial materials management system. Governmental procurement practices examined to a limited degree. Case discussion, readings, and research.

593 Seminar in Comparative Business Management [3]
Comparative analysis of business practices and management systems in different countries and under different economic, social and political systems. Generic characteristics of management and business enterprises as modified in varying environments. Seminar reports and term paper.

594 Small Business Ventures and the Entrepreneur [3]
A study of small business and its economic, competitive, and social environment. Lectures, case studies, and research are used to illustrate and develop solutions to potential problems of initiating, organizing, and managing a small business.

595 Business Policy [3]
Prerequisite: Completion of 27 graduate semester hours in business. Examines entrepreneurial functions in business: determination of the field of business in which the firm will operate, its goals, corporate strategy to reach those goals, and basic policies to implement the corporate strategy. Cases, readings, and discussion.

598 Seminar in Business Research [3]
Prerequisite: Completion of 30 graduate semester hours in business. Study of research design plans, methodologies, data collection and analyses and their application to business research projects. Student will prepare a written report covering an approved research topic in the area of his major.

599 Thesis [6]
Department of Chemistry

The Department of Chemistry offers the following courses in support of other graduate programs.

500 Selected Topics in Modern Chemistry [3]
Chemical topics of current interest from areas in biochemistry and in physical, organic, inorganic and analytical chemistry. Recommended for teachers of general science and chemistry.

501 Laboratory Demonstration Techniques in the Teaching of Chemistry [3]
A laboratory course developing proficiency in the conducting of laboratory demonstrations. Recommended for teachers of chemistry and general science.

Department of Economics

Professor Snavely (Chairman)
Associate Professors Bennett, Bloch, Hayn, Phillips
Assistant Professors Chung, Cohen, Cummings, Nagarajan, Soloman, Wiest

Master of Arts in Economics

This program is designed to provide students with the fundamentals of economic analysis and with specialized knowledge of the various fields offered. The program is designed to serve:

1. Students with recent baccalaureate degrees who wish to become qualified for employment with the numerous institutions, both public and private, in the metropolitan area and elsewhere that hire economists.
2. Individuals presently employed in business and government who desire to further their professional careers through graduate training in economics.
3. Students who intend to continue their advanced education toward a Ph.D. in economics at other institutions of higher learning.

Departmental Entrance Requirements. In addition to fulfilling the general entrance requirements the applicant will normally be expected to hold a baccalaureate degree in economics. A student with an undergraduate major in a field other than economics may be admitted to the program if his record demonstrates sufficient background in economics and allied fields. The Department requires that undergraduate deficiencies be made up by completion of appropriate remedial work taken without graduate credit. Before admission to degree status, a student must either submit satisfactory Graduate Record Examination scores or successfully complete 12 hours of graduate coursework in non-degree status.
Departmental Degree Requirements. The student must meet all the general requirements for a degree. In addition, the master's program in economics requires 30 semester-hours of graduate credit, with a thesis option for which up to six semester-hours of credit may be granted. All students are required to take at least six semester-hours of graduate theory. Those electing the non-thesis option are required to take Economics 544: Econometrics I, a three credit-hour course. In special circumstances the department chairman may allow a student to apply up to six semester-credits toward the required 30 credits from electives chosen from graduate courses in business administration and government.

Graduate Economic Courses

500 Current Issues in Economics [3]
Prerequisite: Graduate standing or permission of the instructor. A special course for students with little or no background in Economics. Topics will include supply and demand, the operation of a free market system, stock and bond markets, and the role of the U.S. in the world economy. Current economic problems will be discussed. This course may be used in partial fulfillment of the course requirements in the teaching discipline for the master's degree in Education.

501 Microeconomic Theory [3]

505 Welfare Economics [3]
The topics covered include Pareto optimality, social welfare functions, the voting paradox, indifferences, consumer surplus, output and price policy in public enterprise. Qualifications of the basic welfare theorem caused by noncompetitive market structures, external economies and diseconomies and secondary constraints. As time permits, Kaldor, Hicks, Scitovsky, Arrow, Little, Bergson and Samuelson will be discussed.

507 Monetary Theory and Policy [3]
Theory of money, financial assets, and economic activity. Theory of the mechanisms through which central banking affects economic activity and prices. Analysis of the demand for money and its relationship to economic activity. The development of monetary theory with emphasis on current theories and controversies in the field.

513 Macroeconomic Theory [3]
 Classical, neoclassical, Keynesian and post-Keynesian theories of income and employment determination. Theories of inflation and growth. The demand for money and its implications for the effectiveness of monetary vs. fiscal policy.

516 Macrodynamics Economics and Economics of Technical Change [3]
Classical and modern growth theories including "golden rule paths." The causes of business cycles and an analysis of the NBER's efforts in measuring and predicting cycles. Qualitative and quantitative aspects of technical change at the microeconomic and macroeconomic levels. Recent developments in large macroeconomic forecasting models.

517 Seminar in Monetary Theory and Policy [3]
Selected topics of current interest will be discussed.

520 Labor Economics [3]
Formal models of labor demand, supply, utilization and wage determination. The determination of factor shares in an open economy. The theory of collective bargaining and the impact of trade unions on wage rates and resource allocation. The measurement, types, and causes of unemployment. Benefit-cost analysis of manpower training and development projects.

521 Seminar in Labor Economics [3]
An intensive study of union and management decision-making processes, the government's role in labor negotiations and dispute settlement, the economic analysis of discrimination and poverty, and the effectiveness of wage-price controls.

533 Public Finance [3]

541 Mathematical Economics I [3]
Among the topics to be covered are set theory, functions, differential calculus, integration, series, and matrix algebra, with the special emphasis on the economic applications.

542 Mathematical Economics II [3]

544 Econometrics I [3]
Techniques of estimating relationships among economic variables. Introduction to multiple regression and problems associated with the single equation model—autocorrelation, multicollinearity, and heteroscedasticity.

546 Econometrics II [3]
Econometric models and simultaneous equation systems. The problems of identification of parameters and least squares bias. An analysis of alternative estimation methods and block recursive systems.

552 Urban and Regional Economics [3]
Prerequisite: Economics 501. The economics of regional development and metropolitan growth, including the locational decisions of households and firms, and problems associated with high density urban economic activity, such as neighborhood effects, traffic congestion, pollution, discrimination and spacial monopoly.

555 Resource Economics [3]
Introduction to benefit-cost and cost-effectiveness analysis in the context of resource management in the public sector. Emphasis on the development of water resources by the public sector and the experience of the Army Corps of Engineers and Bureau of Reclamation in project selection. Problems of uncertainty, time horizon considerations, joint costs, multiple benefits, non-quantifiable benefits and costs.

560 Economic Development [3]
An analysis of the forces contributing to and retarding economic progress in developing countries. The role of foreign trade, economic integration, foreign investment, multinational corporations and technological transfers. Development strategies, including balanced vs. unbalanced growth, import substitution and planning.

563 Seminar on Latin American Development [3]
An examination of economic characteristics and recent economic development of Latin America. Topics include industrialization and import substitution, the rural sector and agrarian reform, population and unemployment; foreign trade, and economic integration; development finance, foreign investment and assistance.

570 Industrial Organization and Public Policy [3]

573 Seminar in Industrial Organization [3]
Topics will be selected from the following: the centrifugal and centripetal forces affecting aggregate and industry concentration; the impact of market structure on the rate of innovation; concentration and oligopolistic price behavior; constraints on oligopolistic pricing; vertical integration; traditional antitrust policy, regulation and state ownership.

575 The Economics of Urban Transportation Planning [3]
An examination of issues and problems in urban transportation planning using various analytical techniques, the quantitative transportation planning process, the transportation model, pricing policies and congestion, transportation planning for the future, techniques of evaluation, environmental impact, socio-economic impact.

580 Comparative Economic Systems [3]
The theory and practice of capitalism, socialism and corporatism are considered in historical perspective. Includes examination of the economies of representative contemporary countries.

581 History of Economic Thought [3]
The development of economic analysis. Major figures in the history of economic thought and the tools of analysis they created. Major emphasis on the classical, neoclassical and Keynesian theories.

590 International Trade and Finance [3]
The international mechanism of adjustment: price, exchange rates, income changes, and direct as well as indirect controls. The theory of trade: comparative costs and the gains from trade, Commercial policy and customs unions, Private and public capital transfers, The role of the International Monetary Fund, World Bank, and other international agencies.

598 Directed Reading and Research [3]
Independent reading and a research paper on a topic agreed to by the student and a faculty member.

599 Thesis [3-6]
Those students who take Economics 598 and then elect the thesis option will receive three credits for Economics 599 upon completion of the thesis. Those students who do not take Economics 598 will receive six credits for Economics 599 upon completion of the thesis.
Department of Education

**Professors** Snyder (Chairman), Azarowicz, Joy, Montebello, Schindler

**Associate Professors** Bindel, Carroll, Edgemon, Evans, Gilstrap, Martin, Schuchman, D. Smith, J. Smith

**Assistant Professors** V. Austin, Duck, Dzama, Gair, Given, Gray, Keller, Perkes, Repp, Shelton, Snoddy

**Lecturers** Armstrong, B. Austin, Bouey-Yates, Bowen, Brown, Clayton, Crosby, Frey, Gaddy, Herold, Leedy, Tankard

**Master of Education Programs**
The Department of Education offers the Master of Education degree in the following fields: Elementary Education, Guidance and Counseling, Reading, School Administration, School Supervision, Secondary Education, and Special Education.

**Departmental Entrance Requirements.** In addition to fulfilling the general entrance requirements the applicant must:
1. Possess a temperament appropriate for the teacher as required by Virginia Certification Regulations.
2. Meet specific requirements for the program desired. The entrance requirements for each program are shown immediately preceding the program outline.

Students admitted provisionally will normally be required to complete a course in Area I, II, or III of the sample programs before being considered for admission as degree students.

**Departmental Degree Requirements.** In addition to fulfilling the general degree requirements the candidate must:
1. Complete the graduate program in which enrolled.
2. Pass a comprehensive examination covering the graduate program in which enrolled.

Students having an interest in research may elect a program requiring the preparation of a thesis. Students electing a thesis must include within the requirements for their program the following courses: Education 590, 591 and 599. Students are not limited to the elective courses shown in the sample programs but may choose other courses. All students must develop a program in consultation with their advisers and secure the approval of the Department of Education.

**Program Outlines**
The following program outlines are presented in order to give an idea of the type of program a prospective applicant might pursue. It is emphasized that there is considerable flexibility when a program is designed for an individual student.

**Elementary Education**
**Master of Education in Elementary Education.** This program is designed to improve the competence of teachers who have completed a basic program in preparation for teaching.

**Entrance Requirements**
The applicant must
1. Provide evidence of certification at the Collegiate Professional level in early childhood or elementary education by the State of Virginia or another jurisdiction.
2. Submit recommendations by three persons qualified to judge professional competence.

**Program Outline**

| I. Historical, Philosophical, and Sociological Foundations | 3 |
| II. Psychological Foundations | 3 |
| III. Research | 3 |
| IV. Area of Specialization | 15 |
| 1. Education 550, 562, and one of the following: 558, 559, 561, 562, 563, 564, 565, 625 | 9 |
| 2. In one of the following areas: | 6 |
| a. Early Childhood and Elementary Teaching | |
| b. Historical, Philosophical, and Sociological Foundations | |
| c. Psychological Foundations | |
| d. Reading | |
| e. Educational Technology | |
| f. Supervision | |
| g. Special Education | |
| V. Electives including other disciplines | Total 6 |
| Semester Hours | 30 |

[http://catalog.gmu.edu](http://catalog.gmu.edu)
Guidance and Counseling

Master of Education in Guidance and Counseling. The graduate program in guidance, counseling, and personnel services is designed to prepare students to function as counselors and personnel specialists in a variety of work settings, including elementary and secondary school, colleges, and agencies.

Entrance Requirements

Students must satisfy entrance requirements under either A or B below.

A. Students preparing for elementary or secondary school guidance and counseling must:
   1. Provide evidence of certification at the Collegiate Professional level by the State of Virginia or another acceptable jurisdiction.
   2. Have completed one year of successful teaching experience at the level where qualification is desired.
   3. Be recommended by three professional educators in the position of principal, supervisor, or administrator, regarding the potential of the applicant for the field of guidance and counseling.
   4. Be interviewed and recommended for acceptance.

B. Students preparing for counseling and personnel work in colleges and other agencies must:
   1. Possess a baccalaureate degree.
   2. Have completed a minimum of 12 semester hours of undergraduate work in the behavioral sciences. (The Department requires that undergraduate deficiencies be made up by completion of appropriate work without graduate credit).
   3. Submit three letters of recommendation concerning the potential of the applicant for the field of guidance and counseling.
   4. Be interviewed and recommended for acceptance.

Program Outline

An individualized graduate program will be arranged in consultation with the student’s graduate adviser. This will take into consideration the previous collegiate program and work experience, and the future goals and needs of the student. However, the basic minimum courses of study will usually include the following:

<table>
<thead>
<tr>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>I. Historical, Philosophical, and Sociological Foundations</td>
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<tr>
<td>II. Psychological Foundations</td>
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<tr>
<td>III. Research Methods and Utilization</td>
</tr>
<tr>
<td>IV. Area of Specialization</td>
</tr>
<tr>
<td>Principles of Guidance</td>
</tr>
<tr>
<td>Group Processes</td>
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<tr>
<td>Analysis of the Individual</td>
</tr>
<tr>
<td>Counseling Theories and Practices</td>
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<tr>
<td>Career and Educational Counseling</td>
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<tr>
<td>Tests and Measurements</td>
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<tr>
<td>Practicum</td>
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<tr>
<td>V. Electives</td>
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<tr>
<td>Selected courses in Education, Psychology, Sociology, or other appropriate areas. The coursework will be planned to strengthen the student’s preparation in the particular area of specialization desired.</td>
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<td>Total</td>
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Reading

Master of Education in Reading. This program is designed to permit qualified individuals to become reading specialists at the elementary or secondary school level.

Entrance Requirements

The applicant must:
1. Provide evidence of certification at the Collegiate Professional level by the State of Virginia or another jurisdiction.
2. Have completed two years of successful teaching experience.
3. Be recommended by three professional educators in the position of principal, supervisor, or administrator, including at least one who has observed the applicant’s teaching.

Program Outline

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<th>Semester Hours</th>
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<tr>
<td>I. Historical, Philosophical, and Sociological Foundations</td>
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<tr>
<td>II. Psychological Foundations</td>
</tr>
<tr>
<td>III. Research</td>
</tr>
<tr>
<td>IV. Area of Specialization</td>
</tr>
<tr>
<td>Education 559 and/or 604; 601 or 602; 603; 605 or 607; 608(6), or 608(3) and 609(3)</td>
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<td>Total</td>
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School Administration

Master of Education in School Administration. This program is designed to enable qualified individuals to prepare for positions of leadership (principal, assistant principal, department chairman, team leader) at the elementary or secondary school level.

Entrance Requirements

The applicant must:
1. Provide evidence of certification at the Collegiate Professional level by the State of Virginia or another jurisdiction.
2. Have completed two years of successful teaching experience, a portion of which must be at the level where qualification is desired.
3. Be recommended by three professional educators in the position of principal, supervisor, or administrator indicating the potential of the applicant for school administration, including at least one who has observed the applicant’s teaching.

Program Outline

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<th>Semester Hours</th>
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<tbody>
<tr>
<td>I. Historical, Philosophical, and Sociological Foundations</td>
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<tr>
<td>III. Research Methods and Utilization</td>
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<tr>
<td>IV. Area of Specialization</td>
</tr>
<tr>
<td>Elementary or Secondary Curriculum</td>
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<tr>
<td>School Administration</td>
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<tr>
<td>Supervision of Instruction</td>
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<tr>
<td>School Law</td>
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<tr>
<td>School and Community Relations</td>
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<tr>
<td>Practicum</td>
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<td>Total</td>
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</table>

1. Students should make application for practicum or internship one semester prior to enrollment, observing the following dates for application:
   - For Fall Semester: May 15
   - Spring Semester: October 15
   - Summer Session: March 1

2. Candidates currently employed as reading teachers or specialists may complete 3 semester hours in 608 and 3 semester hours in 609.
School Supervision

Master of Education in School Supervision. This program is designed to enable qualified individuals to prepare for positions of leadership in school systems, i.e., general supervisor or coordinator, elementary supervisor, secondary supervisor.

Entrance Requirements
The applicant must:
1. Provide evidence of certification at the Collegiate Professional level by the State of Virginia or another jurisdiction.
2. Have completed two years of successful teaching experience, a portion of which must be at the level where qualification is desired.
3. Be recommended by three professional educators in the position of principal, supervisor or administrator, including at least one who has observed the applicant's teaching.

Program Outline

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<tr>
<td>Elementary or Secondary School Curriculum</td>
</tr>
<tr>
<td>School Administration</td>
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<tr>
<td>Supervision of Instruction</td>
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<tr>
<td>Teaching Materials, Resources, Media</td>
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<tr>
<td>Evaluation of Instruction</td>
</tr>
<tr>
<td>Practicum</td>
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<tr>
<td>Total</td>
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Secondary Education

Master of Education in Secondary Education. This program is designed to improve the competence of teachers who have completed a basic program in preparation for teaching and who hold the Virginia Collegiate Professional Certificate or its equivalent.

Entrance Requirements
The applicant must:
1. Provide evidence of certification at the Collegiate Professional level in secondary education by the State of Virginia or another jurisdiction.
2. Submit recommendations by three persons qualified to judge professional competence.

Program Outline

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<tbody>
<tr>
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<td>II. Psychological Foundations</td>
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<tr>
<td>III. Research</td>
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<tr>
<td>IV. Area of Specialization</td>
</tr>
<tr>
<td>1. Education 527, 601, 650, 652, 653</td>
</tr>
<tr>
<td>2. One of the following:</td>
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<tr>
<td>a. Emotionally Disturbed specialization.</td>
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<tr>
<td>Education 533 or 651, 647, and Psychology 517.</td>
</tr>
<tr>
<td>b. Learning Disabilities specialization.</td>
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<tr>
<td>Education 648, 651, 533 or Psychology 517.</td>
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<tr>
<td>c. Mentally Retarded specialization.</td>
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<tr>
<td>Education 649, 651, 533 or Psychology 517.</td>
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<td>Total</td>
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Special Education

Master of Education in Special Education. This program is designed to enable certified teachers and other individuals having fulfilled the appropriate prerequisites to become specialists in the teaching of children with exceptionalities involving emotional disturbances, or learning disabilities, or mental retardation.

Entrance Requirements
The applicant must:
1. A. Provide evidence of certification at the Collegiate Professional level by the State of Virginia or another jurisdiction, or B. Have completed
   i) the General Education Requirements for certification at the Collegiate Professional level in Virginia or another jurisdiction, and
   ii) the following undergraduate courses or equivalents:
   Education 201 and 202, Human Growth and Development [3] [3]
   Education 301, Foundations of Education [3]
   Education 313, Educational Psychology [3]
   Education 403, Developmental Reading at Early Childhood Levels [3] or
   Education 404, Developmental Reading for the Elementary Grades [3]
   Mathematics 371 or 372, Mathematics for the Elementary School [3]
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<th>Semester Hours</th>
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</tbody>
</table>

1 Students should make application for practicum or internship one semester prior to enrollment, observing the following dates for application:
   For Fall Semester by May 15
   For Spring Semester by October 15
   For Summer Session by March 1
2 Virginia Certification in general supervision requires both elementary and secondary curriculum courses.
Graduate Education Courses

Time of Course Offerings. To assist students in program planning, the time when courses will normally be offered is indicated as follows:
F = Fall Semester
S = Spring Semester
I = Summer, 1st term
II = Summer, 2nd term

Prerequisites. All graduate education courses, unless exception is indicated, have the following basic prerequisite: Collegiate Professional Certificate or equivalent, or permission of the Department. Specific additional prerequisites pertaining to each course are listed with the course description.

500 In-Service Educational Development [2, 3, 4, 6] F, S, I, II
Prerequisites: Employment as an administrator, supervisor, or teacher by sponsoring school division, acceptability to the University, Offered upon request of a school division or other educational agency. Considers problems of professional education personnel in one or more areas. The course may take any appropriate form such as a seminar, workshop, or practicum. May be repeated, II applicable to a specific degree program, up to six semester hours may be accepted toward a degree by the University.

501 History of Education in the Western Culture [3] F, S, II
A critical historical analysis of old world backgrounds influencing education in the United States.

An examination of the development of the American education system.

A critical examination of selected ancient and contemporary philosophies and their impact upon educational thought and practice.

An appraisal of the changing role of the American school system in society, relationships to other institutions, the social purpose of the school, and major social problems involving the school and possible solutions.

507 School-Community Relations [3] S
The principles, philosophy, practices, and agencies involved in developing and maintaining desirable relationships between schools and the communities they serve.

An advanced course relating to human development through the life span including the development of the child through education, the unfolding of human abilities in terms of personal adjustment and achievement.

526 Advanced Educational Psychology [3] F, S, II
An advanced course relating to learning theory, motivation, personality development, social and emotional behavior and student attitudes.

527 Evaluation of Student Progress [3] F
Teacher evaluation of the progress of the learner through observation of performance and through measurement devices in the classroom. Teacher interpretation of standardized tests given in the schools.

528 Group Processes and Analyses [3] S
Includes theories appropriate to various types of groups, as well as descriptions of group practices, methods, dynamics, and facilitative skills. Attention is given to application of theory in practice.

Techniques and principles used in the construction, administration and quantification of measuring devices for evaluation purposes; interpretations of standardized tests of ability, achievement, interest and personality.

533 Mental Health in the School Program [3] F
Mental health problems in the school emphasizing control of the school environment as an influence on mental health, Dynamics of behavior, personal and social maladjustments.

Prerequisite: Education 531. Development of a framework for understanding the individual, including methods of data gathering and interpretation; choosing, administering and interpreting individual and group tests; the study of individual differences; use of case study technique.

Study of the basic philosophy and nature of guidance services in the elementary school situation. Emphasis is placed on the role of various school personnel in helping to meet the developmental needs of the elementary school pupil.

Introduction to guidance and personnel work. Basic philosophy and nature of guidance. Emphasis on organization and administration of guidance programs, roles and relationships, issues, and professional problems.

544 College Student Personnel Work [3] S
Prerequisites: Education 538 or 539. The study of theory, nature, and background of student personnel work in higher education. Structure, organization, and administration of services and programs. Basic problems and needs of college students.

Development of the curriculum in the elementary school, historical backgrounds, present programs, development of new programs, methods of implementing new programs, and evaluative methods and procedures.

Development of the curriculum in the secondary school, historical backgrounds, present programs, development of new programs, methods of implementing new programs, and evaluative methods and procedures.

Prerequisites: Teaching experience, and Education 550 or 551. Basic principles and practices of instructional supervision. Students may emphasize elementary or secondary school levels through options in reading and project assignments.

554 Evaluation of Instruction [3] S
Prerequisites: Teaching experience and Education 550 or 551. Supervisory techniques in the evaluation of instruction. Individual and group processes for the integration of evaluation of school personnel and programs with improvement of instructional environments.

Prerequisites: Teaching experience and Education 550 or 551. Basic principles and practices in the administration of elementary and secondary schools. Students may emphasize elementary or secondary administration through options provided in reading and project assignments.

Prerequisite: A basic course in teaching social studies in the elementary school. An advanced course in the methods, materials, content, and organization of social studies programs in the elementary schools.

Prerequisite: A basic course in teaching reading in the elementary school. An advanced course in the principles, techniques, and materials for developmental reading programs in the elementary grades.

Prerequisite: A basic course in reading. An advanced course in the use of diagnostic techniques, diagnostic instruments, and evaluation to individualize the reading instruction in the classroom.

Prerequisite: A basic course in children's literature. An advanced course relating to children's literature.

Prerequisite: A basic course in music for the elementary school. An advanced course for elementary teachers in the principles and practices of music for children.
Prerequisite: A basic course in teaching science in the elementary school, or an advanced course in the subject matter, methodology, and materials involved in teaching of physics and chemistry to elementary school children.

Prerequisite: A basic course in art for the elementary school teacher, or an advanced course designed to present elementary teachers with skills and knowledge necessary for the development of arts programs in various media and materials.

565 Production of Instructional Materials [3] S
Prerequisite: A basic course in instructional media, A course designed to prepare teachers with the basic knowledge needed to produce inexpensive teaching materials. Planning, production techniques, and evaluation standards are emphasized. Students are given an opportunity to work on individual projects in their own subject fields.

Prerequisite: A basic course in secondary school teaching methods. An advanced course in the methods, materials, content, and organization of social studies programs in the secondary schools.

Prerequisite: A basic course in secondary school teaching methods, An advanced course in the methods, materials, content, and organization of science and mathematics programs in the secondary schools.

Prerequisite: A basic course in secondary school teaching methods, An advanced course in the methods, materials, content, and organization of language arts programs in the secondary schools.

This course is designed to provide the background in school law needed by school administrators, supervisors, counselors, and others.

580 Practicum in Education Leadership [3, 3; or 6] F, S, I, II
Prerequisite: Permission of program coordinator; admission to and completion of graduate program except for practicum, or enrollment in final term of program, Students translate administrative and supervisory theory into practice through field experiences and intensive seminar inquiry. Placement is in elementary, middle school, high school, or central office situations according to student's program. A total of six semester hours is normally required.

Prerequisite: Student must have completed graduate program except for seminar, or be in final semester of program. Application of graduate coursework to instructional situations through discussion, projects, and reports related to practice and/or research.

Prerequisite: Student must have completed graduate program except for seminar, or be in final semester of program. Application of graduate coursework to instructional situations through discussion, projects, and reports related to practice and/or research.

Research design and techniques. Use of research tools and analysis of data in education.

The bases of statistical inference, sample variance and chi-square distribution, analysis of variance and factorial analysis, sampling from binomial and multinomial populations, and distribution-free methods of analysis.

Prerequisites: Education 590 or 591. A problem of interest to the student, study will utilize accepted research methods under the supervision of a member of the graduate faculty.

Prerequisites: Admission to a degree program and completion of nine semester hours of course work for graduate credit. By arrangement, may be repeated. Various subjects, principally by directed study, discussion, and research.

Prerequisites: Education 590 and 591. The study of a significant problem of interest to the student, utilizing accepted research methods under the supervision of a member of the graduate faculty.

Prerequisite: Education 559 or 604, Designed for those who wish to specialize in reading. Nature and cause of reading difficulties; organization of remedial reading programs; use of remedial materials; teacher aids and learning centers, psychological and health services, and innovative methods and materials.

602 Physical and Psychological Factors in Reading [3] S
Prerequisites: Admission to graduate program in reading, Education 559 or 604, and Education 603, An advanced course on the physical and psychological factors involved in the reading process, clinical diagnosis, and remediation.

603 Diagnostic and Evaluative Techniques in Reading [3] S
Prerequisites: Admission to graduate program in reading, Education 601, and Education 591 or 531. A technical course in diagnosing reading problems. Procedures in testing, scoring, and evaluation of standardized and informal tests, individual and group tests, physical and psychological tests, and techniques of reporting the test results.

A course for teachers in the secondary or in the intermediate schools. Reading in content areas; reading problems; causes, diagnosis, remediation; skills, and speed reading.

605 Teaching Reading to the Culturally Disadvantaged [3] S
Prerequisite: Education 559 or 604. A course designed to develop competencies in reading methods for the disadvantaged. Emphasis will be placed upon personal commitment and ability with the disadvantaged child; methods, techniques, innovative designs for teaching; problem areas, linguistic differences, pre-reading skills and the psychological development of the child.

607 Teaching Reading to the Gifted [3] F
Prerequisite: Education 559 or 604. A course dealing with the higher levels of reading attainment. Speed reading, critical reading, advanced study skills, intellectual needs of the gifted, and literature and materials for enrichment programs.

608 Practicum in Reading [3 or 6] F, S, I, II
Prerequisites: Admission to and completion of graduate program in reading except for practicum or enrollment in final semester of program. Work with individuals and groups under faculty supervision in the reading center, using a variety of reading procedures.

609 Internship in Reading [3] F, S, I, II
Prerequisites: Admission to the graduate program in reading, and Education 559, 601 or 602, 603, 604, 605 or 607, and 608. A program of supervised teaching and participation as a reading specialist in a public school system. Emphasis will be given to consultative techniques.

625 Utilization of Educational Technology in Instruction [3] F, I
A consideration of the effective utilization of educational technology in the teaching-learning situation.

Prerequisites: Education 538 or 539. A study of the basic theories, principles and techniques of counseling and their applications to counseling settings.

637 Career and Educational Counseling [3] S
Prerequisites: Education 531, and 538 or 539. Vocational choice theory, sources of occupational and educational information, approaches to career decision making processes, and career development exploration techniques.

Prerequisites: Education 538 or 539. Principles of organizing and administering a guidance program with emphasis on the role and functions of school personnel in various organizational programs, and major services of the adequate guidance program.

Prerequisites: Admission to and completion of the graduate program in guidance and counseling except for practicum, or enrollment in final term of student program. Supervised practice in guidance and counseling in a setting similar to that in which the student plans to work. (Elementary and Secondary school practicum open to certified personnel only. All other students will be placed in a setting related to their career goals.)

Prerequisite: Be near completion of special education program (to be taken immediately preceding or concurrently with the Practicum) or permission of the department. Adaptive educational techniques in placement, grouping, curriculum content, instructional theory, and therapeutic services. Model programming of interrelated community resources such as mental health clinics, day camp and residential centers. The learning problems in the public school and curricula designed for student development.

Prerequisite: Be near completion of special education program (to be taken immediately preceding or concurrently with the Practicum) or permission of the department. Methods, materials, and curricula with rationale, structure, and procedures for determining strengths and defects in functional skills and learning styles. Remedial methods for specific learning disabilities will be studied.
Education courses continued

Prerequisite: Be near completion of special education program (to be taken immediately preceding or concurrently with the Practicum) or permission of the department. Study of suitable curricula for educable mentally retarded primary and intermediate classes including administrative procedures for grouping, course work, textbooks, methods, and audio-visual materials, concepts in science, social studies, and the arts.

Prerequisite: Completion of the program in special education except for internship, or enrollment in final term. A supervised internship with experience teaching emotionally disturbed, learning disabled, or mentally retarded children in a public school system or in an approved hospital or clinic.

This course will focus on characteristics of learning problems as seen through the eyes of the neurologist and pediatrician. Therapeutic educational approaches will be designed and explained.

652 Survey of Special Education [3] F, S
An overview of the field of special education. This course is designed to acquaint prospective teachers with the needs, programs, and problems in the teaching of the exceptional child, including the gifted child; and the intellectually, physically, socially, and emotionally handicapped.

653 Remedial Mathematics [3] S
Prerequisite: Education 652 or permission of the department. A course for those who will teach special education classes. Includes remedial techniques, methods, materials, and teaching designs for the slow learner and the emotionally disturbed, motivation and evaluative procedures.

Supporting Courses in Teaching Fields

The 500-level graduate courses in Biology, Business Administration, Chemistry, Economics, English, French, Government (Public Administration), History, Mathematics, Physics, and Spanish provide the subject matter for students seeking a master’s degree in secondary education with an emphasis in these fields.

In addition, the following upper-level undergraduate courses have been approved by the Graduate Council as acceptable for graduate credit towards the Master of Education degree:

Art: 492
Biology: 311, 342, 344, 412, 413, 441, 445, 447, 448, 462, 464, 471, 473, 480, 481, 482, 483, 484, 485
Business Administration: 312, 412, 433
Chemistry: 331, 332, 336, 337, 422, 432, 441, 445, 461
Geography: 301, 302, 303, 304, 402, 403, 405, 410, 420
German: 361, 362, 405, 406, 409, 411, 412, 420, 425, 526
History: 401, 403, 411, 412, 421, 422, 433, 438, 443, 453, 460, 464, 471, 473
Music: 445
Psychology: 401, 404, 410, 411, 412
Sociology: 302, 308, 382, 411
Spanish: 320, 400, 401, 403, 404, 407, 408, 410, 412

The Department of Education will accept for graduate credit toward the Master of Education degree a maximum of six hours of these undergraduate courses when taken as part of an approved program of study.
Department of English

Professors Sundell (Chairman), Baxter, S. Brown, Jackson, Kominars, Molin
Associate Professors L. Brown, Garson, Gras, Karlson, Walls
Assistant Professors Gallehr, Keith, Kelley, O'Connor, Radner

Master of Arts in English

The graduate program in English is designed to be sufficiently flexible to provide professional training in the study of English and American literature to students with widely differing aims. Those it should serve primarily may be grouped in the following categories:

1. Persons who wish to become candidates for the doctorate in English at another institution after earning their master's degrees.
2. Prospective teachers of English in secondary schools and community colleges.
3. Teachers who wish to improve their professional competence.

Departmental Entrance Requirements. Applicants must fulfill the general entrance requirements. Those with undergraduate majors in disciplines other than English are encouraged to apply for admission, but they may be required to make up deficiencies by taking appropriate undergraduate courses without graduate credit. Although the Department does not require letters of recommendation, it will accept as many as three in support of applicants who believe such letters essential to a clear presentation of their qualifications.

Departmental Degree Requirements. In addition to fulfilling the general degree requirements, candidates must satisfy the following departmental requirements:

1. Complete 30 semester-hours of credit in graduate courses in English. Six of these hours may be in approved undergraduate courses, and another six hours may be in Thesis. With the approval of the Department, six hours of graduate credit in courses in related disciplines may be substituted for six hours in English.
2. Pass English 501, Literary Scholarship, normally in the second semester of study.
3. Meet the following distribution requirements:
   a. at least six hours in English and/or American Literature Before 1900;
   b. at least one Seminar in the Major Figures Series (565-581). The course used to fulfill this requirement may not also be used to satisfy requirement 3a.
4. Select early in the program in consultation with a departmental adviser one of the following options:
   a. to write a thesis (6 hours);
   b. to elect nine hours of a core program organized by period, genre, theme, or some other principle approved by the advisor and the chairman. No more than six hours selected to fulfill requirement 3 above may also be applied to this requirement;
   c. to elect six hours of specialization in courses concerned with instruction of composition and literature (currently 510, 515, 520, and 521).

5. If the student has not already passed 12 hours of undergraduate credit in a foreign language, he must either do so or demonstrate the equivalent proficiency by passing an examination administered by the Department of Foreign Languages.

Sample Programs

The following sample programs are illustrative, not prescriptive. To develop a program suited to his particular aims, the student should consult with his departmental adviser.

Sample Program for a Student Planning to Continue to the Doctorate

501 Literary Scholarship [3]
505 Literary Theory and Criticism [3]
520 Descriptive Linguistics [3]
540 Studies in Nineteenth Century English Literature [3]
545 Studies in Twentieth Century English Literature [3]
555 Seminar in Shakespeare [3]
575 Seminar in a Major Figure in English Literature After 1800 [3]
599 Thesis [3, 3]

Sample Program for a Student Planning to Teach in a Secondary School or Community College

501 Literary Scholarship [3]
510 Proseminar in Literature Instruction [3]
515 Proseminar in Composition Instruction [3]
520 Descriptive Linguistics [3]
540 Studies in Nineteenth Century English Literature [3]
545 Studies in Twentieth Century English Literature [3]
555 Studies in Nineteenth Century American Literature [3]
560 Studies in Twentieth Century American Literature [3]
565 Seminar in Shakespeare [3]
580 Seminar in a Major Figure of American Literature [3]

Sample Program for a Student Desiring to Enhance His Enjoyment of Literature

501 Literary Scholarship [3]
525 Studies in English Medieval Literature [3]
530 Studies in English Renaissance Literature [3, 3]
535 Studies in Eighteenth Century English Literature [3]
540 Studies in Nineteenth Century English Literature [3]
555 Studies in Nineteenth Century American Literature [3]
560 Studies in Twentieth Century American Literature [3]
565 Seminar in Shakespeare [3]
575 Seminar in a Major Figure of English Literature after 1800 [3]

Undergraduate-Graduate Courses

The following undergraduate courses have been approved for graduate credit. Catalog descriptions appear in the Undergraduate Catalog.

English 441 442 Studies in English and American Literary Topics, Periods or Genres
English 444 Selected Major English and American Writers Before 1900
English 446 Selected Major English and American Writers of the Twentieth Century
English 451 Introduction to Literary Criticism
English 455 Literary Style
English 467 Advanced Expository Writing
English 469 Seminar in Creative Writing

http://catalog.gmu.edu courses are continued on the next page
Graduate English Courses

501 Literary Scholarship [3]
The methods and purposes of literary research, including study of library methodology, use of critical bibliographies, techniques of textual criticism, and the evaluation of various approaches to literary history.

505, 506 Literary Theory and Criticism [3, 3]
The major theories of literature and methods of analyzing and evaluating literary works. Works and authors studied vary and will be announced before registration.

510 Proseminar in Teaching the Reading of Literature [3]
The methods of teaching literature. Includes the study of various methods of literary analysis and of the most effective ways of developing student responses to literature, with some classroom practice. (This course does not satisfy State of Virginia certification requirements in diagnostic or developmental reading.)

515 Proseminar in Composition Instruction [3]
The methods of teaching expository writing. Includes consideration of the planning of courses, practice in teaching and in grading papers, and study of the laboratory method of instruction.

520 Descriptive Linguistics [3]
An introduction to the terminology and methodology of modern linguistic science, and a detailed structural analysis of English phonology, morphology, and syntax.

521 Applied Linguistics—Teaching English as a Foreign Language [3]
Prerequisite: Linguistics (descriptive or historical, graduate or undergraduate). Theories and basic principles of the acquisition of a second language, especially as they relate to the English language, supplying students with methods of teaching English to speakers of other languages.

525, 526 Studies in English Medieval Literature [3, 3]
Selected literary authors, works, or movements, generally excluding Chaucer, from between 1300 and 1500, studied in Middle English. Specific content will vary and will be announced before registration.

530, 531 Studies in English Renaissance Literature [3, 3]
Selected literary authors, works, or movements, of the English Renaissance, generally excluding Shakespeare and Milton. Specific content will vary and will be announced before registration.

535, 536 Studies in Eighteenth Century English Literature [3, 3]
Selected English literary authors, works, or movements of the eighteenth century. Specific content will vary and will be announced before registration.

540, 541 Studies in Nineteenth Century English Literature [3, 3]
Selected English literary authors, works, or movements of the nineteenth century. Specific content will vary and will be announced before registration.

545, 546 Studies in Twentieth Century English Literature [3, 3]
Selected English literary authors, works, or movements of the twentieth century. Specific content will vary and will be announced before registration.

550, 551 Studies in Seventeenth and Eighteenth Century American Literature [3, 3]
Selected literary authors, works, or movements of colonial and early federalist America. Specific content will vary and will be announced before registration.

555, 556 Studies in Nineteenth Century American Literature [3, 3]
Selected American literary authors, works, or movements of the nineteenth century. Specific content will vary and will be announced before registration.

560, 561 Studies in Twentieth Century American Literature [3, 3]
Selected American literary authors, works, or movements of the twentieth century. Specific content will vary and will be announced before registration.

565, 566 Seminar in Shakespeare [3, 3]
Intensive study of the achievement of Shakespeare and the major critical approaches to his work.

570, 571 Seminar in Major Figures of English Literature Before 1800 [3, 3]
Intensive study of the work of one or two major figures of English Literature before 1800. Specific content will vary and will be announced before registration.

575, 576 Seminar in Major Figures of English Literature After 1800 [3, 3]
Intensive study of the work of one or two major figures of English Literature after 1800. Specific content will vary and will be announced before registration.

580, 581 Seminar in Major Figures of American Literature [3, 3]
Intensive study of the work of one or two major figures of American Literature. Specific content will vary and will be announced before registration.

585, 586 Selected Topics, Movements, or Genres of Literature in English [3, 3]
Specific content will vary and will be announced before registration.

598 Directed Reading and Research [3]
Prerequisite: Open only to degree students who have completed 15 credit hours including English 501 and have pre-registered for the course. Reading and research on a specific project, under the direction of a department member. An oral or written report is required.

599 Thesis [3-6]
Those students who take English 598 and then elect the thesis option may earn three credits for English 599. Students who do not take English 598 may earn six credits for English 599.

French

Department of Foreign Languages

The Department of Foreign Languages offers the following course in support of other graduate programs.

525 Studies in Modern French Literature [3]
Prerequisite: Graduate standing or permission of the department. Selected writers, works, themes or trends of French literature in the modern era. The specific topic will vary and will be announced before registration. All work of the course is in French. A maximum of six hours may be earned.

French 550, 551 Special Topics [3, 3]
Prerequisite: Graduate standing or permission of the department. A special topics course for graduate students in French. Various topics will concentrate in depth on certain aspects of French culture and literature. The specific topic, theme, or genre will vary from semester to semester and will be announced before registration.
Department of History

Professors  Boothe, Cassara
Associate Professors  Cavanaugh, Harsh (Acting Chairman), Jensen, Moseley, Pacheco, Pugh*, Saeed, Spence, Spindler
Assistant Professors  Gleissner*, Soder

Master of Arts in History

This program is designed to help students achieve a greater understanding of the discipline of history and to master the methodology of the historian. Since this is a research-oriented program, it can be useful to students who plan to become candidates for the Ph.D. at another institution.

Students may concentrate on the history of the United States, Modern Europe or Latin America.

Departmental Entrance Requirements. In addition to fulfilling the general entrance requirements, applicants for the Master of Arts degree in History should have majored in history at the undergraduate level. Students with undergraduate majors in fields other than history may be admitted, if their records demonstrate strong background in history and studies closely related to it. The Department may require that undergraduate deficiencies be made up in courses without graduate credit.

Other Requirements.

1. Satisfactory scores in the Graduate Record Examination, including the area examination in history.
2. Two letters of recommendation from professors of history with whom the applicant has studied or from others directly familiar with his professional competence.
3. Language proficiency, where appropriate to the student's field of concentration, may be required as a prerequisite for admission to the program. (See general language requirements under Departmental Degree Requirements below.)

Departmental Degree Requirements. The candidate for the Master of Arts degree in history must successfully meet the following requirements to be awarded the degree:

1. Thirty semester-hours of approved graduate work including thesis, with a grade point average of not less than 3.00.
2. Three semester hours in History 500 (to be taken within the first nine hours of course work).
3. Twelve semester hours in a major field of concentration, including one research seminar; such major fields presently offered are United States, Latin American, and modern European history.
4. Nine semester hours in a second field of history; minor fields presently offered are United States, Latin American, and modern European history.
5. Proficiency in a foreign language. This requirement may be met in one of the following ways:
   (a) have taken or take successfully (before completing fifteen hours of graduate work) college courses through the intermediate level in a language appropriate to his or her field of concentration.
   (b) pass a proficiency examination administered by the Foreign Languages Department in a language appropriate to his or her field of concentration.
6. Pass an oral comprehensive examination administered by the history faculty covering the student's area of concentration and one other field of history.

Model Program for the M.A. in History

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>History 500</td>
<td>3</td>
</tr>
<tr>
<td>Field of Major Concentration</td>
<td>12</td>
</tr>
<tr>
<td>United States, Latin American,</td>
<td></td>
</tr>
<tr>
<td>or Modern European History</td>
<td></td>
</tr>
<tr>
<td>Field of Minor Concentration</td>
<td>9</td>
</tr>
<tr>
<td>(same fields as above)</td>
<td></td>
</tr>
<tr>
<td>History 599 (Thesis)</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>30</strong></td>
</tr>
</tbody>
</table>

Master of Arts in Teaching (History)

The program leading to the degree of Master of Arts in Teaching is designed to help teachers extend their knowledge of bibliography and current trends in historical thinking and to improve their effectiveness in presenting history in the classroom. Narrow specialization is avoided by allowing great latitude in choice of courses. Study in the methodology of teaching social studies is included in the program.

Departmental Entrance Requirements. In addition to fulfilling the general entrance requirements, applicants for the degree of Master of Arts in Teaching should have majored in history. Applicants with undergraduate majors in fields other than history may be admitted if their records demonstrate strong background in history and studies closely related to it. The Department may require that undergraduate deficiencies be made up in courses without graduate credit.

Other Requirements.

1. Satisfactory scores in the Graduate Record Examination, including the area examination in history.
2. Two letters of recommendation from professors of history with whom the applicant has studied or from others directly familiar with his professional competence.

Departmental Degree Requirements. The candidate for the Master of Arts in Teaching must successfully complete the following:

1. Twenty-four credits in history, including the three credits in History 500 (to be taken within the first nine hours of course work).

2. Twelve credits in education, including Education 567 and 583.
3. A comprehensive examination administered by the faculty.

The candidate, if he intends to teach at the secondary level, must also qualify for the Virginia College Professional Certificate (or its equivalent) in history.

The Master of Arts in Teaching degree requires a minimum of 36 hours of graduate credit.

Undergraduate-Graduate History Courses
A student's program may include up to six semester hours in approved undergraduate courses. The following courses, whose descriptions appear in the Undergraduate Catalog, have been approved for graduate credit.

401 Colonial America [3]
403 Early National Period in American History [3]
406 Civil War and Reconstruction [3]
411 Cultural and Intellectual History of the U.S.: 1600-1865 [3]
412 Cultural and Intellectual History of the U.S. Since 1865 [3]
421 Intellectual and Cultural History of Europe, 1715-1848 [3]
422 Intellectual and Cultural History of Europe, 1848 to the Present [3]
433 The United States in the Twentieth Century [3]
438 Spanish Borderlands [3]
441 France Since the Revolution [3]
443 History of Spain and Portugal [3]
453 History of Mexico [3]
463 The Early History of the Indo-Pakistan Subcontinent [3]
464 Modern India and Pakistan [3]
471 Modern China [3]
473 Modern Japan [3]

Graduate History Courses

500 The Study and Writing of History [3]
The methodology of the historian, including techniques of research, use of documentation and other sources, development of bibliography, synthesis of material.

A study of the evolution of those elements in colonial society which continue to affect contemporary American institutions and patterns of behavior.

503 The Enlightenment in America [3]
A study of the Enlightenment as it was reflected in various aspects of American life in the 18th and early 19th centuries: government, science, philosophy, religion, education, and the arts. The writings of leading figures of the period will be examined and the impact of the Enlightenment on the development of the new American nation will be analyzed.

505 Attempts to Control the U.S. Westward Movement [3]
A study of attempts by the East to control the West, how and by whom control was attempted, to what extent it was effective, to what extent the need for such control existed, and in what manner the West resisted Eastern domination.

507 (543) Interpretations in United States Diplomatic History [3]
Diplomatic problems and interpretations of diplomatic changes in the course of the development of the United States as a world power. Analyses of the administration of American foreign policy and its relationship to national interests.

508 Seminar in State and Local History [3]
An exposition of the principles and techniques of local history followed by an intensive investigation of selected aspects of the history of Fairfax County and northern Virginia utilizing area manuscript collections.

510 Race in American Life and Thought [3]
An historical examination of the nature of American attitudes toward non-whites and of the impact of these attitudes on American life and thought. Emphasis will be placed on the origins of American views of race and their effect on our national experience.

511, 512 Research Seminar in United States History [3, 3]
Prerequisite: Permission of instructor. Research in specialized topics using primary sources.

513 Topics in the American Civil War Era [3]
A joint project, undertaken by instructor and students, into the various aspects of a common topic in the Civil War era; includes emphasis on historiography and historical method.

516 Problems in American History [3]
Readings and discussion of bibliographies, interpretations, and research trends in topics selected by the instructor. A maximum of six hours may be earned.

519 Seminar on Inter-American Diplomacy [3]
A research seminar on geographic, political, economic, military, and other such forces that have influenced inter-American relations. Study of the special relationship between the United States and Latin America. This course may be applied towards the major or minor concentration in either U.S. or Latin American history.

520 Social Revolution in Latin America [3]
An analysis of the revolutionary forces that are challenging traditional institutions and transforming all aspects of society in contemporary Latin America. Selected countries will be studied in depth because of their importance in the hemisphere or because they represent the outstanding problems of the region.

521, 522 Research Seminar in Latin American History [3, 3]
Prerequisite: Permission of instructor. Research in specialized topics using primary sources.

525 Problems in Latin American History [3]
An analysis of selected problems in Latin American history. Emphasis will be placed upon reading and discussion of historical interpretations and the development of bibliography. A maximum of six hours may be earned.

528 (518) Latin American Cultural and Intellectual History, Nineteenth Century [3]
Iberian background and other foreign influences; ideas of the independence leaders; mid-century Romanticism, Liberalism, and Traditionalism; secular and religious Positivism; and Marxian socialism. Intellectual developments traced in major Latin American thinkers, writers, and artists.

531, 532 Research Seminar in European History [3, 3]
Prerequisite: Permission of instructor. Research in specialized topics using primary sources.

535 Problems in European History [3]
An investigation of selected problems in the history of Europe. Readings, discussions, development of bibliographies. Where possible, primary sources will be utilized. A maximum of six hours may be earned.

537 Great Britain: Empire to Commonwealth, 1870-1970 [3]
An examination of the rise of the "new imperialism" in Great Britain from 1870 to the end of the empire and the gradual formation of the Commonwealth of Nations.

539 Western Europe, 1790-1914: Aspects of the Transition from Old Regime to Modern State [3]
An analysis of Enlightenment, revolutionary, and modernizing factors in the development of western European states, 1750-1914, with emphasis on Britain, France, and Germany.

545 The Russian Revolution and the Origins of the Soviet State [3]
A study of the period between 1890 and 1924 with concentration on the sources of Bolshevism, the problems of the old regime as they led up to the revolutions of 1905 and 1917, the establishment of the new regime and its survival in an environment of foreign and civil war.

551 The Cultural History of Islam [3]
Religion, art, architecture, and literature of the Arabs, the Persians, the Moors of Spain, the Timurids of Central Asia, the Mughals of India and Pakistan, and the Turks. Some important political and cultural movements in different parts of the Islamic World will also be discussed.

555 Problems in Asian History [3]
Problems to be investigated will be announced by the instructor of the course. The class will discuss readings and historical interpretations and will compile a comprehensive bibliography on the given theme. A maximum of six hours may be earned.

556 (581-582) Directed Research [3-6]
Independent reading on a topic agreed to by a student and a faculty member.

Graduate Courses

A double number separated by a comma (Mathematics 515, 516) indicates that both courses normally constitute a sequence and that the first semester is a prerequisite to the second. The prerequisite may be waived by the Department Chairman.

501 Topics in Computer Science [1-3]
Prerequisite: No prerequisite for Part I. Part I or its equivalent is a prerequisite for Parts II and III. The course consists of three parts, each to run about five weeks. One hour of credit may be earned for each of the three parts of the course. The three parts will follow in sequence. It is the responsibility of the student to ascertain when each part begins. Credits for this course are not applicable toward the thirty semester hour requirement of the M.S. in Mathematics.
Part I.: Introduction to computers. BASIC and FORTRAN languages. Part II.: Writing computer programs. Students will program and run problems suitable to their professional interests. Part III.: Advanced programming and use of packaged programs, such as Statistical Package for Social Sciences.

503, 504 Intermediate Analysis and Algebra [3, 3]
Development of the number system and linear algebra. The highlights of the calculus are reviewed and then developed in terms of metric spaces. Credits for this course are not applicable toward the thirty credit requirement of the M.S. in Mathematics, but can be counted toward the Master of Education degree.

511, 512 Complex Analysis [3, 3]

513, 514 Ordinary Differential Equations [3, 3]

515, 516 Real Analysis [3, 3]

521, 522 Algebra [3, 3]
Groups, rings, fields, category theory, Galois theory.

531, 532 Point Set Topology [3, 3]
Topological spaces, connectedness, compactness, compactifications, uniform spaces, function spaces.

534 Homotopy Theory [3]
Homotopy theory including the fundamental group, higher groups and exact sequences.

536 Homology Theory [3]
Homology theory including simplicial homology theory, exact sequences, fixed point theorems.

537, 538 Non-Euclidean Geometry [3, 3]
Prerequisite: Permission of instructor. Affine, projective, hyperbolic, elliptical, and differential geometry; transformations and elementary combinatories.

543, 544 Mathematical Programming [3, 3]
Prerequisites: Mathematics 444 or the equivalent. Cutting plane, branch and bound algorithms for integer programming, optimization of convex functions subject to constraints, dynamic programming, and applications to problems in the management sciences.

551 Probability Theory [3]
Axioms for a probability space, conditional probability, random variables, distribution functions, moments, characteristic functions, modes of convergence, limit theorems.

552 Applied Probability [3]
Prerequisites: Mathematics 551 or the equivalent. Poisson processes, renewal theory, Markov chains. Semi-Markov processes, Markov decision processes. Applications to population models, queues, minimal cost decision making.

561, 562 Systems Optimization and Control [3, 3]
Prerequisites: Mathematics 551 or the equivalent. Systems of linear differential equations, optimization of linear dynamical systems, controllability and optimal control of linear systems, Gauss-Markov processes, Kalman filtering. Applications to networks, aero-space, information processing.

581, 582 Stochastic Models in Operations Research [3, 3]
Prerequisites: Mathematics 551, 552 or the equivalent. The formulation of mathematical models which characterize the behavior of complex systems arising in such areas as business management, transportation, environmental and ecology, arms control and disarmament.

589, 592 Seminar [2, 2]

599 Thesis [1-6]
Original or compulsory work to be evaluated by a committee of three faculty members.
Department of Physics

The Department of Physics offers the following course in support of other graduate programs.

500 Physics for High School Teachers [3]
Prerequisite: Certification as a secondary school physics instructor or approval of department. Techniques of teaching high school physics. Introduction to modern physics with emphasis in concepts rather than mathematical formalism. Recent developments in physics. Three lecture hours.

Department of Psychology

Associate Professor Mellinger (Chairman)
Professors Jordan, Mandes
Associate Professors Altman, Cooper, Moretz, Pasnak, Tyer
Assistant Professors Buffardi, Chiseri, Gessner, Gurkaynak, Mendelsohn, Peng, Sanford, Walters
Lecturers Crowe, Jennings, Meister

Master of Arts in Psychology

The graduate program in psychology is designed to be sufficiently flexible to provide professional or research training to students with diverse interests as outlined below:

1. Persons who wish to become candidates for the doctorate in psychology at another institution after earning their master's degree.
2. Those intending to pursue a career in research in experimental or industrial psychology upon completion of the master's degree.
3. Those intending to pursue a career in industrial psychology upon completion of the master's degree.
4. Persons who wish to receive professional training in child and adult assessment or counseling.

Departmental Entrance Requirements. In addition to fulfilling the general entrance requirements, applicants to the program will normally be expected to have a baccalaureate degree in psychology with at least 15 hours in psychology including statistics and experimental psychology. Exceptions may be made when an applicant's experience, publications, or special recommendations compensate for course deficiencies. Those with undergraduate majors in fields other than psychology are encouraged to apply and will be considered on an individual basis. Applicants may be required to make up deficiencies by taking appropriate undergraduate courses without credit. The tool requirement of tests and measurements, as needed by the individual specializations, must be met outside the total program hours.
Three letters of reference from persons familiar with the applicant's academic work and/or his potential for professional work, as well as GRE aptitude scores, are required of all applicants for admission to the psychology program. A Miller Analogies Test score may be submitted if the applicant wishes to give further evidence of ability.

Applicants who wish to specialize in the professional areas (counseling or child or adult assessment) will be evaluated on potential clinical ability as well as on academic performance since sound interpersonal skills are an important aspect of clinical effectiveness. Since the assessment and counseling courses are limited in enrollment, applicants to these specialties should generally have an overall grade point average of 3.0 for the last 60 undergraduate hours and a minimum of 3.25 in undergraduate psychology courses.

**Departmental Degree Requirements.** All students must complete the general requirements for a degree. Candidates with experimental or industrial specializations must complete 30 hours of graduate credit while those in the clinical and counseling specializations must complete 41 hours of graduate credit. The distribution of required hours for each specialization is as follows:

### Clinical Specialization

<table>
<thead>
<tr>
<th>Semester</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. General: 502, 503, 528</td>
<td>9</td>
</tr>
<tr>
<td>II. Assessment: 511, 515</td>
<td>8</td>
</tr>
<tr>
<td>III. Practicum: 550</td>
<td>6</td>
</tr>
<tr>
<td>IV. Clinical</td>
<td>15</td>
</tr>
<tr>
<td>a. Adult Clinical: Psychology 501, 504, 506, 512, 516</td>
<td>15</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>b. Child Clinical: Psychology 501, 504, 508, 517, 522</td>
<td>38</td>
</tr>
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</table>

### Counseling Specialization

<table>
<thead>
<tr>
<th>Semester</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. General: 502, 503, 528</td>
<td>9</td>
</tr>
<tr>
<td>II. Assessment: 511, 515</td>
<td>8</td>
</tr>
<tr>
<td>III. Practicum: 550</td>
<td>6</td>
</tr>
<tr>
<td>IV. Counseling: 506, 580, 581, 582, 583</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>38</td>
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</table>

### Experimental Specialization

<table>
<thead>
<tr>
<th>Semester</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. General Experimental: Psychology 501 (may be waived on an individual basis)</td>
<td>3</td>
</tr>
<tr>
<td>II. Methodology: Psychology 551, 552</td>
<td>6</td>
</tr>
<tr>
<td>III. Research: Psychology 599</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>15</td>
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</table>

### Industrial Specialization

<table>
<thead>
<tr>
<th>Semester</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. General Experimental: Psychology 501</td>
<td>3</td>
</tr>
<tr>
<td>II. Research or Practicum: Psychology 550 or 599</td>
<td>6</td>
</tr>
<tr>
<td>III. Two courses from the Industrial Area: Psychology 430, 432, 531, 532, 534</td>
<td>6</td>
</tr>
<tr>
<td>IV. Three courses from the areas of Methodology and General Psychology with at least one course selected from the Methodology area</td>
<td>9</td>
</tr>
<tr>
<td>Methodology: Psychology 503, 551, 552, 554, 556</td>
<td></td>
</tr>
<tr>
<td>General: Psychology 502, 504, 506, 507, 562, 563, 564, 566</td>
<td>24</td>
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</tbody>
</table>

### Typical Schedules

#### ADULT CLINICAL

<table>
<thead>
<tr>
<th>Semester</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Semester</td>
<td></td>
</tr>
<tr>
<td>503 Exper. Method</td>
<td>3</td>
</tr>
<tr>
<td>504 Biological Foundations</td>
<td>3</td>
</tr>
<tr>
<td>511 Intro. Psych. Assessment Lab</td>
<td>4</td>
</tr>
<tr>
<td>2nd Semester</td>
<td></td>
</tr>
<tr>
<td>512 Advanced Assessment</td>
<td>3</td>
</tr>
<tr>
<td>515 IQ Testing Lab-Adult</td>
<td>4</td>
</tr>
<tr>
<td>516 General Psychopathology</td>
<td>3</td>
</tr>
<tr>
<td>3rd Semester</td>
<td></td>
</tr>
<tr>
<td>502 Advanced General II</td>
<td>3</td>
</tr>
<tr>
<td>506 Theories of Personality</td>
<td>3</td>
</tr>
<tr>
<td>528 Psychotherapy</td>
<td>3</td>
</tr>
<tr>
<td>4th Semester</td>
<td></td>
</tr>
<tr>
<td>501 Advanced General I Elective</td>
<td>3</td>
</tr>
<tr>
<td>550 Practicum</td>
<td>6</td>
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</table>

#### CHILD CLINICAL

<table>
<thead>
<tr>
<th>Semester</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Semester</td>
<td></td>
</tr>
<tr>
<td>503 Exper. Method</td>
<td>3</td>
</tr>
<tr>
<td>504 Biological Foundations</td>
<td>3</td>
</tr>
<tr>
<td>511 Intro. Psych. Assessment Lab</td>
<td>4</td>
</tr>
<tr>
<td>2nd Semester</td>
<td></td>
</tr>
<tr>
<td>515 IQ Testing Lab-Child</td>
<td>4</td>
</tr>
<tr>
<td>517 Child Psychopathology</td>
<td>3</td>
</tr>
<tr>
<td>522 Advanced Child Assessment</td>
<td>3</td>
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<tr>
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<td>502 Advanced General II</td>
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<td>506 Theories of Development</td>
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<td>528 Psychotherapy</td>
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<td>501 Advanced General I Elective</td>
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<td>550 Practicum</td>
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#### COUNSELING

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<th>Semester</th>
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<td>503 Experimental &amp; Research Design</td>
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<td>511 Psychological Assessment</td>
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<td>582 Theoretical Basis of Vocational &amp; Occupational Psychology</td>
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<td>506 Theories of Personality</td>
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<td>515 Measurement of Intelligence</td>
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<td>583 Assessment Techniques in Counseling Psychology</td>
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<td>3rd Semester</td>
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<td>502 Advanced General Psychology II</td>
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<td>528 Psychotherapy Techniques</td>
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<td>580 Ego Psychology &amp; Related Personality Theories</td>
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<td>581 Psychological Counseling Techniques</td>
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Typical Schedules for Experimental and Industrial are on the next page.
With the approval of the department chairman, a maximum of six hours of credit in disciplines related to psychology may be accepted in fulfillment of the requirements for the M.A. in Psychology degree.

Undergraduate-Gardenate Psychology Courses
The following upper division undergraduate courses have been approved for graduate credit (up to six hours). Catalog descriptions appear in the Undergraduate Catalog.

411 Infant Development
412 Perceptual and Cognitive Development
414 Behavior Disorders of Childhood
420 Clinical Methods in Psychology
421, 422 Practicum in Clinical Psychology
423 Group Psychotherapy Techniques
430 Human Factors Engineering
432 Seminar in Organizational Psychology

Graduate Psychology Courses

501 Advanced General Psychology I [3]
A critical review of the major topics of experimental psychology: learning, motivation, cognition, perception (the sense), thinking and problem solving.

502 Advanced General Psychology II [3]
Problematics involved in the definition of psychology as an empirical science. The effect of the philosophy of science on psychology as a separate discipline.

503 Experimental and Research Design [3]
Prerequisite: Psychology 304, 305, 309, 311 or 316 or equivalents. Advanced experimental design and the relevant statistical analytic techniques will be reviewed. Examples of experiments in various fields of psychology will be studied.

504 Biological Foundations of Psychology [3]
Prerequisite: Psychology 206 or equivalent. A review of the physiological basis of normal behavior. The effects of physiological changes on behavior, such as pathological and drug-induced changes and those caused by fatigue or malnutrition. Physiological changes concomitant with psychopathology.

506 Theories of Personality [3]
Prerequisite: Psychology 220 or permission of instructor. A comparative review of the prevalent theories of personality with special emphasis upon their fundamental models and their similarities and differences.

507 Advanced Social Psychology [3]
General theories of social psychology will be studied in detail, including those of K. Lewin and F. Heider.

508 Theories of Development [3]
Prerequisite: Psychology 210 or permission of instructor. A survey of the major theories of infant and child development including the works of Piaget, Freud, Erikson, and Spitz.

511 Psychological Assessment [4]
Prerequisite: Psychology 320 and permission of instructor. A study of the major instruments used in clinical assessment: their nature, problems, and predictive value; administration and scoring of the major techniques for evaluation of personality and psychopathology; principles of interpretation of these procedures. Three lecture hours, three laboratory hours.

512 Advanced Adolescent and Adult Assessment [3]
Prerequisite: Psychology 511 and Psychology 515 (co-requisite) or permission of instructor. An advanced course dealing with problems of differential diagnosis of psychoses, character disorders, neuroses and brain damage; assessment problems with adolescents and suicide indicators will also be considered.

514 The Measurement of Intelligence [4]
Prerequisite: Psychology 320 or permission of instructor. Administration, scoring and interpretation of the major infant, child and adult intelligence tests, with emphasis on individual tests. Development of IQ tests; theories of intelligence; and current trends and developments in mental assessment. Three lecture hours, three laboratory hours.

516 General Psychopathology [3]
Prerequisite: Psychology 325 or permission of instructor. An intensive survey of the major types of psychopathological disturbances: the causes, symptoms, and dynamics of neuroses, psychoses, character disorders, and psychosomatic disorders.

517 Child Psychopathology [3]
Prerequisite: Psychology 210 and 325 or permission of instructor. An intensive survey of the major types of psychopathological disturbances of infancy and childhood.

522 Advanced Child Assessment [3]
Prerequisite: Psychology 511 and Psychology 515 (co-requisite) or permission of instructor. The problems involved in the diagnostic assessment of children with various handicapping conditions such as brain dysfunction, learning disabilities, retardation, and emotional disturbances.

528 Psychotherapy Techniques [3]
Prerequisite: Psychology 516 or Psychology 517 or Co-requisite: Psychology 506 or 508 and permission of instructor. A survey of the major individual and group psychotherapeutic techniques currently utilized by clinical psychologists. Emphasis will be on the application of the techniques in clinical practice.

529 Behavior Therapy [3]
Prerequisite: Admission to the psychology graduate program or permission of the instructor. An investigation of specific procedures for altering emotional distress and behavior dysfunction as they are utilized within the conceptual framework of clinical psychology.

531 Industrial and Personnel Testing and Evaluation [3]
Prerequisite: Psychology 320. A study of the administration, scoring, and interpretation of the standard tests used by industry for the selection and assessment of personnel.

532 The Social Psychology of Industry [3]
The problems associated with motivation, job satisfaction, and performance of personnel. Special emphasis on the effects of organizational practices.

534 Special Problems in Human Factors Engineering [3]
A seminar course reviewing fundamental problems inherent in applying psychological knowledge and techniques to the development of man-machine systems.

550 Psychological Practicum [3 or 6]
Prerequisite: Permission of instructor. Practical experience in a clinical setting as assigned.

551 Methodology and Research [3]
Prerequisite: Psychology 200, 304, 305, 309, 311 or 316 or equivalents. A survey of statistical techniques and experiments in various
fields of psychology will culminate in individual experiments exemplifying proper research methods. Advanced experimental design will be reviewed.

552 Analysis of Variance [3]
Prerequisites: Psychology 200 and 551 or equivalents. The basic concepts in experimental design, the fundamental assumptions in analysis of variance, analysis of variance and covariance designs, and multiple comparison tests will be reviewed.

554 Naturalistic Methods in Psychology [3]
Prerequisite: Psychology 200 or equivalent. The theory and techniques involved in studying people in their natural environments will be explored. Primary emphasis will be on quasi-experimental designs and methods of systematic observation.

556 Computer Applications in the Behavioral Sciences [3]
Prerequisite: Psychology 200 and Mathematics 501, Part I or the equivalent knowledge (an overview of basic computer systems and basic concepts of Fortran programming) is required. Data processing (organization and statistical analysis), control of experiments, and computer simulation of behavior as theory are considered. Emphasis is on the particular requirements of data resulting from behavioral research and on data preparation and interpretation of results for selected statistical analysis programs.

561 Advanced Animal Learning [3]
Current research in animal learning including such topics as classical and instrumental conditioning and discrimination learning will be reviewed. Theories of animal learning will also be included.

562 Human Learning and Retention [3]
Prerequisite: A course in learning or permission of instructor. The literature in verbal learning, transfer and retention will be reviewed with special emphasis on recent research. Topics to be studied include paired-associate and serial learning, free recall, organization in memory, concept identification, and psycholinguistics.

563 Application of Learning Principles [3]
Prerequisite: A course in learning or permission of instructor. Detailed S-R analyses of specific study methods, intracranial stimulation in humans, selected behavior modification techniques, programmed learning, concept induction in children, and industrial applications of shaping and discrimination techniques.

564 Sensory Processes [3]
An intensive exploration of the neural foundations of sensory experience, with special emphasis on the processing mechanisms at different levels of the various sensory pathways.

566 Seminar in Experimental Child Psychology [3]
Prerequisite: Six hours of child psychology and a course in experimental psychology. The experimental study of child development. Seminar topics will include biogenetic factors in development, sensory processes, learning, perception, motivation, language and cognitive development.

566 Perception [3]
Prerequisite: A laboratory course in a field of experimental psychology. Important issues related to neurophysiological, sensory, and cognitive aspects of perception will be surveyed. These topics include the general theories of Gibson, Brunswik, and the Gestaltists, and some specialized models developed in recent years, especially information-processing models.

580 Ego Psychology and Related Personality Theories [3]
Prerequisite: A course in personality theory or abnormal psychology, or the equivalent. A review of psychoanalytic ego psychology and its extensions to other personality theories. Applications of ego psychology to adjustment problems of the normal individual. Implications of ego psychology theory for community psychology and the positive mental health movement.

581 Psychological Counseling Techniques [3]
Prerequisite: Psychology 580 or permission of instructor. Normally concurrently taken with Psychology 550. A survey of current practices in directive and non-directive personal and vocational counseling, including techniques used in individual, group, and family counseling.

582 The Theoretical Basis of Vocational and Occupational Psychology [3]
A review of theories and basic research underlying vocational development and occupational choice. Current practices in occupational guidance.

583 Assessment Techniques in Counseling Psychology [3]
Prerequisite: Psychology 511 or permission of instructor. A survey of testing and evaluation methods used in personal and vocational counseling.

598 Directed Reading and Research [3]
Independent reading on a topic agreed to by a student and a faculty member. May be repeated once, except it may not be repeated for degree credit by students who also register for Psychology 599, Thesis.

599 Thesis [3 or 6]

Department of Public Affairs

The Department of Public Affairs offers the following courses in support of other graduate programs.

530 Seminar in Public Employee Labor Relations [3]
Prerequisite: Graduate standing or permission of the department. An examination of public employee labor relations, including unionization, representational elections, bi-lateral policy negotiations, administration of agreements, management rights, union and membership security, the strike issue and grievance procedures, impact on public administration, and assessment of future developments.

550 Intergovernmental Relations in the United States [3]
Prerequisite: Graduate standing or permission of instructor. An in-depth study of intergovernmental relations, with emphasis upon contemporary patterns of fiscal relations and operational grant programs.
Spanish
Department of
Foreign Languages

Associate Professor Elstun (Chairman)
Spanish Faculty
Associate Professors Aguera, Font
Assistant Professors Brooks, Bufill, Hazera
Instructor Urso
Lecturers Chaves, Villavicencio

Master of Arts in Spanish
This program offers courses in the Spanish language, literary theory and criticism, and Spanish and Spanish-American literature, culture and civilization. The degree may be terminal for those planning to teach at the secondary and community college levels, or it can provide sound preparation for students who plan to continue towards the Ph.D. at another institution.

Departmental Entrance Requirements. In addition to fulfilling the general entrance requirements, applicants are expected to have a B.A. degree with a major in Spanish, although students with majors in related fields who know the language are encouraged to apply. The Department may require that undergraduate deficiencies be made up in courses without graduate credit.

Other Requirements

1. A grade point average of 2.75 on a 4.00 scale in the last two years of undergraduate work or compensatory qualifications.

2. Two letters of recommendation from professors of Spanish with whom the applicant has studied or from others directly familiar with his professional competence.

Departmental Degree Requirements. In addition to fulfilling the general degree requirements, the candidate must meet the following departmental requirements:

1. Completion of 30 hours of course work, including Spanish 500 and Spanish 515. Six of the 30 hours may be earned in a related field (e.g., Latin American history) approved in advance by the student’s faculty adviser. A list of related fields and courses is available on request. At the student’s option, six hours may also be earned in Spanish 599 (Thesis). If a student elects not to write a thesis, his program must include at least two seminars (Spanish 520 and above) in which substantial research papers are required.

2. Satisfactory performance on a written comprehensive examination.

3. Reading proficiency in one other foreign language, as demonstrated in a departmentally administered examination.

Undergraduate-Graduate Courses
Up to six of the student’s 30 hours of course work may be earned in the following upper-division undergraduate courses, which have been approved for graduate credit. Catalog descriptions appear in the Undergraduate Catalog.

320 Linguistics of the Spanish Language [3]
400 Stylistics [3]
401 Latin American Poetry [3]
403, 404 Contemporary Spanish Literature [3, 3]
407, 408 Latin American Novel and Short Story [3]
410 Cervantes [3]
412 Special Studies in Literature

Graduate Courses
500 History of the Spanish Language [3]
A scientific study applying the concepts of transformational-generative grammar to the description and evolution of the structure of the Spanish language.

505 Applied Spanish Stylistics [3]
A study of creative writing, its form and expression, through text analysis from two or more selected genres: novel, essay, drama, short story and poetry. Practice in creative writing through exercises, composition and workshops.

510 Phenomenology of Language [3]
A study of modern theories of language: language and existence, language and thinking, language as the giver of meaning, language as a mode of culture. Authors such as Heidegger, Ricoeur and Merleau-Ponty will be studied.

515 Literary Theory and Criticism [3]
Study of the nature of the literary work; analysis of contemporary critical approaches to Hispanic literature.

520 Seminar in Medieval Spanish Literature [3]
An intensive study of a major work or of the drama or poetry of this period. Specific content of the course will be announced before registration.

525 Seminar in Renaissance Literature [3]
Study of a literary movement or selected authors of the Spanish Renaissance.

530 Seminar in the Literature of the Golden Age [3]
Study of a literary genre or a major author of Spanish literature of the Golden Age.

535 Seminar in Don Quixote [3]
Intensive study of Don Quixote and the major critical approaches to the work.

540 Seminar in Nineteenth Century Literature [3]
A study of the social, philosophical and aesthetic preoccupations of the nineteenth century as found in the works of major writers.

545 Seminar in Twentieth Century Poetry [3]
Study in depth of a major poet or poets in a particular generation or movement.

550 Seminar in Twentieth Century Drama [3]
Study of major dramatists such as those of the Generation of 1898 (e.g., Benedente) and the contemporary theatre (e.g., Buero Vallejo).

555 Seminar in Twentieth Century Prose [3]
Intensive study of a major writer, theme or movement in the novel or the essay.

560 Seminar in Spanish American Poetry [3]
Study of three or more major poets of a given period. The literary and social atmosphere of the period will be emphasized.

565 Seminar in Spanish American Drama [3]
Study of three or more playwrights who have made a major contribution to the development of the theatre. Special attention will be given to social and philosophical themes.

570 Seminar in Spanish American Prose [3]
Study of a selected theme, movement or author in the novel, short story or essay.

575 Seminar in Literature and Art [3]
A comparative analysis of a literary theme or style in relation to other media (e.g., painting, architecture, film) for an integral understanding of the arts.

580 Seminar in Literature and Society [3]
Intensive study of a literary topic, a genre or selected authors in relation to a given economic, social or political system in Spain or Latin America.

585 Seminar in Literature and Ideas [3]
A study of major ideological-philosophical themes and their artistic expression in literature.

599 Thesis [3, 3]
Individual research and writing of a thesis under the guidance and supervision of a faculty member.
Directory

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Elis Blake, Jr. .................................................. Reston
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Anita L. Capps .................................................. Arlington
Alvin E. Conner, M.D. ....................................... Manassas
A. George Cook, III ......................................... Alexandria
John J. Conson .................................................. Arlington
William C. Frogale ............................................ Falls Church
John T. Hazel, Jr., Vice Rector .............................. Fairfax
Carl V. Lyon .................................................... Annandale
John W. Macy, Jr. .............................................. McLean
Warren J. Pace ................................................ Falls Church
Lutrelle F. Parker, Sr. ........................................ Arlington
Lester G. Sturgill .............................................. Leesburg
Currell H. Tiffany ............................................. Warrenton

Louise F. Lowe, Executive Assistant

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Finance and Planning Committee ....................... Bradley, Conner, Frogale, Hazel, *Sturgill
Nominating Committee ....................................... *Bradley, Lyon, Parker, Wood
Student Affairs Committee ................................ Capps, Cook, Lyon, *Tiffany
Ad Hoc Committee on Long-Range Land Use Planning ........................................ Bradley, Conner, Lyon, *Parker

*Chairman

†Resigned January, 1975. New member C. Harrison Mann, Jr. (Arlington)

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Benjamin H. Dozier, M.S.C., Bursar

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Sheppard B. Komina, Ph.D., Vice President

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J. William Gephart, M.S., Director

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Joseph I. Gurfein, M.S., Director

Institutional Analysis
John P. Sullivan, M.A., Director

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Patrick B. Alexander, B.A., Coordinator

Projects
Michael T. Fish, M.A., Coordinator

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Donald J. Mash, Ph.D., Dean

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Raymond H. Spuhler, M.A., Director

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Charles A. Repp, Ed. D., Director

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Walter J. Moretz, Jr., Ph.D., Director

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Kenneth E. Bumphorn, M.A., Director

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Ronald J. Jensen
Eugenie V. Mielczarek
Robert Pasnak
Hale N. Tongren
James R. Wall
William S. Willis

Department Chairmen

Biology—Stephan R. Taub

Business Administration—Algin B. King

Economics—William P. Snively

Education—James M. Snyder

English—Michael G. Sundell

History—Joseph L. Harsh

Mathematics—John A. Oppelt

Psychology—Jeanne C. Meltlinger

Spanish (Department of Foreign Languages)—Esther N. Eistun

1974-75

Graduate Faculty


Altmann, Charlotte Hall, Associate Professor of Psychology, B.A., University of Minnesota, 1929; M.A., Clark University, 1933; Ph.D., University of Chicago, 1954.


Baxter, Ralph Clayton, Professor of English, Associate Vice President for Academic Affairs, A.B., University of Detroit, 1958; M.A., Wayne State University, 1959; Ph.D., Wayne State University, 1964.

Bindel, Henry Joseph, Jr., Associate Professor of Education, Executive Secretary, Department of Education, B.S., Eastern Kentucky University, 1950; M.A., Eastern Kentucky University, 1951; Ed.D., University of Maryland, 1971.

Bloch, Howard Ruben, Associate Professor of Economics, A.B., Duke University, 1958; Ph.D., Princeton University, 1964.

Bolstein, Arnold Richard, Assistant Professor of Mathematics, B.A., Wagner College, 1962; M.S., Purdue University, 1964; Ph.D., Purdue University, 1967.

Booth, Leon Estel, Professor of History, Dean of the College of Arts and Sciences, B.S., University of Missouri; A.M., University of Missouri, 1962; Ph.D., University of Illinois, 1966.

Bradley, Ted Ray, Associate Professor of Biology, B.S., Rollins College, 1962; M.A., University of North Carolina, 1966; Ph.D., University of North Carolina, 1968.

Brown, Lorraine Anne, Associate Professor of English, B.A., University of Michigan, 1958; M.A., University of Michigan, 1961; Ph.D., University of Maryland, 1968.

Brown, Stephen Jeffrey, Professor of English, B.A., Yale University, 1950; B.A., Cambridge University, 1952; M.A., Yale University, 1954; Ph.D., Yale University, 1959.

Buffardi, Louis Carl, Assistant Professor of Psychology, A.B., University of Rochester, 1964; M.A., Fordham University, 1966; Ph.D., Kansas State University, 1970.


Cabell, Mary Katherine, Associate Professor of Mathematics, B.A., University of Tennessee, 1955; M.A., University of Virginia, 1957; Ph.D., University of Virginia, 1960.


Cassara, Ernst, Professor of History, A.B., Tufts College, 1952; B.D., Judson College, 1954; Ph.D., Boston University, 1957.


Chung, Jae Wan, Assistant Professor of Economics, B.C., Seoul National University, 1962; M.C., Seoul National University, 1965; M.A., State University of New York at Buffalo, 1969; Ph.D., New York University, 1972.

Cohelan, Evelyn Ellis, Professor of Nursing, Director of Nursing Program, B.S., University of California at Berkeley, 1951; M.S., University of California at Berkeley, 1953; Ed.D., University of California at Berkeley, 1963.

Cohen, Lester Ray, Assistant Professor of Economics, A.B., Rutgers College, 1968; M.A., University of California at Los Angeles, 1971; Ph.D., University of California at Los Angeles, 1973.

Cooper, George David, Associate Professor of Psychology, A.B., Shepherd College, 1957; Ph.D., Duke University, 1962.

DeMarco, Virginia Marie, Assistant Professor of History, A.B., University of Missouri, 1961; M.A., Stanford University, 1963; Ph.D., Stanford University, 1967.

Dorey, Frederick James, Associate Professor of Mathematics, B.A., Boston College, 1964; M.A., Boston College, 1966; Ph.D., University of Massachusetts, 1969.

Draper, Richard Noel, Associate Professor of Mathematics, B.S., Baldwin-Wallace College, 1959; Ph.D., Johns Hopkins University, 1966.

Duck, Lloyd Earl, Assistant Professor of Education, A.B., College of William and Mary, 1966; M.A.T., University of Virginia, 1968; Ph.D., University of Virginia, 1974.

Dzama, Mary Ann, Assistant Professor of Education, B.A., Carlow College, 1964; M.Ed., Duquesne University, 1968; Ed.D., University of Virginia, 1972.

Early, Stephen Tyree, Jr., Professor of Political Science, Chairman, Department of Public Affairs, B.A., University of Virginia, 1948; M.A., University of Virginia, 1950; Ph.D., University of Virginia, 1954.


Emsliey, Michael Gordon, Professor of Biology, B.S., Imperial College of Science and Technology, University of London, 1953; A.R.C.S., Imperial College of Science and Technology, University of London, 1953; Ph.D., University of London, 1964.

Ernst, Carl Henry, Associate Professor of Biology, B.S., Millersville State College, 1960; M.Ed., West Chester State College, 1963; Ph.D., University of Kentucky, 1969.

Font, María Teresa, Associate Professor of Spanish. Licenciado en Filosofía y Letras, Universidad de Oriente, 1960; Ph.D., University of Maryland, 1969.


Fox, Philip Sheridan, Visiting Professor of Health and Physical Education. B.S., Wilson Teachers College, 1936; M.A., Teachers College, Columbia University, 1938; Ed.D., Columbia University, 1953.


Gantz, Donald Thomas, Assistant Professor of Mathematics. A.B., Fordham University, 1966; M.A., University of Rochester, 1971; Ph.D., University of Rochester, 1974.

Garson, Helen Sylvia, Associate Professor of English, Associate Dean of the College of Arts and Sciences. A.B., The George Washington University, 1946; M.A., University of Georgia, 1947; Ph.D., University of Maryland, 1967.

Gessner, Theodore Lee, Assistant Professor of Psychology. B.S., Fordham University, 1962; M.A., University of Maryland, 1967; Ph.D., University of Maryland, 1971.

Gilstrap, Robert Lawrence, Associate Professor of Education, A.A., Kilgore College, 1953; B.S., North Texas State University, 1954; M.Ed., North Texas State University, 1960; Ed.D., George Peabody College for Teachers, 1963.

Given, Barbara Knight, Assistant Professor of Education, A.A., Colorado Woman’s College, 1955; B.S., Kansas State University, 1958; M.Ed., University of Oregon, 1967; Ph.D., The Catholic University of America, 1974.

Gleisner, Richard Anthony, Assistant Professor of History (on leave). B.S., University of Wisconsin, 1958; M.A., Marquette University, 1959; Ph.D., University of Maryland, 1968.

Gras, Vernon Walter, Associate Professor of English. M.A., University of Chicago, 1952; Ph.D., University of Chicago, 1967.


Greer, William Louis, Assistant Professor of Chemistry. B.A., Vanderbilt University, 1965; Ph.D., University of Chicago, 1969.

Harsh, Joseph Lee, Associate Professor of History, Acting Chairman, Department of History, B.A., Gettysburg College, 1963; M.A., Rice University, 1966; Ph.D., Rice University, 1970.

Hawkes, Robert Thomas, Jr., Assistant Professor of History, Director of Extended Studies, B.A., Randolph-Macon College, 1964; M.A., University of Virginia, 1967.

Hayn, Rolf, Associate Professor of Economics. A.B., Indiana University, 1944; A.M., Indiana University, 1948; Ph.D., University of Wisconsin, 1954.


Hill, Thomas Harry, Associate Professor of Music Education. B.M., Boston University, 1949; M.M., Boston University, 1955; D.M.A., The Catholic University of America, 1970.


Houlgate, Laurence Davis, Associate Professor of Philosophy, B.A., Los Angeles State College, 1951; M.A., University of California at Los Angeles, 1965; Ph.D., University of California at Los Angeles, 1967.

Jackson, James Louis, Professor of English. A.B., University of Illinois, 1938; M.A., University of Illinois, 1940; Ph.D., University of Illinois, 1949.

Jensen, Ronald Jacob, Associate Professor of History. B.A., Cce College, 1961; A.M., Indiana University, 1965; Ph.D., Indiana University, 1971.

Jordan, Nehemiah, Professor of Psychology. B.A., Brooklyn College, 1948; M.A., University of Kansas, 1950; Ph.D., University of Kansas, 1952.

Joslin, James Kelvin, Assistant Professor of Biology. B.S., University of Wisconsin, 1960; M.S., University of Wisconsin, 1962; Ph.D., Michigan State University, 1971.


Keith, Nobuko Tsauki, Assistant Professor of English. B.A., Tsuda College, 1961; M.A., University of Nebraska, 1964; Ph.D., University of Nebraska, 1967.


Kelso, Donald Preston, Assistant Professor of Biology. B.S., University of Tennessee, 1962; M.S., University of Florida, 1965; Ph.D., University of Hawaii, 1970.


Kelly, Emelia Louise, Associate Professor of Health and Physical Education. B.S., Mary Washington College, 1944; M.A., New York University, 1947; Ph.D., University of Washington, 1956.

Kiley, William Thomas, Associate Professor of Mathematics. B.S., St. Mary’s College, 1960; Ph.D., Brown University, 1969.

King, Algin Brady, Professor of Business Administration, Chairman, Department of Business Administration (first semester). B.A., University of South Carolina, 1947; M.S., New York University, 1953; Ph.D., Ohio State University, 1966.


Kominars, Sheppard Benet, Professor of English, Vice President for Planning and Program Development. B.A., Kenyon College, 1953; M.A., Columbia University, 1958, Ph.D., Boston University, 1966.

Kresskamp, Kari, Associate Professor of Philosophy. B.A., University of Minnesota, 1935; M.A., The Catholic University of America, 1939; Ph.D., The Catholic University of America, 1939.

Krothe, Marc Lee, Assistant Professor of Health and Physical Education. B.S., Westchester State College, 1965; M.A., University of Maryland, 1967; Ph.D., University of Pittsburgh, 1971.


Martin, William Reed, Associate Professor of Education, A.B., Gettysburg College, 1955; M.A., Syracuse University, 1958; Ph.D., University of Minnesota, 1968.

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Mika, Paul John, Associate Professor of Geography. A.B., University of Pittsburgh, 1954; A.M., The George Washington University, 1958; Ph.D., Clark University, 1965.


Montebello, Mary S., Professor of Education. B.S., Ohio Dominican College, 1950; M.A., Ohio State University, 1954; Ph.D., Ohio State University, 1964.

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Oppen, John A., Professor of Mathematics, Chairman, Department of Mathematics. A.B., Lovell College, 1958; M.S., University of Notre Dame, 1961; Ph.D., University of Notre Dame, 1965.

Pacheco, Josephine Fennell, Associate Professor of History. B.A., University of Richmond, 1941; A.M., University of Chicago, 1943; Ph.D., University of Chicago, 1950.

Papakonstantopoulos, Dimitrios A., Associate Professor of Physics, Chairman, Department of Physics. B.S., University of Athens, 1961; D.I.C., Imperial College of London, 1963; M.S., University of London, 1964; Ph.D., University of London, 1967.

Pasnak, Robert, Associate Professor of Psychology, B.S., University of Maryland, 1964; M.S., Pennsylvania State University, 1966; Ph.D., Pennsylvania State University, 1969.

Perkins, A. Cordell, Assistant Professor of Education, B.S., Utah State University, 1966; M.A., Utah State University, 1969; Ph.D., Ohio State University, 1973.

Phillips, Samuel Hudgins, Jr., Associate Professor of Economics, B.A., College of William and Mary, 1958; M.A., University of Virginia, 1960; Ph.D., University of Virginia, 1966.

Pike, Lawrence Herbert, Assistant Professor of Biology, A.B., Colby College, 1966; M.S., University of Oregon, 1969; Ph.D., University of Oregon, 1971.

Pugh, Evelyn Littleton, Associate Professor of History (on leave), B.S., East Carolina College, 1952; A.M., Duke University, 1959; Ph.D., The American University, 1966.

Quinn, James Taylor, Assistant Professor of Art, B.F.A., Virginia Commonwealth University, 1964; M.F.A., Virginia Commonwealth University, 1966; Ph.D., Ohio University, 1972.


Rice, Michael David, Assistant Professor of Mathematics, B.A., Western Michigan University, 1968; M.A., Western Michigan University, 1970; Ph.D., Wesleyan University, 1973.

Rich, Robert Martin, Assistant Professor of Sociology, A.B., University of Illinois, 1960; M.A., University of Chicago, 1962; Ph.D., University of Chicago, 1966.

Saeed, Mian Muhammad, Associate Professor of History, B.A., Islamia College, University of the Punjab, Pakistan, 1955; M.A., Islamia College, University of the Punjab, Pakistan, 1956; Ph.D., University of London, 1965.

Sanford, James Francis, III, Assistant Professor of Psychology, B.A., Ohio Wesleyan University, 1966; M.S., Kansas State University, 1968; Ph.D., Kansas State University, 1973.

Superstone, Stephen H. K., Assistant Professor of Mathematics, B.E.P., Cornell University, 1962; M.A., University of Maryland, 1965; Ph.D., University of Maryland, 1970.

Schindler, Clayton Moss, Professor of Education, Dean of the College of Professional Studies, A.B., Mount Union College, 1934; M.S., University of Southern California, 1946; Ph.D., Ohio State University, 1950.

Sechelsman, Betty Jane, Associate Professor of Education, B.S., Indiana University, 1953; M.S., Indiana University, 1963; Ed.D., Indiana University, 1967.

Seidman, Stephen Benjamin, Assistant Professor of Mathematics, B.S., City College of New York, 1964; A.M., University of Michigan, 1965; Ph.D., University of Michigan, 1968.


Shaffir, Jay Charles, Associate Professor of Biology, B.S., Bucknell University, 1961; Ph.D., Cornell University, 1967.

Stiff, Frederick Howard, Assistant Professor of Business Administration, B.S., Worcester Polytechnic Institute, 1964; M.S., New York University, 1966; Ph.D., New York University, 1974.

Sims, John Hensel, Assistant Professor of Business Administration, B.S., United States Naval Academy, 1940; M.B.A., Harvard University, 1950; Ph.D., University of California at Berkeley, 1971.

Skog, Judith Ellen, Assistant Professor of Biology, B.S., Tufts University, 1966; M.S., University of Connecticut, 1968; Ph.D., Cornell University, 1972.

Smith, Donald Francis, Associate Professor of Education, B.S., East Carolina University, 1960; M.A., East Carolina University, 1960; Ed.D., The American University, 1968.

Smith, John Melvin, Associate Professor of Mathematics, Chairman, Department of General Studies, B.S., University of Richmond, 1959; M.A., University of Maryland, 1961; Ph.D., University of Maryland, 1970.

Snoddy, William Pennington, Professor of Economics, Chairman, Department of Economics, B.A., University of Virginia, 1940; M.A., University of Virginia, 1941; Ph.D., University of Virginia, 1950.

Snoddy, Henry Nicholas, Assistant Professor of Education, B.S., Georgetown University, 1951; M.Ed., University of Virginia, 1963; Ed.D., University of Virginia, 1970.
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For numbers not listed telephone (703) 323-2000.
George Mason University is located on the southern boundary of Fairfax City. To reach the Main Campus, take the Capital Beltway (Route 495) to Exit 6 West (Route 236) to Fairfax City, and go south on University Drive or south on Route 123 (approximately 1 1/2 miles), or take Interstate Route 66 to the Fairfax exit (Route 123 South).
Graduate Catalog

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