NOTICE:

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.

Although this catalog and any other information conveyed to students or to prospective students were prepared on the basis of the best information available at the time of publication, all information, including statements of tuition and fees, course offerings, admissions, and graduation requirements, is subject to change without notice.

Privacy of Student Records

Annually, George Mason University informs students of the Family Educational Rights and Privacy Act of 1974. This Act, with which the institution intends to comply fully, was designated to protect the privacy of education records, to establish the right of students to inspect and review their education records, and to provide guidelines for the correction of inaccurate or misleading data through informal and formal hearings. Students also have the right to file complaints with The Family Educational Rights and Privacy Act Office (FERPA) concerning alleged failures by the institution to comply with the Act.

Local policy explains in detail the procedures to be used by the institution for compliance with the provisions of the Act. A copy of the policy can be found in the Office of the Registrar.

The office mentioned also maintains a Directory of Records which lists all education records maintained on students by this institution.

Questions concerning the Family Education Rights and Privacy Act may be referred to this same office.

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.

George Mason University is an Equal Opportunity/Affirmative Action Institution committed to the principle that access to study or employment opportunities afforded by the University, including all benefits and privileges, be accorded to each person—student, faculty or staff member—on the basis of individual merit and without regard to race, color, religion, national origin, sex or age (except where sex or age is a bona fide occupational qualification). This principle shall be promoted in every phase of University operations by institution of procedures necessary to insure adherence. Furthermore, affirmative action will be taken to attract, utilize, and serve minorities, the handicapped, and other persons to insure full participation in the opportunities afforded by the University. Insofar as possible, the University will make reasonable accommodations to enable the handicapped to undertake work or study for which they qualify.

The University is also committed to the principle prescribed in Title IX of the Education Amendments of 1972, which specifically prohibits discrimination on the basis of sex in educational programs or activities which receive Federal funds.

Any student, employee or applicant for admission or employment who believes that he/she has not been dealt with by this University in accordance with the principles and requirements stated above may address the Office of Affirmative Action, George Mason University, and then state the facts that occasioned the complaint, present any relevant documents or correspondence, and request assistance in resolution of the matter.

George Mason University
June 1978
The Graduate School

The Graduate Catalog is published annually by the Office of Publications, George Mason University, 4400 University Drive, Fairfax, Virginia 22030. Designed and illustrated by Robert Hickey, edited by Joy Willett. Photographs by David Ide.
## GRADUATE FACULTY
### GEORGE MASON UNIVERSITY
#### 1978 - 1979

### BIOLOGY (18)

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**GMU Graduate Faculty**  
1978-1979

**EDUCATION, continued:**
- Schindler, Clayton M.  
- Schuchman, Betty Jane  
- Sears, Carol J.  
- Seligman, Linda  
- Smith, Donald F.  
- Snyder, James M.

**ENGLISH (31)**
- Bergmann, Johannes  
- Bjarkman, Peter C.  
- Brown, Lorraine A.  
- Brown, Stephen J.  
- Brunette, Peter  
- Eisner, Greta  
- Foreman, Joel  
- Gallehr, Donald R.  
- Garson, Helen S.  
- Gras, Vernon  
- Grossberg, Frederick  
- Jackson, James L.  
- Karlson, Robert  
- Keaney, Winifred G.  
- Keith, Nobuko  
- Kelley, Michael R.  
- Klappert, Peter  
- Kuebrich, David  
- Molin, S. Eric  
- Nadeau, Robert  
- O'Conner, John S.  
- Owens, Collin  
- Palmieri, Anthony  
- Radner, John  
- Rutledge, Amelia  
- Shreve, Susan  
- Story, Patrick  
- Sundell, Michael G.  
- Thaiss, Chris  
- Walls, Aileen S.  
- Walowit, Karen

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- Aguera, Victoria G.  
- Cordero, Anne  
- Font, Maria T.  
- Goldin, Mark  
- Hazera, Lydia D.  
- Hecht, Leo ex. off.  
- Meyer, Henry  
- Tedder, James  
- Willis, William S.
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### PSYCHOLOGY (25)

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### PUBLIC AFFAIRS (3)

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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 since hours vary, it is best to make appointments in advance.
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Graduate Academic Calendar 1978-79

Fall Semester 1978

Thursday, June 15                  Deadline for filing Graduate School admission applications for Fall 1978
Monday, June 19 through            Early registration for certain newly admitted students (by invitation only)
     Friday, June 23
Friday, August 11                   Tuition and fees due for students who registered early
Wednesday, August 23 through       Registration (for times and priorities see calendar in Schedule of Classes)
     Monday, August 28
Wednesday, August 30                First day of classes
Saturday, September 2 through      Labor Day recess
     Monday, September 4
Tuesday, September 12               Last day for adding new courses (evening and graduate sections)
Friday, September 22                Deadline for filing degree applications in Office of the Graduate Dean for January 1979 graduation
Saturday, October 7 through         Columbus Day recess (NOTE: Monday classes and laboratories will meet this week only on Wednesday)
     Monday, October 9
Wednesday, October 11               Monday classes and laboratories meet at scheduled times and places; Wednesday classes and laboratories do not meet this week
     Friday, October 13

Patriots Day (regular class schedule, special activities)

Tuesday, October 31                Last day to drop a course without incurring a mark of "W"
Wednesday, November 15             Deadline for filing Graduate School admissions applications for Spring 1979
Thursday, November 16               Spring Semester Schedule of Classes and registration calendar published
Thursday, November 23 through       Thanksgiving recess
     Sunday, November 26
Monday, November 27 through         Early registration (for times and priorities see calendar in Schedule of Classes)
     Friday, December 1
Friday, December 1                   Deadline for submitting thesis to the Office of the Graduate Dean for January 1979 degree candidates
Monday, December 11                 Last day of classes
Tuesday, December 12 (to 4:00 P.M.) Study day
     Tuesday, December 12 (4:00 P.M.) Examinations through Wednesday, December 20

1978

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http://catalog.gmu.edu
Spring Semester 1979

Monday, January 8
Tuition and fees due for students who registered early
Saturday, January 13
Winter commencement
Tuesday, January 16 through Thursday, January 18
Registration (for times and priorities see calendar in Schedule of Classes)
Monday, January 22
First day of classes
Friday, February 9
Deadline for filing degree applications in Office of the Graduate Dean for May 1979 graduation
Saturday, March 10 through Sunday, March 18
Mid-semester recess
Thursday, March 15
Deadline for filing Graduate School admission applications for Summer 1979
Friday, March 30
Last day to drop a course without incurring a mark of "W"
Monday, April 6
Recommended filing date for financial aid applications for Summer 1979
Monday, April 16
Fall Semester Schedule of Classes and registration calendar published
Friday, April 20
George Mason Day (regular class scheduled, special activities)
Monday, April 23 through Friday, April 27
Early registration (for times and priorities see calendar in Schedule of Classes)

Friday, April 27
Deadline for filing degree applications in Office of the Graduate Dean for August 1979 graduation
Friday, April 27
Deadline for submission of thesis to Office of the Graduate Dean for May 1979 degree candidates
Tuesday, May 1
Recommended filing date for financial aid applications for 1979-80 session
Friday, May 4
Last day of classes
Saturday, May 5 through
Study days
Monday, May 7 (to 4:00 P.M.)
Examinations through Tuesday, May 15
Saturday, May 19
Spring commencement
Friday, June 15
Deadline for filing Graduate School admission applications for Fall 1979
Friday, July 13
Deadline for submission of thesis to the Office of the Graduate Dean for August 1979 degree candidates

Summer Session 1979

Summer Session consists of several terms, ranging in length from five to eight weeks, during the period May 28-August 5. Classes are offered during both day and evening hours. For details, consult the Summer Session Catalog which is available at the end of February.

1979

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http://catalog.gmu.edu
Profile of George Mason University

History
George Mason University, the state university in Northern Virginia, 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. 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. By the end of 1972 the University's Main Campus had reached its current size of 567 acres.

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
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 persistent 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 achieve 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 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 in 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)

The University Today

George Mason University offers a wide range of undergraduate and graduate degree programs at two Fairfax campus locations; courses are also taught at more than 25 off-campus sites in the region.

The University's Main Campus is located just south of the City of Fairfax at Route 123 and Braddock Road, with three main entrances: University Drive off Route 123, Roanoke Lane off Braddock Road, and Shenandoah Lane off Roberts Road. The North Campus is situated within the City of Fairfax on Route 50/29/211. Both campuses are within sixteen miles of 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 10,500 day and evening students through the College of Arts and Sciences, the College of Professional Studies, the School of Business Administration, and the Graduate School. A Summer Session provides courses for almost 5,500 students.

George Mason University has a diverse, metropolitan student body. Five hundred students live in apartments on the Main Campus; all others commute to the two Fairfax campuses from the greater Washington, D.C., area. Half the students are employed while attending the University on a part-time basis; eight percent are veterans using financial provisions of the GI Bill. Of the almost even numbers of men and women, one-third are married; the average student is twenty-five years old. About 37% of the students major in arts and science programs; 27% in business; and 14% in nursing. The remainder enroll in programs and courses such as education, fine and performing arts, or public administration.

In the development of George Mason's 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 Student Union, a physical education building, a biology greenhouse, and several modern classroom buildings are situated on the Main Campus.

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

By June 1978, construction will begin on the second phase of Clarence Robinson Hall, a four-story addition scheduled for completion by Fall 1980. Plans for the use of this facility call for a television production studio; laboratories for geography, cartography, biology, the physical sciences, and electrical engineering; departmental offices for economics, sociology, and business administration; and a number of classrooms.

The University has resubmitted requests for design monies for a second tower addition to the library, for a second phase of the physical education building, and for a permanent administration building. Working drawings have been completed for a new academic building, Academic III, to house all of psychology, geology, and the research components of biology and physics; the University is awaiting construction funds for this facility.
Nine new three-story apartments on the Main Campus were opened to students during 1977-78. Five hundred students share two-, four-, and six-person units which provide full living accommodations. In addition to on-campus housing, the Office of the Student Housing Coordinator can assist students in finding suitable housing in the vicinity.

University library services are provided on both Fairfax campuses. An open stack arrangement encourages direct access to the collections which number 160,816 volumes and 206,126 microform units. Approximately 2,300 current periodical titles are received. The library is a selective depository for United States Government publications. Services available to students and faculty at both campus locations include interlibrary loans.

The Research Center for the Federal Theatre Project contains the major collection of playscripts, radioscapes, set and costume designs, and other creative materials produced by the Federal Theatre of the 1930's. Based on more than 40,000 items placed on deposit at George Mason by the Library of Congress in 1974, the collection also includes gifts from private individuals and a growing oral history library. The Center is housed in the Fenwick Library and administered in conjunction with the Department of English. Approved students in various disciplines make use of its resources.

Students 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.

Counseling, testing, financial aid, job placement, career planning, and health insurance are among the many services available to students.

Campus clubs, student publications, student government, and intramural and intercollegiate athletics offer students a variety of activities in which to participate.

Accreditation
  George Mason University is accredited by the Southern Association of Colleges and Schools, the Council of Graduate Schools in the United States, the National Council for Accreditation of Teacher Education, and the Conference of Southern Graduate Schools.

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.

Academic Divisions
  George Mason University is currently composed of four separate colleges and schools, each with its own faculty and degree programs.

  The College of Arts and Sciences offers courses of study leading to the Bachelor of Arts degree with majors in 22 areas: American studies, art, biology, chemistry, dramatic arts, economics, English, European studies, French, geography, German, government and politics, history, international studies, Latin American studies, mathematics, music, philosophy, physics, psychology, sociology, and Spanish. Courses of study leading to the Bachelor of Science degree are available in biology, chemistry, economics, law enforcement, mathematics, physics, psychology, public administration and social welfare. The College also offers a Bachelor of Music degree. A two-year engineering program designed to meet most of the basic requirements of the standard engineering curriculum is also offered.

  The College of Professional Studies offers the following degree programs: Bachelor of Science in Education, with majors in early childhood education, elementary education, and health and physical education; Bachelor of Science in medical technology, and in fire administration and technology; and a Bachelor of Science in nursing.

  The School of Business Administration offers a course of study leading to the Bachelor of Science in Business Administration.

  The Graduate School offers courses of study leading to the Master of Arts in Economics, English, History, Psychology, and Spanish; the Master of Business Administration; the Master of Education in Elementary Education, Guidance and Counseling, Reading, School Administration and Supervision, Secondary Education, and Special Education; the Master of Public Administration; and the Master of Science in Biology and Mathematics. A Master of Arts in Teaching is offered in History.

  The Office of Extended Studies coordinates the evening courses and undergraduate programs of the College of Arts and Sciences, the College of Professional Studies, and the School of Business Administration. A number of bachelor's degree programs are completely available in the evening. It also performs a number of functions generally associated with continuing and adult education. Special academic programs offered through the Office of Extended Studies originate in the appropriate college or school of the University, and hence are subject to official University regulations and procedures. It administers a program of regular undergraduate and graduate credit courses of the colleges and schools of the University at convenient off-campus locations throughout Northern Virginia. Off-campus credit courses are fully applicable to the residence and degree requirements of the University. Off-campus class schedules are included in the University's regular schedule of classes and a separate off-campus schedule of classes each semester. Extended Studies also administers the Senior Citizens Higher Education Act of 1974 as applicable to the University.

Public Service and Non-Credit Offerings
  Non-credit courses, workshops, institutes and programs offered by the University are coordinated or administered through the Office of Extended Studies. The University's on-going series of non-credit educational activities serve a variety of community and public service needs. Each semester a series of short courses which may be taken for personal enrichment, professional advancement, or recreation is offered to the public at a modest cost. Course offerings, schedules, and fees are available in the non-credit brochure published semi-annually.

  Other public service offerings include conferences, workshops, and institutes of a more specialized nature offered at the request of governmental, industrial, business, and professional groups to meet in-service training needs.

  The University will award Continuing Education Units (CEU) to students who have successfully completed any non-credit activity for which CEU's are designed.
General Information

Student Activities

At George Mason University, learning is not confined to the classroom. In addition to extensive academic offerings, George Mason students find a variety of activities 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.

A student is ineligible to hold elective or appointive office in any organization or activity associated with the University if his cumulative grade point average is less than 2.000. Moreover, any student on probation is ineligible to participate in any athletic or other activity representing the University on either an intercollegiate or club level and/or to serve as a working staff member of any student organization. It is the responsibility of the individual student to notify his organization when he becomes ineligible.

The student's academic dean, however, has the authority to remove the restriction on activities, in whole or part.

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 80 student organizations on campus spanning a broad range of interests, including political, forensic, dramatic, musical, journalistic, scientific, recreational, business, social, religious, and fellowship. Participation in student activities is limited to bona fide registered students.

All recognized student clubs and organizations are members of the Student Government Inter-Club Council. Membership in the Council provides opportunities to interact with other groups, access to file and storage space for equipment and materials, involvement in the planning and development of activities on campus, and a channel of communication with University administration regarding student activities on campus.

The Student Activities Office located in Room 310 of the Student Union (323-2574) provides regularly updated listings of student organizations with names and phone numbers of contact person(s) in each organization and a "how-to" resource handbook for student leaders. The Office also serves in a consulting role with students or student organizations planning programs for students, and assists new clubs in attracting members and obtaining recognition.

Student Union

Most non-academic activities and programs at the University take place in the Student Union. The offices of Student Government, Vice President for Student Affairs, Associate Dean for Student Life, Coordinator of the Student Union, as well as those of Career Planning and Placement, Cooperative Education, Financial Aid, Counseling, Veterans Affairs, Student Activities, Student Newspaper, Student Yearbook, Student Organizations, Campus Ministry, and the Honor Committee are all located in the Union.

The Union also incorporates recreational facilities such as an arts and crafts center, game, TV, music, and card rooms and lounge areas.

On the second floor of the Student Union, banking, bookstore, and drycleaning services are available; the United Virginia Bank (938-2900), Compass Drycleaning (323-1115), and the Bookstore (323-2169) operate for the convenience of students, faculty, and staff.

Food services, supplied by Ogden Food, are available on both campuses including the new rathskeller facilities in the Student Union. For the convenience of the campus community, vending machines are also located in various buildings on each campus. For information concerning catering service, contact the Food Service Manager of the Main Campus (323-1120).

The snack bar, cafeteria, and rathskeller are on the Union lower level, with patios on both the north and south sides of the building. The Union also has a variety of meeting facilities which can be reserved through the Coordinator of the Union (323-2164).

On the North Campus, a study lounge is located in Room 107 and a Dispensary and Student Affairs office in Room 105.

Students wishing to schedule meeting rooms or conferences throughout the University must do so in Room 310 of the Student Union (323-2164). Most facilities may be reserved free of charge to University groups with some exceptions for support costs for special events. Union staff are available to discuss the many services (including audio visual general equipment, furniture needs, parking considerations, food services and banking) available in the Student Union.

Health Services

The Student Health Service, with offices on both Main and North Campuses, offers treatment of minor illness, administers first aid, dispenses non-prescription medications, provides referral services to outside health resources, offers hygienic information and counseling, and assists in administration of a program of health and accident insurance for students.

During the academic year, programs are offered with emphasis on the preventative aspects of health. Last year's programs stressed areas such as blood pressure, Pap testing, and weight control as related to behavior modification.

Pregnancy testing and throat cultures are performed for a minimal fee. Abortion counseling and referrals are also offered.

Staffing consists of a Nurse/Coordinator, two part-time nurses, and a consulting physician.

Main Campus: Student Union, Room 355, 8:30 a.m.–9:00 p.m. Weekdays 323-2584.
North Campus: Room 105, 9:00 a.m.–1:00 p.m. Weekdays 323-2589.

Health Insurance

All George Mason University students are eligible, on a voluntary basis, to enroll in the University-endorsed Accident & Sickness Insurance Plan, underwritten by the North American Assurance Society of Virginia, Inc. The policy includes provisions for major medical coverage, outpatient laboratory fees, and x-ray coverage, as well as the usual provisions for hospital room and board, surgical expenses, etc. At minimal cost to the student, this policy provides for coverage of the person insured twelve months per year, 24 hours a day, worldwide, at the University or elsewhere. Health insurance brochures, enrollment applications, and
claim forms may be obtained at both North Campus and Main Campus health offices.

Housing

On Campus. The University offers on-campus housing for 498 students. The residential complex is composed of nine three-story structures containing 122 apartments. The 122 apartments are divided into one-, two-, or three-bedroom units which accommodate two, four, or six students respectively. Each apartment unit has its own entrance from the outside, and includes a kitchenette, bathroom, and carpeted living room in addition to the bedroom(s). Utilities, with the exception of telephone, are included in the rent. Complete information concerning the University’s on-campus housing is available from the Coordinator of Student Housing, George Mason University, 4400 University Drive, Fairfax, Virginia 22030 (703-323-2354/55).

Off Campus. For assistance in obtaining off-campus housing, students should contact the office of the Coordinator of Student Housing (703-323-2354/55).

Counseling Center

George Mason University’s Counseling Center provides specialized services for student development. These include counseling for personal adjustment, social skills and communication enhancement, marriage and couples counseling, reading and study skills assistance and educational and career counseling. Interest, ability and personality testing is also available. The Counseling Center offers a variety of groups and workshops for personal development. You may pick up a brochure at the Center which gives a complete listing of all programs for the semester. Minority students may contact the Center’s counselor for minority students. The Center offers its services on a confidential basis and no charge to students taking one or more classes at George Mason University. The Counseling Center is staffed by certified, professional counselors. To make an appointment call 323-2165 or stop by our office in the Student Union Building, Room 364. Hours are from 8:30 a.m. to 5:00 p.m. Monday through Friday and Tuesday evenings until 8:00 p.m.

Academic Testing

The Office of the Assistant to the Vice President for Academic Affairs serves as the testing center where students may take the College Level Examination tests (CLEP), and obtain applications for the Graduate Record Examination (GRE), Law School Admission Test (LSAT), Graduate Management Admission Test (GMAT), Medical College Admission Test (MCAT), Dental Admission Test (DAT), Veterinary Aptitude Test (VAT), and the Miller Analogies Test (MAT). This office also conducts Foreign Language Placement tests.

Career Planning and Placement

The Office of Career Planning and Placement, located in Room 365 Student Union Building provides assistance to graduate students in obtaining full-time and part-time employment. The office is open 8:30 to 5:00, Monday through Friday, and one evening per week. All full-time and part-time students as well as alumni are encouraged to utilize these services in their job hunting endeavors. Major services include:

1. Career Counseling: Short-term individual or group career counseling is available in identifying career options, employer research, resume writing and interviewing skills.

2. Job Referral: Graduate students and alumni can register to receive appropriate full-time job notices. Part-time and Summer job boards are also maintained outside Room 365, Student Union Building and Room 200 North Campus.

3. On Campus Interview Program: Throughout the year employers conduct interviews on campus for career positions in business, government and education.

4. Permanent Credential File: Files containing references are made available to prospective employers and graduate schools at the request of the student. Graduate students seeking employment in Education and Social Service fields are strongly encouraged to establish this file.

5. Career Reference Library: A specialized self-help library containing job hunting directories and guides, government employment information, graduate and professional school catalogs, and occupational information.

Veterans Affairs

The University maintains an Office of Veterans Affairs to assist veterans, service personnel, dependents, and survivors in obtaining authorized educational benefits. The office also provides support to veterans in adjusting to university life. The office is located in Room 352, Student Union Building. Office hours are 8:30 a.m. to 5:00 p.m. Monday through Friday, and 5:00 p.m. to 8:00 p.m. Tuesday evening.

To assist GMU veterans, the University has a Veterans Coordinator and a Veterans Administration Representative available on campus.

Veterans should contact the office as soon as they are sure of the number of hours to be carried in a particular semester or summer session.

Veterans Educational Benefits

In order to receive monthly Veterans Educational Benefits while attending the University, contact must be made with the Office of Veterans Affairs where the following will apply:

1. Veterans who have never received benefits must originally apply on Form 22-1990. This application should be turned in to the Veterans Office on campus with a copy of the student’s DD-214. Active duty personnel must use Form 22-1990a.

2. Students who have received benefits from another school, or who are changing either their type of program or course objective, must fill out Form 22-1995, “Request for Change of Program or Place of Training.”

3. It is important to remember that students must request the Veterans Counselor to send an enrollment certificate to the VA each school year (each semester if the student is under 1/2 time or on active duty). Students attending a summer session who want to receive benefits must send an additional enrollment certificate.

4. It is each student’s responsibility to notify the Veterans Office on campus of any change in status. Such changes may include:

   a. Adding or dropping courses
   b. Change in marital status
   c. Addition of a child or additional children
   d. Change of address (immediately)
   e. Withdrawal from school—notify immediately

The forms to effect these changes are available at the Veterans Office on campus.

5. Students with a complaint, such as a late check, should contact the Veterans Representative or the Veterans Counselor on campus. Veterans should keep their VA file number handy to aid in taking care of problems.

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6. VA payments are made to graduate students on the following basis:

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Note: Courses must be 500 level or above to be considered graduate level. Active duty servicemen and those taking fewer than 4 graduate hours are paid either tuition and fees or the rate set for the training time, whichever is less. Books and supplies are not included.

Veterans Educational Loan

The amount of a VA loan which can be approved is determined by the amount the student's educational expenses exceed his or her available resources. The VA has increased the education loan amount to $311 multiplied by the number of months of remaining entitlement to a maximum of $2,500 per year. Further information can be obtained at the Veterans Affairs Office.

Tutorial Services

The VA will pay $69 per month, not to exceed $828, for needed tutorial services.

Athletic Activities

The intercollegiate program at George Mason University offers competition between GMU and colleges in Virginia and other states on the East Coast. Men's intercollegiate competition includes cross-country, track and field, soccer, basketball, wrestling, volleyball, fencing, baseball, golf and tennis.

The GMU men's program is a member of two national athletic organizations—the National Collegiate Athletic Association (NCAA) and the National Association of Intercollegiate Athletics (NAIA). The Patriots also participate in the Mason-Dixon Intercollegiate Athletic Conference (MDIAC) with additional outside competition furnished by American University, the University of Virginia, George Washington University, Howard University, Georgetown University and Catholic University.

The women's intercollegiate athletic program is a rapidly growing part of the total athletic program. Competitive sports for women are conducted in tennis, volleyball, basketball, cross-country and track while coeducational competition is provided in swimming. Future plans tentatively include field hockey, softball, swimming, crew and gymnastics.

GMU is affiliated with the Association of Intercollegiate Athletics for Women and the Virginia Federation of Intercollegiate Sports for Women and participates in the small college conferences against schools in Virginia, Maryland and the District of Columbia.

The 1977 women's volleyball team was small college champion in Virginia and represented the state in the Southern Region II championship in Harrisonburg, Va.

The men's program once again finished second in the Menton Trophy competition in the Mason-Dixon Conference for overall athletic excellence during 1976-77. The baseball, tennis, cross-country, golf and volleyball teams participated in national and regional post-season tournaments to help establish another fine record of athletic achievement.

A growing intramural program enables men and women to participate in a variety of athletic activities of their choice.

Campus Ministry

The Campus Ministry Association is an ecumenical group of chaplains of Judaean-Christian orientation concerned with being of service to the George Mason University community. Chaplains are available for counseling for religious, educational, and social activities, for community service and social action, including working for the alleviation of hungry and starving peoples world-wide. The organization is sponsored by Catholic, Jewish, and Protestant efforts.

Chaplains are on campus daily for discussion and assistance of any kind for all members of the University community. The Campus Ministry office is located in the Student Union, Main Floor, Room 229 (323-2160).

Reserving University Facilities

Individuals or groups of students and organizations wishing to utilize University facilities for non-academic events must complete a reservation form in Room 310 of the Student Union prior to the assignment of space. Approval is then given subject to the procedures outlined in the George Mason University Administrative Procedures Manual, which states that responsibility for determining availability of space is delegated to the following offices:

1. Student Union facilities and cafeterias (Main and North Campus)—Coordinator of the Student Union;
2. Lecture Hall, North Campus Auditorium, and classrooms—University Registrar;
3. Physical education/athletic facilities—Coordinator of Athletic Facilities;
4. Outdoor spaces other than physical education/athletic facilities—Director of Facilities Planning.

All reservations should be submitted at least two weeks prior to the date of the event. The initial contact for scheduling all events and activities, whether University sponsored or not, is through the Scheduling Clerk located in the Student Union Building, Room 310. For additional information regarding the scheduling of facilities, call 323-2164.

Student Regulations

Conduct. Academic institutions exist for the transmission of knowledge, the development of students, and the general well-being of society. Free inquiry and free expression are indispensable to the attainment of these goals. As members of the academic community, students should be encouraged to develop the capacity for critical judgement and to engage in a sustained and independent search for truth.

Freedom to teach and freedom to learn are inseparable factors of academic freedom. The freedom to learn depends upon appropriate opportunities and conditions in the classroom, on campus, and in the larger community. Students should exercise their freedom with responsibility.

The responsibility to secure and to respect general conditions conducive to the freedom to learn is shared by all members of the academic community. The University has a duty to develop policies and procedures which provide and safeguard this freedom.

The George Mason University believes that the procedures, rights, and safeguards outlined below are indispensable to achieving the goals desired—freedom to teach, to learn, and to search for truth.

The University respects and is determined to protect the individual dignity, integrity, and reputation of its students. At the same time it requires that students comply with those conventions and regulations of University life which it feels are necessary to maintain order, to protect individuals and property, and to fulfill its purposes and responsibilities as a University. To this end the University realizes that the prevailing rule in matters of student discipline must continue to be that of common sense, and excessive legalism can only disserve the University and its community of students, faculty, and staff.

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 office of the Associate Dean for Student Life is administratively responsible for maintaining a system of non-academic discipline. Questions regarding student conduct should be directed to this office.

Honor System and Honor Code. 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 more than a century of continuous use, the honor 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.

At the beginning of each semester each faculty member has the responsibility to delineate to all his classes his own, as well as departmental, policy pertaining to the Honor Code. In addition, each department has a designated liaison to the Honor Committee who is available to answer most questions which may arise. A statement of willingness to conform to and uphold the Honor System is included in the application form for admission to the University.

The Honor Committee may be reached at 323-2195 during the posted hours or at the office, Room 306, Student Union.

The Honor Code

In order to promote a stronger sense of mutual responsibility, respect, trust, and fairness among all of the members of the George Mason University, and with the desire for greater academic and personal achievement, we, the members of the George Mason University, have set forth the following code of honor.

1. The Honor Committee
Duties of the Honor Committee:
The Honor Committee is to be a group of students elected from the student body whose primary and indispensable duty shall be to instill the concepts and spirit of the Honor Code within the student body. The secondary function of this group shall be to sit as a hearing committee on all alleged violations of the code.

2. Extent of the Honor Code
The Honor Code of the George Mason University shall deal specifically with:

- Cheating and attempted cheating
- Plagiarism
- Lying
- Stealing

Cheating encompasses the following:
The willful giving or receiving of an unauthorized, unfair, dishonest, or unscrupulous advantage in academic work over other students.

The above may be accomplished by any means whatsoever, including but not limited to, the following: fraud, duress, deception, theft, trick,
Plagiarism encompasses the following:
Presenting, as one's own the words, the work, or the opinions of someone else without proper acknowledgment.
The borrowing of the sequence of ideas, the arrangement of material, or the pattern of thought of someone else without proper acknowledgment.

Lying encompasses the following:
The willful and knowledgable telling of an untruth or falsehood as well as any form of deceit, attempted deception, or fraud in an oral or written statement relating to academic work.

This includes but is not limited to:
(a) Lying to administration and faculty members.
(b) Falsifying any University document by mutilation, addition, or deletion.
(c) Lying to Honor Committee members and councils during investigations and hearing.

Stealing encompasses the following:
The taking or appropriating without the right or permission to do so, and with the intent to keep or to make use of wrongfully, property belonging to any member of the George Mason University community or any property located on the University campus.

3. Responsibility of the Faculty
In order to alleviate misunderstanding, each professor is required to delineate at the beginning of each semester what constitutes a violation of the Honor Code in his class. This should include an explanation of:
(a) the extent of group participation that is permissible in preparing term papers, laboratory exhibits or notebooks, reports of any kind, tests, quizzes, examinations, homework, or any other work.
(b) the extent to which the use of study aids, memoranda, books, data or other information is authorized during recitations, tests, quizzes, examinations, reports of any kind, laboratory sessions, or any other work, and
(c) the nature of plagiarism.

Each professor is required to send the Honor Committee a written copy of his policy, which will be kept on file.

Any faculty member who witnesses an Honor Code violation should proceed as outlined under Procedures for Reporting a Violation.

4. Responsibility of the Students
Students should request a delineation of policy from each professor if none is given at the beginning of each semester. Students should also request an explanation of any part of the delineation that they do not understand. It is the responsibility of the student to understand his professor’s policies with regard to the Honor Code. It is also the responsibility of the student to understand the provisions of the Honor Code.

All students in the University have the duty as participating members of this community to report to a member of the Honor Committee any violations of the Honor Code within the prescribed time as outlined under Procedures for Reporting a Violation. This duty is of importance not only because it enforces the Honor Code, but also because it gives each student the opportunity to express his respect for personal integrity and an honest academic community.

5. Procedure for Reporting a Violation
Any student or faculty member witnessing a violation of the Honor Code shall report, wherever and whenever possible, one or more corroborating witnesses to the overt act. The accuser(s) (student or faculty) will inform the suspected party and the Honor Committee of the accusation in writing within fourteen (14) days. They shall inform the suspected party that he has four (4) days to contact a member of the Honor Committee and request a hearing or to withdraw from school. Any member of the George Mason University Academic Community that has knowledge of but does not report an Honor Code Violation may be accused of lying under the Honor Code.

6. Counsel for the Accused and Accuser
Counsel for the accused and accuser may be provided by any member of the George Mason University academic community, including members of the Honor Committee.

7. Appearance of Witnesses
The Honor Committee may request any member of the University community to appear as a witness before the Committee at the time of the hearing. All requests shall be issued by the Chairman of the Honor Committee.

8. Verdict
In order to find a student guilty of an honor violation, all of the voting members must vote for a verdict of “guilty.” If the vote is not unanimous, the defendants shall be acquitted.

A student may not be tried more than once for the same offense except when an appeal is granted.

9. Penalty
If the accused is found guilty of an honor violation, the Honor Committee shall determine the nature of the penalty by majority vote.

The Honor Committee is not restricted to any one kind of penalty but will determine a penalty commensurate with the seriousness of the offense. Typical of the range of penalties which may be given are:
Oral Reprimand:
An oral statement to the student by the Chairman of the Honor Committee. No entry is made on the student’s scholastic record.

Written Reprimand:
A written censure which is placed in the confidential files of the Honor Committee, but is not made part of the student’s scholastic record.

Non-Academic Probation:
Exclusion from holding an elected or appointed office in any student activity or organization. A student on non-academic probation will be ineligible to participate in any athletic or other activity representing the University and will be ineligible to serve as a working staff member of any student organization. This action is noted in the Dean of Students’ file but is not made a part of his scholastic record.

Failing Grade:
A recommendation in writing to the instructor of a grade of “F” for the work involved or for the entire course is made. The student’s permanent record will reflect the academic evaluation made by the instructor.

Suspension from the University for One or More Semesters:
A student’s scholastic record would read: “Non-academic suspension from ( ) to ( ).”

This penalty will be given only in extraordinary circumstances, such as for repeated offenses.

10. Appeal
A written request for an appeal, detailing new evidence, must be presented to the Chairman of the Honor Committee within 7 days after the date on which the verdict was rendered. (The Appeal Board will consist of at least three voting members.) If a new hearing is granted, no voting member from the original hearing may vote in the second or subsequent hearings of the same case.

11. Keeping of Records
In the event that the accused is found “not guilty,” the Chairman of the Honor Committee will destroy all records of the hearing.

If the accused is found guilty, the records of the hearing shall be kept in the file of the Honor Committee. These records shall include a full transcript of the hearing and all evidence presented at the hearing; if this evidence belongs to any person other than the defendant, the original shall be returned to the owner and a copy shall be kept with the records of the Honor Committee.

12. Composition of the Committee
The Honor Committee shall consist of the following members: two graduate students, five seniors, four juniors, three sophomores, three freshmen, and the faculty adviser(s), although the latter shall be a non-voting member. One or more clerks will be appointed by the Committee from the student body who will serve as aids to the Chairman.

The Chairman of the Committee will be elected by majority vote of the Committee members. For a particular hearing, five members of the Honor Committee will be designated as voting members.

The Faculty Adviser, as a non-voting member of the Committee, should sit with and advise the Committee at all hearings. The Faculty Adviser shall be chosen by the Honor Committee.

Previous Honor Committee members may serve during the summer term.

13. Eligibility of Members
Any student who maintains a 2.0 grade-point average and is in good standing with the University shall be eligible for the Honor Committee. A Committee member must maintain a 2.0 average to continue in office.

14. Election of the Honor Committee
In the spring semester, five juniors, four sophomores, three freshmen and two graduate students shall be elected. The term of office shall begin upon election and run until the following spring elections.

In the fall semester an election shall be held to fill any vacancies that have occurred and to elect three freshmen to serve until the following spring elections.

If a vacancy occurs between elections, it may be filled by a majority vote of the remaining members.

15. The Challenging of and Voluntary Withdrawal of a Member of the Committee from Participation in a Particular Hearing
An accused who challenges the right of any member of the Honor Committee to sit in judgment on him must present cause to the Chairman of the Hearing.

The Hearing Committee shall then decide the validity of the challenge with the challenged member abstaining from voting. A simple majority shall decide the validity of any challenge. A successfully challenged Committee member shall not be present during the hearing.

A member of the Honor Committee shall withdraw from a specific hearing if he feels that he is prejudiced as to the facts in the case.

16. Provision for Amendments
Upon petition of 20% of the student body, a committee shall be appointed by the Student Government to consider amendments to, or revisions of the Honor Code, said amendments and/or revisions to be then voted on by the student body as a whole. A two-thirds majority of the votes cast shall be necessary for acceptance of any amendment or revision.

It is further provided that every third year the Student Government shall appoint a committee to review the Honor Code in an effort to keep it currently applicable. Any changes deemed necessary shall be implemented in the manner described in the above paragraph.

The Honor Committee may also propose amendments to be voted on by the student body as described in paragraph one of this section.

Approved amendments will take effect immediately except that new provisions will not be applied to cases initiated prior to amendment.

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.

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:
1. 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;
2. the student has a valid state driver’s license; and
3. 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.

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

Pets. No pets will be permitted in University buildings at any time. Additionally, pets which are on campus grounds will be on a leash and under supervision at all times.
Graduate Catalog 1978-1979
George Mason University

The Graduate School

History
Graduate study was initiated at George Mason in 1970, when the College was still a part of the University of Virginia, with the introduction of master's programs in Biology, Mathematics, and Elementary Education. In 1971 additional master's programs were introduced in Secondary Education, School Administration, School Supervision, and History. In 1972, shortly after George Mason University became an independent state institution to serve the needs of Northern Virginia, the Graduate School came into formal existence and the first Dean of the Graduate School was appointed. Graduate work was extended at that time to include new master's programs in Business Administration, Guidance and Counseling, and Psychology. Master's programs in Economics, English, and Reading were added in 1973. These have since been joined by master's programs in Spanish, Special Education, and Public Administration. Other new programs are now being planned.

Organization
The Graduate Faculty, operating under Bylaws adopted in 1975, is the body in which the governance of the academic policies and procedures of the Graduate School is vested. The Graduate Faculty approves all graduate programs, authorizes all graduate degrees conferred by the University, and sets minimum standards for admission to and graduation from graduate programs.

The Graduate Council is the executive body of the Graduate Faculty. It consists of one graduate faculty member from each department offering graduate work, three at-large members elected from the graduate faculty, as well as the Dean and Assistant Dean of the Graduate School. It meets approximately nine times a year to conduct its regular business. Special meetings may also be called as the need arises.

The Graduate Council has four standing committees: the Academic Policies and Procedures Committee, the Curricula Committee, the Scholarship and Student Appeals Committee, and the Publications Committee.

Fields of Study
Graduate education is not simply an extension of undergradu­ate education. Its goal is to provide the opportunity for each student to participate in an intensive and individualized program of study under the direction of a strong and current faculty. To promote this goal, the Graduate School encourages research, inquiry, and scholarship at the highest levels from both students and faculty.

The Graduate School of George Mason University offers a wide variety of degree programs and courses at the master's level. At present, there are no programs or course offerings at the doctoral level. Nearly all graduate courses are offered in late afternoon and early evening hours.

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, Public Administration, Reading, School Administration and Supervision, Secondary Education, Spanish, and Special Education.

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. Graduate (500-level) courses, but no graduate programs are offered in: American Studies, Astronomy, Chemistry, French, Geography, Geology, Health, Nursing, Physical Education, Physics, and Sociology. Undergraduate courses approved for graduate credit are also offered by a number of departments.

In the fall of 1977, there were over 1200 admitted graduate students enrolled at George Mason University. There were also close to 1000 post-baccalaureate students taking courses through Extended Studies enrollment.

There were 307 master's degrees conferred in the 1977 calendar year.

Special Facilities for Graduate Study
The University library system provides a good and readily accessible collection of over 160,000 volumes, over 200,000 microform units, and approximately 2300 current periodical titles.

The Research Center for the Federal Theatre Project, housed at George Mason, contains the major collection of playscripts, radioscripts, set and costume designs, and other creative materials produced by the Federal Theatre of the 1930's. Based on more than 40,000 items placed on deposit at George Mason by the Library of Congress in 1974, the collection also includes gifts from private individuals and a growing oral history library. The Center is housed in the Fenwick Library and administered in conjunction with the Department of English.

The Educational Child/Youth Study Center and Guidance Counseling Laboratory serves as an on-site training facility for students in several education programs. These centers provide practical experience for graduate students in the reading program by offering diagnostic and tutorial services to primary and secondary pupils in public and private schools in the Northern Virginia Area. Graduate students in Special Education have the opportunity to observe and interact with children and youth who have a learning disability, emotional disturbance, or mental retardation.

Computer facilities are available to the faculty and students for instructional and research purposes. Beginning with the Fall 1978 term, a Hewlett Packard 3000 Series II Model 6 computer with 512 kb memory is operational on campus for academic work. In addition, there is a Hewlett Packard 2000 access computer to support BASIC interactive time sharing and remote batch and interaction to the Control Data Cyber 172 at the University of Virginia and the IBM 370/158 at the College of William and Mary. The University Computer Center is located in Thompson Hall, Room 2. Teletype terminals, CRT's, and keypunch machines are in Room 21. The Director of Academic Computing Services supervises consultants located in Room 22 to assist users with programming and job control language problems. On the North Campus, time sharing terminals are located in the Computer Laboratory, Rooms 135 and 136. Various software package programs are available on several of the supporting computer systems such as SPSS, BIOMED, and ESP. Various utilities are available for sort, merge, copy and edit. During the Fall and Spring semes-
ters, the University Computer Center is open Monday through Thursday from 9:00 a.m. to 9:00 p.m., Friday from 9:00 a.m. to 6:00 p.m., Saturday from 10:00 a.m. to 4:00 p.m. and Sunday from 1:00 p.m. to 6:00 p.m.

The Psychological Clinic provides graduate students in Psychology practical experience in the assessment of emotional, behavioral and learning disorders in children and adolescents, and emotional and vocational problems of adults. In a typical psychological testing case, the interviewing and testing is done by a graduate student under the supervision of a staff clinical or counseling psychologist.

In addition to these campus facilities, many federal laboratories, such as the National Institutes of Health, the National Bureau of Standards, the Naval Research Laboratories, the NASA-Goddard Space Flight Center, and the Smithsonian Institution, enhance the educational environment for graduate students.

The University is fortunate to be located in one of the richest concentrations of library facilities in the nation which supplement its own holdings. These include the Library of Congress, the Folger Shakespeare Library, Dumbarton Oaks, the National Archives, the Smithsonian Institution, the World Bank, the National Library of Medicine, and the National Agricultural Library. There are also the libraries of the Federal Departments of Labor; Commerce; Interior; Health, Education and Welfare; Housing and Urban Development; and Transportation and several university libraries and specialized collections. All of these are easily accessible by major highways and public transportation.
Admissions Policies and Procedures

Admission Categories
The Graduate School provides admission categories of degree and provisional for those applicants with degree objectives. A graduate student registered in another graduate school may be given permission to register on a temporary basis as a guest matriculant. For applicants with no immediate degree objectives, the non-degree category of admission is available.

Admission With a Degree Objective
Applicants who wish to obtain a graduate degree may be offered admission in either degree or provisional status depending upon their ability to meet the admission requirements for degree-seeking applicants. These include general requirements for admission to the Graduate School and specific requirements of the individual departments in which the graduate program is offered.

The general admission requirements for degree status are:
1. an earned baccalaureate degree from an accredited institution of higher education;
2. a 2.75 grade-point average (on a 4.0 scale) or better in the last two years of undergraduate study;
3. appropriate undergraduate preparation for the chosen field of graduate study;
4. submission of official transcripts and all other documents required by the Graduate School.

Departmental entrance requirements for a degree student are listed in this catalog under the relevant discipline. Some departments require letters of recommendation, scores on a standardized national examination, or teacher certification. The instructions accompanying the application form provide detailed information concerning departmental requirements.

Provisional admission may be offered to a degree-seeking applicant in appropriate instances, even though all criteria for degree status have not been met, if there is sufficient evidence to suggest a capacity to pursue graduate work. Students on provisional status must have as their initial objective the removal of any deficiencies and their advancement to degree status. After completing not less than 6 nor more than 12 hours of graduate work with a “B” average or higher and meeting any other academic requirements, the student may request degree status. The provisional student’s admission will be terminated if, upon completion of 12 hours, a “B” average has not been achieved. Graduate credits earned as a provisional student may be applied toward a graduate degree with the approval of the department concerned and the Graduate Dean. Graduate credit will not be granted for courses taken to remove deficiencies.

A graduate student admitted to another graduate school may be given permission to register on a temporary basis as a guest matriculant. This admission as a visiting student is usually for one semester. A guest matriculant must have been officially admitted as a graduate student at another recognized university and certified by his or her dean as being in good standing. An application form for requesting guest matriculant status may be obtained from the Graduate School Admissions Office.

Admission With No Degree Objective
Applicants who are not interested in pursuing a degree program but wish only to take one or more graduate courses should request non-degree status in the Graduate School. Although the primary mission of the Graduate School is to conduct programs of instruction leading to graduate degrees, qualified students who have no immediate degree objectives are welcome to the extent that available resources allow. An applicant requesting non-degree status must submit a transcript showing that a baccalaureate degree has been earned at an accredited college or university. Non-degree students are not eligible to hold appointments as graduate assistants. All other services, including parking and library privileges, are the same as those accorded to other graduate students.

Although admission to non-degree status is not intended to be used as means to qualify for subsequent admission to a degree program, a non-degree student who later wishes to pursue a graduate degree may supply all admission credentials to the Graduate School Admissions Office and request to be considered for degree status. A student cannot be assured that all courses taken as a non-degree student will be credited toward a degree. With approval, a student may apply to a master’s degree a maximum of 12 hours of graduate credit earned prior to acceptance in degree status. See Graduate School Degree Requirements.

Submission of Application
Initial correspondence concerning application for admission to the Graduate School should be addressed to the Graduate School Admissions Office, 4400 University Drive, Fairfax, Virginia 22030. Telephone (703) 323-2104. Applicants seeking admission as degree students to the Graduate School must submit the following:
1. Application form.
2. Transcripts (two official copies) from each institution attended, including George Mason University (Undergraduate or Extended Studies enrollment).
3. $10.00 application fee (non-refundable).
4. Virginia Domicile Classification Form.
5. Records of examinations (GRE, GMAT, etc.) as required by certain departments (see application instructions).
6. Letters of recommendation as required by certain departments (see Entrance Requirements under the appropriate program).
7. Supplementary Application Form for Foreign Students (non-U.S. citizens only).
8. Other forms and documents as may be required by individual departments (see application instructions).

It is the responsibility of each applicant to make sure that all documents are received for inclusion in his or her admission file. The University cannot assume any obligation to inform the applicant about missing documents or credentials. All documents and credentials submitted in support of applications for admission become the property of George Mason University, and will not be returned or duplicated for any purpose.
An applicant who, after filing an application, no longer wishes to have that application considered, should notify in writing the Graduate School Admissions Office. An applicant for admission to the Graduate School should not normally be seeking enrollment through the Office of Extended Studies.

Application Deadlines

Applications and all supporting documents for the admission category sought must be received by the Graduate School Admissions Office no later than June 15 for the fall semester; November 15 for the spring semester; March 15 for the summer session.

Submission of Transcripts

Two official copies of transcripts from each college or university attended must be received in support of an application for admission as a degree student. Applicants should instruct their institution(s) to send their transcripts directly to the Graduate School Admissions Office and not to departments. George Mason students and graduates (including Extended Studies enrollees) who apply for admission to the Graduate School should request the University Registrar to send transcripts directly to the Graduate School Admissions Office.

After admission, graduate students at George Mason University who are given permission to take courses elsewhere for possible transfer credit must have transcripts of this work, upon its completion, sent to the Graduate School Admissions Office.

Graduate Admission Examinations (GRE and GMAT)

Although a number of graduate programs do not require the Graduate Record Examination (GRE), almost all will use such test scores as an additional measurement of an applicant’s qualifications. The GRE may be taken in either or both of two forms: 1) the Aptitude Test and 2) the Advanced Test. Some departments require scores for both the Aptitude and the Advanced Tests. During 1978-79 the Graduate Record Examination will be administered locally and nationally on the following dates:

- June 10, 1978
- October 21, 1978
- December 9, 1978
- *January 13, 1979

*not administered at George Mason University on that date

**Aptitude Test only

The Graduate Management Admission Test (GMAT), formerly known as the ATGGSB, is required of all applicants seeking a degree in Business Administration. During 1978-79 the GMAT will be administered locally and nationally on the following dates:

- July 8, 1978
- October 28, 1978
- January 27, 1979
- March 17, 1979
- July 7, 1979

The application deadline is generally one month prior to the test date. It is usually possible to “walk-in” to take the examination. However, walk-in registrants will be admitted on a “first-come” basis. They must bring registration forms and checks or money orders to pay the fees in full. Cash will not be accepted.

Admission of International Students

George Mason University currently limits its acceptance of international students to those who are already in the United States. There are limited residential facilities on the campus, and no funds available from which to award fellowships to non-immigrant students. Foreign students who intend to study at George Mason University on student visas are expected to meet all requirements for admission as degree students and are required to be full-time students. They should also, when applying for admission, supply a current transcript from the institution from which they are transferring.

Foreign training, as shown by official documents, may be accepted as equivalent to the bachelor’s degree, but each case must be approved by the appropriate department chairman and the Graduate Dean. In addition to satisfying academic requirements, as stated above, applicants whose native language is not English must demonstrate their proficiency in the English language by taking the “Test of English as Foreign Language” (TOEFL). Results of this test should be submitted as part of the application for admission. Applications for admission will not be processed until the Graduate School Admissions Office has received the TOEFL results. Students who have received a bachelor’s degree or advanced degrees from an accredited university or college in the United States, Australia, Canada, Great Britain, or New Zealand are automatically exempt from this requirement.

The TOEFL is administered four times each year in the United States and many foreign countries. Further information may be obtained from the Office of the Assistant to the Vice President for Academic Affairs or from Educational Testing Service, Box 955, Princeton, New Jersey 08540.

Since the admission of foreign students must conform to the regulations of the United States Immigration and Naturalization Service, it is necessary for such students to complete carefully the “Supplementary Application Form for Foreign Students,” obtainable from the Graduate School Admissions Office, and submit it with the application for admission.

Offer of Admission

A written offer of admission is made by the Dean of the Graduate School to an applicant who meets all admission requirements and has been recommended for admission by the appropriate department. The offer specifies the effective date of admission (which will normally coincide with the semester requested in the application), the category of admission being offered, and the name of the faculty adviser assigned to the applicant.

An individual whose offer of admission has lapsed must submit a new application and fee, if he or she wishes to be reconsidered for admission at a later date.

Reactivation of Deferred Applications

A student who has been notified that action on his or her application has been deferred, pending the completion of prerequisite courses for graduate study in a chosen field, is encouraged to notify in writing the Graduate School Admissions Office as soon as the prerequisites have been met. It is the responsibility of the applicant to furnish transcripts confirming that the prerequisite courses have been satisfactorily completed. No admission decision can be made until these grades are received.
Records Maintenance and Disposal

All admission documents, including academic records sent from other institutions, become part of the official University file and can neither be returned nor duplicated for any purpose. A student should maintain copies of his or her official credentials for other personal requirements.

The admission credentials of applicants who (1) do not register for courses within the time period for which the offer of admission is valid, or (2) have been denied admission, or (3) do not respond to requests for additional information, or (4) fail to submit complete applications with respect to the receipt of all transcripts or test results are retained for 24 months only and subsequently destroyed.
Readmission
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 readmission. Readmission forms are available through the Graduate School Admissions Office. Since the department chairman and the Dean of the Graduate School must approve all readmissions, students are encouraged to complete the forms and return them to the Graduate School Admissions Office no later than one month prior to the anticipated date of registration. A $10 non-refundable fee must accompany the readmission form. If such readmission is approved, the student is subject to the academic regulations and requirements in effect at the time of registration after readmission.

Change in Field of Study
Change of Program from One Department to Another
Admission to graduate study is contingent upon approval by the department in which the student proposes to concentrate. Therefore, a student is not free to change major departments at will. If a student wishes to change from one department to another in a new field of study, he or she must submit a new application and fee for admission. Letters of recommendation, GRE or GMAT scores, and other documents, if required for admission by the prospective department, must be submitted to the Graduate School Admissions Office. Previous acceptance by one department does not guarantee acceptance by another department. The new (prospective) department will review the student’s application for a change of program along with new applications for the semester in question.

A student may be admitted to only one graduate program at any one time. Application for and acceptance of an offer of admission in a second graduate program automatically terminates the student’s admission to the first program.

Change of Program within the Same Department
A student desiring to change from one graduate program to another in the same department should submit a Student Request Form to the chairman of the department. After reviewing the request and documentation, the department chairman will submit his recommendation to the Dean of the Graduate School for approval.

Termination of Admission
A student may be admitted to only one graduate program at any one time. Application for and acceptance of an offer of admission in a second graduate program automatically terminates the student’s admission to the first program. The student’s admission also terminates when time limits have been exceeded or when other conditions for the continuation of admission have not been met.

Extended Studies Enrollment
Administered by the Office of Extended Studies, this procedure allows persons who may not meet regular graduate admissions criteria, or for whom these criteria are not appropriate, to request enrollment in courses for which they are qualified without seeking admission to the University. Credits earned by students as Extended Studies enrollees are recorded on regular transcripts.

If a student who has enrolled in courses using this procedure wishes to apply for admission, the regular graduate admission procedures should be followed. Extended Studies enrollees may apply for regular admission at any time.

A maximum of twelve hours of graduate credit earned through Extended Studies may be applied toward a master’s degree program with approval of the Graduate Dean if the student applies for admission to the Graduate School and is accepted in a degree program. It shall be the responsibility of the student, after admission to the Graduate School and upon initial registration as a degree student, to initiate such a request on a Student Request Form. If the student has transferable credit from another institution, the amount of applicable credit earned through Extended Studies will be reduced accordingly. Grades for the graduate courses taken through Extended Studies enrollment, if approved toward a master’s degree, will be included in the student’s grade-point average.

Professional counseling is available on a walk-in basis in the Office of Extended Studies. Prospective enrollees must bring records of all previous academic work with them for counseling purposes. Extended Studies students are enrolled on a first-come, first-serve basis.

All University tuition, fees, and regulations apply to Extended Studies enrollees. To qualify for this type of enrollment, a student must be approved for each course enrollment by a professional counselor in the Office of Extended Studies who will counsel and advise the student about prerequisites and course requirements. Many academic policies are administered by an admitted student’s academic dean. The Director of Extended Studies administers such policies for Extended Studies enrollees. Such enrollment is subject to semester by semester or yearly review and to continuing satisfactory academic standing as defined by the Graduate School.

More information on Extended Studies enrollment may be obtained from the Office of Extended Studies. Telephone: 323-2436.

Senior Citizen 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 60 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 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
The Summer Session at George Mason University continues each year to increase educational opportunities for students in Northern Virginia. The offering of summer courses is controlled, however, by a funding pattern more restrictive than that for the regular academic semester.

Applicants wishing to begin graduate work in summer must complete a Graduate School application before submitting a summer session enrollment form. There is a $10.00 non-refundable charge for each form.

Students who wish to complete graduation requirements for summer commencement should understand that the University does not necessarily offer all required courses in any particular summer session.

Summer Session consists of several terms, ranging in length from five to eight weeks, during the period May 30-August 5. Classes are offered during both day and evening hours. For details, consult the Summer Session Catalog, which is available each year about March 1. Inquiries about the Summer Session may be directed to the Dean of the Summer Session, (703) 323-2300, or the Summer Session Enrollment Desk in the Office of the Registrar, 323-2520.
Tuition and Fees

Tuition and Fees
Tuition and fees as shown are those in effect at the time this catalog was printed. George Mason University maintains the right to change its schedule of tuition and fees if and when authorized.

Any person who is undertaking any form of academic study with George Mason University, including supervised research, must be registered as a student and pay the prescribed charges as well as other outstanding financial obligations.

Tuition and fees for pre-registered students are due and payable at the Business Office on or before August 11, 1978 and January 8, 1979. All other students must pay during the registra-

Tuition and Fees Schedule

<table>
<thead>
<tr>
<th></th>
<th>In-State Students</th>
<th>Out-of-State Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Fee (a)</td>
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<td>$10.00</td>
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<tr>
<td>Summer Session Enrollment Fee (a)</td>
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<td>10.00</td>
</tr>
<tr>
<td>Tuition, Full Time, per hour</td>
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<td>62.00</td>
</tr>
<tr>
<td>Tuition, Part Time, per hour</td>
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</tr>
<tr>
<td>Graduation Fee (a)</td>
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<tr>
<td>Special Registration Fee (a)</td>
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<td>Private Instruction (b)</td>
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<td>105.00</td>
</tr>
<tr>
<td>Transcript Fee (a)</td>
<td>2.00</td>
<td>2.00</td>
</tr>
</tbody>
</table>

(a) See Other Required Fees, page 23
(b) See Undergraduate Catalog for information.

How to Figure Your Semester Tuition Costs

<table>
<thead>
<tr>
<th>Hours</th>
<th>Rate</th>
<th>Total</th>
<th>Hours</th>
<th>Rate</th>
<th>Total</th>
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<tbody>
<tr>
<td>3 @ $32.00</td>
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<td>3 @ $62.00</td>
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<td>4 @ 32.00</td>
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<td>5 @ 32.00</td>
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<td>6 @ 32.00</td>
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<tr>
<td>7 @ 32.00</td>
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</tr>
<tr>
<td>8 @ 32.00</td>
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<td></td>
</tr>
<tr>
<td>9 @ 32.00</td>
<td>288.00</td>
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<td>10 @ 32.00</td>
<td>320.00</td>
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<td>11 @ 32.00</td>
<td>352.00</td>
<td>11 @ 62.00</td>
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<tr>
<td>12 through 17</td>
<td>384.00</td>
<td>12 through 17</td>
<td>744.00</td>
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</tbody>
</table>

For each additional hour over 17, add $32.00 for In-State and add $62.00 for Out-of-State.
tion process. Failure to make payment during the registration process will result in a late charge of $5.00 per day, up to three days or $15.00.

Checks for tuition, fees, fines or other obligations to the University should be made payable to George Mason University. Second party checks are not acceptable, with the exception of salary paychecks from local business firms payable to the student.

Any check returned to the University by the bank will result in a $5.00 penalty fee for the payer. If payment is not made within five calendar days following notification by the Business Office, the student will be placed on financial suspension without further notice.

Eligibility for In-State Tuition

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 in 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 in the state permanently.

Domicile, however, is primarily a question of intent and the burden of proof of domicile is on the student seeking the benefit of reduced tuition. Students who wish additional detailed information on domicile should contact the Residency Clerk at 323-2108. See below for the State Legislation governing the determination of student status for tuition purposes.

Deferred Payment Plan

A deferred payment plan is available for students whose tuition and fees for the semester exceed $200.00. The student must pay at least $200.00 as the initial payment, with the remaining tuition and fees payable in two equal installments. Students using the deferred plan must come to the Cashier’s Office to make the initial payment and to sign the deferred payment contract. Bills for installment payments will not be prepared. It is the student’s responsibility to ensure payment of his installments on or before the due dates published. Contracts will not be mailed to students.

Failure to make a tuition payment on or before the due date results in a late charge of $5.00 per day, for a maximum of 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 7 calendar days. If satisfactory arrangements have not been completed by the end of the probationary period, the student will be placed on financial suspension without further notice.

Payments must be received in the Cashier’s Office on or before the due date.

Financial Suspension

Students who fail to meet their financial obligation to the University will be placed on financial suspension. These obligations include tuition and fees, emergency loans, traffic fines, library fines, and all related penalties.

Students on financial suspension will have all academic credit withheld. This means that no transcript of record will be issued, no diploma will be released, and no registration for a subsequent semester or term will be permitted. These penalties will be removed upon payment in full of the amounts owed.

Refunds

Tuition, less an administrative charge of $20.00, will be refunded in the event a student cancels registration before the beginning of the semester, or withdraws within the first five (5) working days of the semester. Assessed penalties are non-refundable.

Tuition only will be refunded on a graduated scale for subsequent voluntary withdrawals during the second and third weeks of classes. 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 Tuition and Fees

Students enrolling in off-campus courses are assessed charges at the same rate as those established for on-campus courses. Refer to the Continuing Education Catalog.

Other Required Fees

Application Fee. A fee of $10.00 must accompany all applications for admission or readmission to the Graduate School. This fee is applicable to all admission categories and is not refundable.

Summer Session Fee. A fee of $10.00 must accompany all Summer Session enrollments. The fee is applicable for all terms and is generally not refundable.

Transcript Fee. A fee of $2.00 is charged for each transcript of record when requested by the student and $1.00 for each additional copy ordered at the same time. Payment must accompany the request.

Special Registration Fee. Any student not in attendance at the University who is preparing a thesis under the active supervision of a member of the faculty, or who wishes to return to receive a degree or take an examination, pays a $15.00 registration fee for that semester and is exempt from all other fees.

Graduation Fee. There is a $15.00 graduation fee which is payable at the time the student files his or her “Degree Application” in the Office of the Graduate Dean.

Motor Vehicle Registration. 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.)

Credits Earned Elsewhere

A few George Mason University degree programs include academic credits which students may earn at other institutions. Students enrolling for academic credits at other institutions assume all financial responsibility for these arrangements.

State Legislation Governing the Determination of Student Status for Tuition Purposes

The legislation (Section 23-7 of the Virginia Code), as amended in 1977, relating to persons entitled to certain privileges at state institutions of higher education is as follows:

1. For the purposes of this section, the domicile of an unemancipated minor may be the domicile of either parent; provided, however, that if one parent has custody, the domicile of an unemancipated minor shall be the domicile of the parent having custody. If there is no surviving parent or the whereabouts of the parents are unknown, then the domicile of an unemancipated minor shall be the domicile of the legal guardian of such unemancipated minor if there are no circumstances indicating that such guardianship was created primarily for the purpose of conferring a Virginia domicile on such emancipated minor.
2. Except as provided in 23-7.2, no person in attendance at a State institution of higher education shall be entitled to reduced tuition charges, unless such person is and has been domiciled in Virginia for a period of at least one year immediately prior to the commencement of the term, semester or quarter for which any such reduced tuition charge is sought.

3. A person who enrolls in any such institution while not domiciled in Virginia does not become entitled to reduced tuition charges by mere presence or residence in Virginia. In order to become so entitled, any such person must establish that, one year before the date of the alleged entitlement, he or she was at least eighteen years of age or, if under the age of eighteen, was an emancipated minor, and he had abandoned his or her domicile and was present in Virginia with the unqualified intention of remaining in Virginia for the period immediately after leaving such institution and indefinitely thereafter.

4. A person who is classified or classifiable at the date of his or her marriage as eligible to receive the privileges herein described, may receive or continue to receive such privileges until he or she abandons his or her Virginia domicile and was present in Virginia with the unqualified intention of remaining in Virginia for the period immediately after leaving such institution and indefinitely thereafter.

5. A student who is not a member of the armed forces and who is not otherwise eligible for reduced tuition charges and whose spouse or parent is a member of the armed forces stationed in this State pursuant to military orders shall be entitled to reduced tuition charges if such spouse or either parent, for a period of at least one year immediately prior to and at the time of commencement of the term, semester or quarter for which reduced tuition charges are sought, has resided in Virginia, been employed full-time and paid personal income taxes to Virginia. Such student shall be eligible for reduced tuition through such parent under this section only if he or she is claimed as a dependent for Virginia and federal income tax purposes. Such student shall be entitled to reduced tuition charges so long as such parent or spouse continues to reside in Virginia, to be employed full-time and to pay personal income taxes to Virginia.

6. Entitlement to reduced tuition charges must be established by convincing evidence and the burden of establishing entitlement shall be on the person claiming such entitlement.

7. The State Council of Higher Education for Virginia shall, in conjunction with the Office of the Attorney General, seek to ensure that all State institutions of higher education will apply uniform criteria in determining eligibility for reduced tuition charges.

Definitions

1. Domicile: A person’s true, fixed and permanent home as distinguished from a temporary place of abode; where he remains and intends to remain when not called elsewhere for labor, studies or other special or temporary purposes, and to which he returns in seasons of repose. A person at any one time has but one domicile and a domicile cannot be gained until another is lost. A student’s domicile is assumed to be that of his parent or guardian until such time as the student becomes emancipated and actually establishes his own domicile. Physical presence in the state for the predominant purpose of attending an institution of higher education shall not constitute nor necessarily preclude the acquisition of a domicile in the state, nor shall absence from the state for the predominant purpose of attending an institution of higher education deprive a person of a domicile previously established. Ownership of property in the state; employment in the state; registration as a voter in the state; licensed driver and automobile registration in the state; membership in civic, community and other organizations in the state and elsewhere; location of bank accounts and insurance; admission to a licensed practicing profession in the state; plans after graduation; and the severance of all present and future connections and contacts outside the state are some of the factors which may be considered in determining domicile. None of them, standing alone, shall be sufficient evidence of domicile to warrant in-state classification for tuition purposes, and the absence of any one shall not be sufficient to disqualify a student from such status. Rather, a composite review of the individual’s circumstances will determine classification.

2. Emancipation: The relinquishment by parents, legal guardian or other person in authority of such control and authority over an individual and the renunciation of all parental or guardianship responsibilities. A person who is married or who has attained the legal age of majority (18 years) is considered emancipated for the purpose of establishing domicile.

3. Guardian: A person invested with the power by court and charged with the duty, of taking care of the person and administering the property and rights of another person and with whom the person has resided and by whom he has been supported for a period of at least 12 consecutive months if the person’s parents are dead or have abandoned him.

Penalties

A student who provides false information or refuses or conceals information for the purpose of achieving in-state status, or who fails to notify the Residency Clerk of a change of facts which might effect reclassification from in-state to out-of-state status, shall be required to pay retroactively any tuition fees which would normally have been charged and shall be subject to appropriate disciplinary action.
Fellowships, Assistantships, and Other Financial Aid

George Mason University offers financial assistance to students in the Graduate School through a variety of programs, including fellowships, assistantships, work-study plans, and loans.

University Fellowships
A limited number of unrestricted University Fellowships are awarded to graduate students on a competitive basis. These fellowships, with stipends up to $3500, are funded by the Commonwealth of Virginia and are awarded in all departments. They are intended to encourage and assist superior students in pursuing graduate study and completing requirements for graduate degrees in the minimum possible time. A recipient of a University Fellowship must enroll as a full-time student.

Application should be made on forms supplied by the Graduate School Office. Completed applications must be submitted to the Graduate School for major department review. Applicants not currently enrolled in graduate study at the University must also have filed an application for admission to the Graduate School.

Other Fellowships
Direct fellowship awards are available from a number of foundations. Students may obtain information concerning these fellowships from the Graduate School.

Graduate Assistantships
The Graduate School offers a number of graduate assistantships in the research and instructional programs of the various departments. To be eligible for an assistantship, a student must be admitted to degree status and take a minimum of six semester hours of graduate credit each semester. Assistantships are available in the departments of Biology, Economics, Education, English, Foreign Languages, History, Mathematics, Psychology, and Public Affairs, and in the School of Business Administration. Application for a graduate assistantship is made to the chairman of the department involved or to the Dean of the School of Business Administration. Stipends range from $3400 to $3900 for the academic year.

Other Financial Aid
The Financial Aid Office provides a variety of services to assist graduate students in the financing of their graduate study. These services include financial counseling, referral and information resources, and financial assistance. Student financial assistance consists of grants, loans and employment which are primarily based upon need and secondarily upon academic achievement.

In order to apply for these forms of financial aid, new and currently enrolled students must obtain a copy of the George Mason University Financial Aid Application and return the completed form to the Financial Aid Office. In addition, students must complete a Financial Aid Form and submit it to the College Scholarship Service, Box 2700, Princeton, New Jersey, 08540.

The application deadlines for consideration areas follows:

1978-79 Academic Year
Summer 1978 May 1, 1978
1979-80 Academic Year April 15, 1978

Both the George Mason University Financial Aid Application and the College Scholarship Service Financial Aid Form must be received in the Financial Aid Office by the appropriate deadlines to assure consideration. Applications received after May 1 will be evaluated according to the availability of funds remaining. Applications received after November 1, 1978 will not be evaluated for the current academic year.

The University administers federal aid programs, state programs and other aid programs which are outlined below.

National Direct Student Loans. These are low-interest long-term loans available to qualified students according to their demonstrated financial need. Repayment begins nine months after completion of the graduate program. Amounts up to $2,500 a year are available for graduate students. These funds are usually reserved for full-time students, although exceptions may be made under extraordinary circumstances.

Federal Nursing Loan Program. This program is very similar to the National Direct Student Loan Program. The maximum Nursing Student Loan available to an individual borrower in an academic year, or its equivalent may not exceed $2,500, or the amount of the student’s financial need. Cancellation of the loan is permitted under certain conditions. Federal Nursing Scholarships are available to nursing students who show exceptional financial need.

College Work-Study Program. Qualified students with demonstrated financial need may obtain on- or off-campus part-time employment related to their field of study, and earn up to the total amount of their award, at the prevailing hourly wage rate.

Virginia Graduate Scholarships. Graduate students who are classified as Virginia residents may receive a Graduate Scholarship to cover tuition and fees. They must be enrolled full-time, be formally admitted to the Graduate School, maintain a 3.0 cumulative grade point average, and demonstrate financial need.

In-Service Training Program for Teachers. A candidate for a graduate degree may establish eligibility to receive state funds for graduate study closely related to his field of work through one of the State’s Division Superintendents of Schools. The candidate may use the funds to enroll at the University in previously approved courses.

Guaranteed Student Loan Programs. The State Education Assistance Authority, through participation agreements with lending institutions of the State, enables those institutions to make long-term 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, usually a bank or savings and loan organization. To be eligible, a student must enroll or have been accepted for half-time enrollment. The interest rate is seven 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 completion of the student’s academic program. Loans may not exceed $5,000 per year or a total of $10,000 for graduate work.

Effective July 1, 1978 students may borrow directly from the Virginia Education Loan Authority (VELA), the state guaranteeing agency. Applications for the VELA guaranteed loan will be available in the Financial Aid Office in the late spring. For the state and federal loans obtained through lending agencies other than VELA, those agencies will have the required forms.

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Emergency Loan Program. Students who are currently enrolled may borrow up to $75 on a short-term basis. Emergency loans are for legitimate emergencies and are not for tuition and fees or books and supplies. Emergency loans are to be repaid within 45 days, and overdue payment results in a late charge of $5.00. Failure to repay the loan within 45 days, without requesting an extension for a reasonable excuse, may result in financial suspension. If a student is ever financially suspended for failure to repay the emergency loan, that student will forfeit the possibility of any future emergency loans.

Other. Additional forms of aid are available to graduate students from a variety of sources. Extensive information about these specific programs is available in the Office of Career Planning and Placement, Room 365 of the Student Union.

Academic Regulations

Permission to Register
Registration in the Graduate School is permissible only after the student has been notified of his or her admission by the Dean of the Graduate School. At course registration, degree students will be given preference over non-degree students if the number of applicants exceeds the enrollment limits. Dual registration, e.g., as a graduate student and as an Extended Studies enrollee, is not permitted.

The responsibility for being properly registered rests with the student, who should be aware of all regulations and procedures required by his or her program of study. Regulations are not waived nor are exceptions granted because of ignorance of University or departmental regulations.

Faculty Adviser and Academic Advising
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. Registration for newly admitted graduate students, as well as continuing students, begins with a visit to the student’s academic adviser. There the student can obtain information about specific courses and degree requirements and will develop, in consultation with a graduate faculty adviser, an individual program of study. Progress in an approved program of study is a shared responsibility of the student and his or her adviser. The student is responsible for compliance with the rules and procedures of the Graduate School, and all applicable departmental requirements which govern the individual program of study. The student should also consult with his or her adviser for course approval before registration each semester.

Schedule of Classes and Course Approval Form
In developing a program of study with his or her adviser, the student will need to consult the Schedule of Classes, published well in advance of each registration period by the Registrar’s Office. It provides information about the times and locations classes will be offered, the names of course instructors, final examination schedule, and procedures for paying tuition and fees, dropping or adding a course, or making other changes in registration. Schedules of Classes will be mailed only to newly admitted graduate students. Continuing students will find schedules in their departments, at the information desk in the Student Union, at the information desk in Finley Building, as well as at the Registrar’s Office in the East Building.

The Schedule of Classes also contains the Course Approval Form to be used at the time of registration. For each registration the student, in consultation with his or her adviser, prepares a schedule of courses appropriate to departmental requirements and individual needs. This schedule is then entered on the Course Approval Form. The schedule of courses should be approved by the faculty adviser prior to each registration.
Registration Procedures and Information

The Schedule of Classes contains detailed instructions for registering. At each registration, the student must complete and sign the Information Card. Information requested on this card is used to establish the student's master record and serves as the basis 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 instruction 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.

Any student who fails to present himself at the time specified for registration will not be permitted to register unless he can explain his delay to the satisfaction of the Graduate Dean or his representative.

As an integral part of the registration process, each student is issued 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.

Each student is required to notify the Office of the Registrar of any change of home address, telephone number, change of the name or address of parent or guardian, or change of legal name. When a student's legal name is changed, the Office of the Registrar reserves the right to require a certified copy of documents authorizing the change. Such documents will be kept in the student's permanent file.

Course Numbering System

Graduate courses are those numbered 500 and above. Courses numbered 499 and below are undergraduate courses, some of which, as indicated below, are approved for graduate credit.

Grading System

The conventional A through F grading system is used in graduate level courses. The four passing grades are A, B, C, and D. Grade of F signifies that work was failed. The mark of I (incomplete) may be given when all course requirements have been completed except for the completion of assigned papers or reports which the student has been compelled to postpone for reasons beyond his or her control. 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. The grade point average (GPA) is the sum of the grade points earned divided by the number of semester-hours. A grade report is mailed to the student at the end of each semester. Regulations concerning "Incomplete" marks may be found under Change of Grades.

Each faculty member is responsible for preparing the examinations for his or her course and determining the grades. Policies concerning the weight given to examinations in computing final grades and the kinds of examinations used may differ according to the preferences of individual instructors.

Graduate students must maintain a B average to be in good standing (See Academic Probation and Dismissal). Computation of the grade point average will begin with the semester in which the student initially registers following admission into the Graduate School. Thus all grades for undergraduate courses taken after initial registration 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. However, the credit hours pertaining to the undergraduate courses will not be used in the computation of the total hours in the grade point average for the graduate degree.

Final Examination Policy

Written examinations are held at the end of each semester. 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 judgement regarding the use of a formal examination at the end of the course.

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. A request to take an examination late should be made on a Student Request Form.

Academic Load

All graduate students are urged to register each semester for only that number of hours which they can successfully complete. The minimum full-time academic load for students is nine hours per semester during the regular academic year. A normal full-time academic load is twelve semester-hours. During the summer, a normal full-time academic load is nine semester-hours for the entire session. Permission of the department chairman is required to exceed the normal load.

Students are expected to attend the class periods of the courses for which they are registered.

Completion of Undergraduate Prerequisite 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, but only during the student's first semester in the graduate program.

Undergraduates Registering for Reserve Graduate Credit

A student may seek to take a graduate course (those numbered 500 or above) either for undergraduate credit or for reserve graduate credit. Enrollment in a graduate level course for undergraduate credit does not in any way imply subsequent approval for admission into a graduate program, nor may the course be used as credit for a graduate degree at George Mason University.

Approval to register for reserve graduate credit (earned credit held in reserve to apply later toward a graduate degree) is normally given only to George Mason seniors who are within 15 hours of completion of undergraduate study. In addition, this privilege will
normally be extended only to seniors who have completed a minimum of twelve semester-hours at George Mason University, have a cumulative grade-point average of 3.0 or better, have successfully completed all prerequisite courses, and have a major in the department in which the courses are offered. Permission must be obtained in writing prior to registration. Forms for this purpose are available in the Graduate Dean's Office. It is the student's responsibility to obtain all signatures required and to submit a current transcript with the request.

Approval for reserve graduate credit does not imply approval for admission into a graduate program at George Mason University or that credit so earned will be accepted at another graduate school. Credit will not be given toward both graduate and undergraduate degrees for the same course.

Undergraduate—Graduate Courses

A number of departments offer upper-level undergraduate courses which have been approved for graduate credit. A maximum of two of these courses, or six semester hours, may be applied toward a master's degree, provided they are taken after the student's admission to the Graduate School and with the prior written approval of the student's advisor and the department offering the course. Approval is given only after determination that the course or its equivalent has not been taken for credit for an undergraduate degree.

Adding and Dropping Courses

In order to drop or add a course, a student must obtain written permission from the chairman of the department in which the dropped course is taught. Forms for this purpose may be obtained from the department. The last day for adding courses shall be no later than 14 calendar days after and including the first day of classes. The last day for dropping a course without incurring a "W" is nine calendar weeks after and including the first day of classes. Students who drop a course after that period and before the last day of classes will have the mark of "W" recorded on their permanent record for such courses. No student may withdraw from courses after final examinations begin. A student who discontinues a course without proper permission will receive a grade of "F" in that course.

Students who drop all coursework must also file a withdrawal form. All of the required signatures must be obtained on or before the deadlines shown in the Academic Calendar. For further information, see Withdrawal from the University.

Change of Grade

Final grades in courses for graduate credit may be changed only on the basis of the following two circumstances and procedures.

Change from "Incomplete" to Letter Grade. The mark of "Incomplete" may be given by an instructor to a student who has satisfactorily completed all the requirements of a graduate course except for the completion of assigned papers or reports which the student has been compelled to postpone for reasons beyond his or her control. If the student fails to complete all requirements in time for the instructor to assign a regular grade by the last day of classes of the following semester (not including the Summer Session), the mark of "I" will be changed by the Registrar to the grade of "F". Both the student and the instructor shall be notified of this change of grade. (Incomplete marks in thesis registration are not subject to this time limit.) While the mark of "I" remains on the transcript, it is not included in the student's grade-point average. A student may not register in a course in which he or she has received a mark of "I". The initiative for the removal of an "Incomplete" rests with the student.

Approval for reserve graduate credit does not imply approval for admission into a graduate program at George Mason University or that credit so earned will be accepted at another graduate school. Credit will not be given toward both graduate and undergraduate degrees for the same course.

Change of Final Grade. Once a final grade in a course has been recorded by the Registrar, it can be changed only in cases of computational error, or other justifiable cause approved by the Graduate Dean. (Refer to "Challenge of Grade" procedure below.) All changes of final grades must be initiated, approved and recorded prior to the last day of classes of the next regular semester (exclusive of Summer Session).

Challenge of Grade

Although, except in extraordinary circumstances, the individual faculty member must be the best judge of the performance of students in his class, there may be instances in which a student believes a grade has been assigned unfairly. In such cases the student should first ask the professor to reconsider the grade. If the student is not satisfied, he may appeal to the chairman, who should then initiate procedures established by the department. No challenge of grade will be considered after the end of the drop period of the next regular session (exclusive of the Summer Session).

Repeating a Course

A student who has passed a course with a grade of "B" or better is not permitted to repeat the course. A student may repeat a course in which a grade of "C" or below has been earned. Permission for repeating the course must be obtained from the department offering the course. Each department shall establish procedures for granting of permission for repeating a course. In cases where courses are repeated, the following conditions apply:

1. All hours attempted are to count in computation of the student's cumulative grade point average.
2. A transcript will show both the original and repeat grades and the respective grade points.
3. Only one grade with appropriate grade points may be presented on the Degree Application.

Auditing a Course

Under certain circumstances a student may be given permission by the appropriate department chairman to audit a course. However, a student may not take for credit a course which has been previously audited. The usual University fees apply to audit status. Additional information regarding audit status may be obtained from the appropriate department chairman.
Academic Probation and Dismissal
A student who, at the end of any semester, fails to maintain a cumulative "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 attain a "B" average in grade points within two semesters of work taken at George Mason University or be liable to dismissal from the program. Degree and non-degree students are subject to the same regulations concerning probation and dismissal. A student who falls nine grade points or more below a "B" average at any time after the first semester of study will be subject to dismissal. No graduate credit transferred from another institution will be included in the calculation of the grade point average. Therefore, in determining probation and dismissal, credit earned outside the University will not be counted.

Change from Provisional or Non-Degree to Degree Status
In order for a change from provisional or non-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. It is the responsibility of the student to supply an up-to-date George Mason University transcript in support of his or her request. Appropriate documentation, such as transcripts, letters of recommendation, or test scores needed to support the request for change of status must be submitted to the Graduate School Admissions Office.

Credits earned in the provisional or non-degree status may be used subsequentially in meeting degree requirements if recommended by the faculty adviser and department chairman, and approved by the Dean of the Graduate School. However, a maximum of 12 graduate credits earned in non-degree status may be applied toward a master's degree. 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.

Transfer of Credit
With the approval of the appropriate department, a student may transfer up to six semester hours of graduate credit earned at other accredited institutions prior to his or her acceptance and enrollment in the George Mason University Graduate School. Undergraduate courses taken at other institutions are not transferable for credit to graduate programs within George Mason University. All graduate work offered as transfer credit must be applicable to the degree program the student is pursuing at George Mason University.

Credit is normally considered for transfer, upon the request of the student, at the time of initial registration as a degree student. The student will receive written confirmation from the Dean of the Graduate School of all credits approved for transfer.

After enrollment as a degree student and with the prior approval of his or her department chairman and the Graduate Dean, a student 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 courses 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.

Criteria That Courses Must Meet to Be Acceptable for Transfer Credit
In all cases of courses accepted for transfer of credit, including those taken within the Consortium for Continuing 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. Extension and in-service courses which are not intended by the institution offering the courses to be part of a degree program will not be acceptable for transfer to George Mason University. It is the student's responsibility to furnish evidence that any courses presented for transfer of credit would be applicable to a comparable degree at the institution where earned. If this information is not on the official transcript, it must be obtained in writing from the appropriate Dean at that institution.

The decision as to the acceptability of work taken elsewhere and presented for transfer credit to a graduate program at George Mason University is the responsibility of the appropriate department, subject to the approval of the Graduate Dean.

Permission to Take a Course Elsewhere
When a student is already enrolled at 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 from department chairmen. It is the student's responsibility to request transfer credit for such courses after their completion and to have an official transcript submitted to the Graduate School Admissions Office at George Mason University for evaluation of possible transfer of credit. 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.

Withdrawal from the University
A student is considered in attendance until he or she has formally notified the University of his or her withdrawal. A student who drops all courses in any semester must withdraw officially from the University. An official withdrawal form must be obtained from the Office of the Registrar and 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.

A student withdrawing from the University during any semester or summer session before the final examinations forfeits credit for the work done in that term. Students who withdraw with permission of the Dean receive "W" on their official record; those who withdraw without permission of the Dean receive "F" for all courses (failure because of unauthorized withdrawal). The University may impose enforced withdrawal as a penalty for any fault which prevents the student from fulfilling the purposes of enrollment.

Student Requests and Appeals
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 from departmental offices. It is the responsibility of the student to supply an up-to-date transcript in support of his or her request.
Requirements Applicable to All Master's Degrees

Graduate School Degree Requirements

To qualify for a master’s degree, a candidate must satisfy all Graduate School degree requirements and all requirements set by the department in which the graduate program is offered. Specific departmental degree requirements are listed under the respective graduate programs in this catalog.

In order to meet the degree requirements applicable to all master's degrees as established by the Graduate School, a candidate must:

1. acquire a minimum of 30 semester hours of graduate credit;
2. have a “B” or higher average in all coursework used to satisfy degree requirements;
3. complete at least 18 semester hours after having been admitted to degree status;
4. complete at least 24 semester hours at George Mason University of which:
   a. a maximum of two courses or 6 semester hours may be upper-level undergraduate courses approved for graduate credit;
   b. no more than 12 semester hours may have been earned through enrollment in non-degree status or through Extended Studies prior to acceptance in a degree program;
   c. no more than 6 semester hours may be transfer credit with the amount of applicable credit earned in non-degree status or through Extended Studies enrollment reduced accordingly (exceptions are noted under Transfer of Credit and individual degree programs);
5. complete all courses submitted for the degree within a period of six years.

Degree candidates are subject to those academic regulations in force at the time of their initial registration in degree or provisional status following admission. Degree candidates who have been readmitted following voluntary withdrawal for more than one semester are subject to those academic regulations in force at the time of their initial registration following readmission. All degree candidates have the option of graduating under the academic regulations in force at the time the degree is to be awarded.

Residence

Normally, at least 24 semester-hours must be completed at George Mason University. 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. Exceptions are noted under Transfer of Credit and under individual degree programs.

Time Limit

The student must complete all degree requirements for the desired master’s degree within six years from the date of his or her initial registration as a graduate student.

Thesis and Non-Thesis Options

Requirements regarding a thesis vary with the degree program. A number of master's programs provide for either a thesis or non-thesis option. The quality of the work expected of the student electing the non-thesis option is identical to that of the thesis option. For further information, consult the section on degree requirements under each degree program.

Thesis

When a thesis proposal has been approved by the appropriate department, the chairman of the department sends to the Dean of the Graduate School a copy of the thesis proposal, including the names of the members of the thesis committee. The student may then enroll in the thesis research course (599) at the beginning of the next academic semester.

The thesis committee is named by the chairman of the candidate's department, who designates the committee chairman. The committee will be appointed after consultation with the candidate and his or her adviser, and it normally will consist of three persons, one of whom may be chosen initially, or at a later date, from outside the department.

The chairman of the thesis committee is primarily responsible for directing and guiding the candidate’s research and writing activities. It is the responsibility of the student to keep all members of the committee informed of the scope, plan, and progress of both the research and the thesis.

Any student wishing to elect the thesis option should consult the Guide for Preparing Master's Theses in this catalog. The student will be permitted to register in Thesis (599) only after a thesis proposal has been submitted, and approved, as prescribed in the Guide.

Copies of the thesis must be deposited with the Graduate Dean on or before the date specified in the academic calendar published in the Graduate Catalog. Any student not in attendance at the University who is preparing a thesis under the active supervision of a member of the faculty, or who wishes to take an examination, pays a $15.00 special registration fee for that semester and is exempt from all other fees.

Guide for Preparing Master’s Thesis

The thesis is expected to demonstrate a candidate’s capacity to carry out independent research. The research project is to be closely related to the candidate’s general educational objectives, providing an opportunity to contribute creatively to knowledge rather than constituting mere fulfillment of an academic requirement.

The candidate’s research topic should be in view as early as possible in his or her graduate career. The candidate should consult with his or her program adviser on the choice of a thesis topic. The choice of topic should take into consideration the candidate’s background and interests, ability to handle the problem, accessibility of source materials, and the probable worth of the study. Early formulation of the topic will enable the student to equip himself more effectively with the necessary tools of research such as languages, statistics, and accounting procedures.
The student can then plan with the program adviser more purposefully the courses to be included in his or her program which will best prepare the student for the comprehensive examinations related to the major interest. All of these requirements should be embodied in a well-conceived plan of graduate study.

Regulations which are contained in this Guide apply to all theses submitted in fulfillment of requirements for the master's degree at George Mason University.

**Procedure for Submitting the Thesis Proposal.** The candidate should submit six copies of a type-written thesis proposal to the chairman of his or her department of academic study. A model title page for the thesis proposal is shown on page 6. The approval of the department chairman should be embodied in a well-conceived plan of graduate study. The thesis proposal must include the following items:

1. The candidate's full name.
2. The date of submission of the thesis proposal.
3. The department of academic specialization.
4. The degree sought by the candidate.
5. The tools of research, if required for the degree, together with certification.
6. The tentative title of the thesis (subject to modification in consultation with the thesis committee).
7. The signatures of the members of the thesis committee.
8. The approval of the department chairman.
9. A cogent and concise statement of the major problem of research and supporting problems, not to exceed six double-spaced pages. This statement might well include a selected bibliography pertinent to the subject.

Upon approval of the proposal by the chairman of the department, the candidate will prepare an original and two copies of the final text. One copy must be deposited with the chairman of the candidate's department, who designates the members of the candidate's thesis committee to examine. Acceptance and approval of the proposal indicates that the topic is considered to be a suitable one; and that the thesis, if developed, will be accepted. The chairman of the department will notify the candidate of the action taken on the proposal.

The student will be permitted to register in Thesis (599) and pursue his research only after a thesis proposal has been submitted and approved as prescribed above.

**Thesis Committee.** The thesis committee is named by the chairman of the candidate's department, who designates the committee chairman. The committee will be appointed after consultation with the candidate and his or her adviser, and normally will consist of three persons, one of whom may be chosen initially, or at a later date, from outside the department.

**Preparation of Copy of Master's Thesis.** The candidate is expected to prepare the text of the thesis in accordance with the usual practices of good English, or of any other language in which it is written. The candidate is also expected to provide copies of the manuscript (either in draft or final form) for all members of his or her thesis committee to examine.

Following acceptance of the thesis by the committee, the candidate will prepare an original and two copies of the final text. The two copies may be either carbon or xeroxed copies. One copy must be deposited with the chairman of the candidate's department. The original manuscript and one copy must be deposited with the Graduate Dean. The Dean forwards the original manuscript and the copy to the University Library for binding and permanent reference.

The following regulations govern preparation of the thesis:

1. The manuscript must be typed on bond paper of either sixteen or twenty pound weight. The paper used must be

Acceptance and approval of the proposal indicates that the topic is considered to be a suitable one; and that the thesis, if developed, will be accepted. The chairman of the department will notify the candidate of the action taken on the proposal.

The student will be permitted to register in Thesis (599) and pursue his research only after a thesis proposal has been submitted and approved as prescribed above.

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Following acceptance of the thesis by the committee, the candidate will prepare an original and two copies of the final text. The two copies may be either carbon or xeroxed copies. One copy must be deposited with the chairman of the candidate's department. The original manuscript and one copy must be deposited with the Graduate Dean. The Dean forwards the original manuscript and the copy to the University Library for binding and permanent reference.

The following regulations govern preparation of the thesis:

1. The manuscript must be typed on bond paper of either sixteen or twenty pound weight. The paper used must be
uniform in weight throughout the thesis. Paper must measure
8½ x 11 inches.
2. The title page must be prepared in correspondence with the
sample shown below.
3. Only pica, elite, or bookface type is acceptable. The type
face chosen should be used consistently throughout the
thesis. A black ribbon must be used to produce a clear, dense
copy suitable for microfilming. Clean type is essential to
good reproduction of the manuscript. Diagrams and charts
must be prepared in india ink. All errors must be corrected in
type; ink corrections are unacceptable. Professional appear-
ance is required of the finished manuscript.
4. Unless departments specify otherwise, candidates are advised
to consult the current edition of William G. Campbell’s,
Form and Style in Thesis Writing (Houghton, Mifflin Co.) for
guidance concerning style.
5. The manuscript must contain a table of contents, a list of
references used and, if appropriate, a list of tables, maps, or
illustrations.
6. The text must be typed double-spaced, with footnotes single-
spaced. Footnotes must appear on the page to which they
relate. Margins of the text must be: one and one-half inches
on the left, one inch on the right; and approximately one and
one-quarter inches at the top and bottom of the page.
7. In footnotes, lists of references or other bibliographic entries,
the titles of books, pamphlets, and journals should be under-
lined (words only - not spaces). Titles of articles or chapters
in books should appear in quotation marks.
8. Two copies of an Abstract of the thesis, consisting of no
more than one hundred fifty words, must be submitted with
the thesis.
9. The title page of the original copy must be signed by the
members of the thesis committee and approved by the chair-
man of the department before it is submitted (together with
the original copy) by the candidate to the Dean of the
Graduate School for his signature.
10. The original and one copy should be clamped or clipped by
a folded stiff cover or spring-back binder, but it must not
have holes or staples in any margin since it must be processed
for binding.
11. Copyright: It is the candidate’s responsibility to obtain writ-
ten permission of the copyright owners for the use of copy-
righted material beyond brief excerpts in the thesis. The
candidate must sign an agreement with the University which
certifies that permission has been obtained and that the can-
didate will “save and hold harmless George Mason University
from any damages which may arise from copyright viola-
tions.” This agreement must be filed with the Registrar’s Of-
fice before the thesis will be accepted.
12. The candidate must decide whether or not to copyright the
thesis. Information on copyright protection may be obtained
at the reference desk in the Library.

Degree Application
Students who expect to complete graduation degree require-
ments must secure a Degree Application from the Office of the
Registrar and return it completed to the Graduate School Office
by the date designated in the Academic Calendar. There is a
$15.00 graduation fee which is payable at the time the student
submits his or her Degree Application. Any student who fails to
complete degree requirements in that semester for which the De-
gree Application was filed, must submit a new Degree Applica-
tion by the next appropriate deadline.

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 partici-
pate in the formal graduation ceremonies must notify the Of-

cice of the Registrar at least 24 hours prior to the date and time
of the ceremony.

Second Master’s Degree
A student holding a master’s degree may earn a second master’s
degree in another discipline. For admission to a second master’s
degree program, the student files an application and submits
transcripts and other documents required.

Course credits already submitted in fulfillment of require-
ments 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 may be allowed, upon the recommendation of
the department chairman and with the approval of the Graduate
Dean.
Graduate Programs

Degree programs at the master's level are offered in the following fields:

- Biology (MS)
- Business Administration (MBA)
- Economics (MA)
- Elementary Education (M Ed)
- English (MA)
- Guidance and Counseling (M Ed)
- History (MA) (MAT)
- Mathematics (MS)
- Psychology (MA)
- Public Administration (MPA)
- Reading (M Ed)
- School Administration and Supervision (M Ed)
- Secondary Education (M Ed)
- Spanish (MA)
- Special Education (M Ed)

Faculty

Professors: Tombes (Chairman), Emsley, M. Stanley, Taub, Wall

Associate Professors: Andrykovitch, Bradley, Ernst, Kelso, Shaffer, Skog

Assistant Professors: Hammond, Hart, Joyce, Kaplan, Lawrey, Lyons, Rockwood, Royt, Schonewald, Sherald, D. Stanley, Torzilli, Wilson

Master of Science in Biology

The objective of the biology graduate program is to serve the needs of:

1. Persons with recent baccalaureate degrees who need advanced training in biology to qualify for employment at those private and public institutions which hire professional biologists.
2. Persons presently employed, including established teachers and other professionals, who wish to further their careers.
3. Research-oriented persons who expect to qualify for employment on the strength of the Master of Science degree or who hope to proceed to the Doctor of Philosophy degree at another institution.

Students may specialize in Environmental Biology; Systematic, Evolutionary and Population Biology; Molecular, Cellular, and Organismal Biology; or may pursue a general biology program.

Departmental Entrance Requirements

In addition to fulfilling the entrance requirements of the Graduate School, 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 degree requirements of the Graduate School, the candidate for the Master of Science in Biology must:

1. Acquire two or more semester-hours of credit in seminar (BIOL 591: Current Topics in Biology (1), BIOL 592: Seminar in Environmental Biology (1), BIOL 595: Seminar in Molecular, Cellular or Organismal Biology (1)). For all students, at least one of these credits must be in BIOL 591. In the case of students enrolled in the Environmental Biology specialization, at least one of these credits must be in BIOL 592, and for those students enrolled in the Molecular, Cellular, and Organismal Biology specialization, at least one of these credits must be in BIOL 595.
2. Complete at least 30 semester-hours of graduate work with not more than two approved undergraduate courses. Students in the Molecular, Cellular, and Organismal Biology specialization may be required to take more than 30 hours.
3. Satisfy the departmental examiners in a comprehensive examination to be taken at the conclusion of all formal coursework and a thesis defense when appropriate.

**Specializations**

**Specialization in Environmental Biology**

A student electing the Environmental Biology specialization must take BIOL 540: Environmental Biology I (3), and BIOL 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 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. Marine Ecology may be substituted for the Freshwater Ecology requirement in the first two elective areas. Up to six semester hours of credit in BIOL 593: Independent Study in Biology (1-3) and/or BIOL 599: Thesis (3-6) may be submitted for electives in any of the three areas. A student may substitute other electives not shown in the table only after consultation with her or his graduate committee and approval of the graduate coordinator in the Department of Biology. No more than two courses may be taken from the supporting courses allowed outside of the Department of Biology.

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<thead>
<tr>
<th>Areas</th>
<th>Pollution Assessment &amp; Mgmt.</th>
<th>Natural Ecosystem Mgmt.</th>
<th>Environmental Planning</th>
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<td>Undergraduate-Graduate Courses in Biology</td>
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<tr>
<td>BIOL 447 Microbial Ecology (4)</td>
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<td><strong>Graduate Courses in Biology</strong></td>
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<td>BIOL 512 Experimental Design and Analysis for the Life Sciences (3)</td>
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<td>BIOL 531 Food, Energy and Insects (3)</td>
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<td>BIOL 546 Marine Ecology (4)</td>
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<td>BIOL 547 Analysis of Terrestrial Ecosystems (4)</td>
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<td><strong>Supporting Courses in Other Departments</strong></td>
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<td>BUAD 551 Quantitative Management (3)</td>
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<tr>
<td>ECON 552 Advanced Regional and Urban Economics (3)</td>
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<td>ECON 555 Resource Economics (3)</td>
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<td>ECON 575 Economics of Urban Transportation Planning (3)</td>
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<td>GOVT 326 Introduction to Public Planning (5)</td>
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**Specialization in Systematic, Evolutionary and Population Biology**

A student electing the Systematic, Evolutionary and Population Biology specialization must have previously passed a course in basic evolutionary theory equivalent to BIOL 471: Evolution. The student will be required to take BIOL 512: Experimental Design and Analysis for the Life Sciences (3); BIOL 548: Population Ecology (3); and BIOL 527: Current Problems in Evolutionary Theory (3). The departmental requirement of at least two semester-hours in seminar must also be satisfied. The balance of 19 semester hours to complete the 30 semester-hours required for the Master of Science degree will be selected only with the approval of the student's Graduate Committee from the following list of approved graduate courses:

- 522 Methods and Principles of Animal Taxonomy [Insects] (3)
- 523 Reproductive Strategies (3)
- 524 Coevolution of Plants and Animals (3)
- 525 Animal Navigation (3)
- 526 Paleocology (4)
- 532 Animal Behavior (3)
- 540 Environmental Biology I (3)
- 544 Advanced Plant Systematics (3)
- 545 Freshwater Ecology (4)
- 546 Marine Ecology (4)
- 547 Analysis of Terrestrial Ecosystems (4)
- 549 Biological Resource Management (3)
- 558 Tropical Ecosystems (3)
- 562 Problems in Development (3)
- 593 Independent Study in Biology (1-3)
- 599 Thesis (3-6)

Not more than two approved undergraduate-graduate courses may be selected from within the following list (see Undergraduate Catalog for details): BIOL 413, 415, 441, 447, 448, 464, 465, 480, 482, 483, 484, 485.

**Specialization in Molecular, Cellular, and Organismal Biology**

Students electing the Molecular, Cellular, and Organismal Biology specialization must complete 20 hours in one of four areas (genetics, microbiology, molecular biology, physiology), including all courses marked (**), write and successfully defend a thesis based on experimental research in that area, and satisfy the departmental seminar requirement with one hour in BIOL 591 and one hour in BIOL 595. Additional hours to complete the 30 semester-hours of graduate credit required for the Master of Science degree will be chosen from electives (*) on the area list. Substitutions may be made only with the approval of the student's Graduate Committee and the graduate coordinator in the Department of Biology. Population Genetics may be substituted for Microbial Genetics in the genetics area.

Students who have completed any required (***) courses, or their equivalent as determined by the Department, in their undergraduate programs will be excused from those courses but must still present a total of 20 hours of graduate credit from the area list. Graduate School regulations permit no more than two approved undergraduate courses to be taken for graduate credit. It is expected that most individuals electing this specialization will have completed some of the required (***) undergraduate courses in their undergraduate programs. Students who are compelled by their area requirements to take undergraduate-graduate courses in excess of two are required to complete the excess without receiving graduate credit.

Qualification for this specialization requires prior completion of all prerequisites indicated (#) for the area chosen. Individuals without these prerequisites and provisional or non-degree admissions may enroll in courses in their area only if their Graduate Committee approves such enrollment based on proof of prerequisites satisfactory to the Committee.
Prerequisites to Area

<table>
<thead>
<tr>
<th>Areas</th>
<th>Microbiology</th>
<th>Molecular Genetics</th>
<th>Biology</th>
<th>Physiology</th>
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<tr>
<td>CHEM 282</td>
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<td>BIOL 281</td>
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<td>BIOL 283</td>
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<td>CHEM 111-112</td>
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<td>CHEM 213-214, 215, 218, or 220</td>
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Graduate Courses

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>BIOL 511</td>
<td>Human Genetics (3)</td>
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<tr>
<td>BIOL 512</td>
<td>Exptl Design, Analysis Life Sci. (3)</td>
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<td>BIOL 523</td>
<td>Reprod Strategies (3)</td>
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<td>BIOL 560</td>
<td>Ultrastruct. (3)</td>
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<td>BIOL 561</td>
<td>Comp. Animal Physiol. (3)</td>
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<td>BIOL 562</td>
<td>Prob. Dev. (3)</td>
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<td>BIOL 565</td>
<td>Environ. Hazards (3)</td>
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<td>BIOL 567</td>
<td>Mol. Genetics (3)</td>
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<td>MATH 501 Topics Comp. Sci. (3)</td>
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Undergraduate Courses Approved for Graduate Credit

(Students may receive graduate credit for only two courses.)

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<tr>
<th>Course</th>
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<tr>
<td>BIOL 412</td>
<td>Microbial Genetics (3)</td>
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<td>BIOL 413</td>
<td>Sel. Top. Genetics (3)</td>
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<td>BIOL 415</td>
<td>Pop. Genetics (3)</td>
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<td>BIOL 464</td>
<td>Plant Physiol. (4)</td>
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<td>BIOL 425</td>
<td>Mamm. Phys. (4)</td>
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<td>BIOL 446</td>
<td>Env. Physiol. (3)</td>
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<td>BIOL 447</td>
<td>Micro. Ecol. (4)</td>
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<tr>
<td>BIOL 462</td>
<td>Adv. Cell Phys. (3)</td>
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<td>BIOL 464</td>
<td>Histology (4)</td>
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<td>CHEM 331, 332</td>
<td>Phys. Chem (6)</td>
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<td>CHEM 422</td>
<td>Instr. Analysis (4)</td>
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<td>CHEM 431</td>
<td>Chem. Thermodyn. (3)</td>
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<td>CHEM 432</td>
<td>Atomic Mol. Struct. (3)</td>
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<tr>
<td>CHEM 461, 462</td>
<td>Biochem. (6)</td>
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Undergraduate-Graduate Courses

The following undergraduate courses have been approved for graduate credit. No more than two of these may apply to the degree. Course descriptions appear in the Undergraduate Catalog.

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<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>412 Microbial Genetics (3)</td>
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<td>413 Selected Topics in Genetics (3)</td>
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<td>415 Population Genetics (3)</td>
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<td>425 Mammalian Physiology (4)</td>
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<td>441 Plant Anatomy (4)</td>
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<td>444 Paleobotany (4)</td>
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<td>446 Environmental Physiology (3)</td>
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<td>447 Microbial Ecology (4)</td>
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<td>448 Symbiology (4)</td>
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<td>462 Advanced Cellular Physiology (3)</td>
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<td>464 Plant Physiology (4)</td>
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<td>465 Histology (4)</td>
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<td>471 Evolution (3)</td>
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<td>480 Ichthyology (4)</td>
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<td>483 Mammalogy (4)</td>
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<td>484 Vertebrate Paleontology (4)</td>
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<td>485 Herpetology (4)</td>
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Graduate Courses

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<tr>
<th>Course</th>
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<tr>
<td>511 Human Genetics (3)</td>
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Prerequisite: BIOL 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., BIOL 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. Three lecture hours.

521 Origin of the Cultivated Plants and Their Impact on Man and Society (3)

Prerequisite: One upper-division botany course, BIOL 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.

522 Methods and Principles of Animal Taxonomy [Insects] (3)

Prerequisite: A previous course in entomology or permission of the instructor. A study of the theory of and techniques used in animal classification with emphasis on their practical application to a laboratory problem dealing with the insects. One hour of lecture, six hours of laboratory.

523 Reproductive Strategies (3)

Prerequisite: BIOL 311 or 344 or permission of instructor. The comparative reproductive biology of selected plants and animals and the relationship with population genetics, evolution and systematics in these organisms. Three lecture hours.

524 Coevolution of Plants and Animals (3)

Prerequisite: A course in evolution. The course includes the mechanisms of evolution of plant and animal interactions, chemical communication, population dynamics, energetics of ecosystems, and development of the interactions over time. Three lecture hours.

525 Animal Navigation (3)

Prerequisite: A previous course in Animal Behavior or Statistics, or permission of the instructor. A lecture and seminar course exploring the mechanisms by which animals orientate and navigate while homing or migrating. Emphasis will be placed on the vertebrates. Three lecture hours.

526 Paleocoeology (4)

Prerequisites: Two of the following or their equivalents: BIOL 220, 342, 445, 471, 481, or GEOL 102, or permission of the instructor. A study of the origin and evolution of the interrelationships between components of the earth’s major ecosystems. Three lecture hours, three laboratory hours.

527 Current Problems in Evolutionary Theory (3)

Prerequisite: A previous course in evolution equivalent to BIOL 471 or permission of the instructor. A course on contemporary evolutionary thought. Three lecture hours.

531 Food, Energy and Insects (3)

Prerequisite: A 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: BIOL 324 or permission of instructor. A study of the ecological aspects of animal behavior. Three lecture hours.

540 Environmental Biology I (3)

Prerequisite: A previous 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: BIOL 344 or equivalent. A study of the morphology and speciation of the more complex families such as Poaceae, Cyperaceae and Asteraceae. The lab emphasizes identification of specimens and acquaintance with taxonomic literature. One lecture hour, six 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 the 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 comparison of major world ecosystems and discussion of ecosystem models. Laboratory work will emphasize techniques of
548 Population Ecology (3)
Prerequisites: 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: BIOL 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 systems analysis. 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. A problem in contemporary botany will be discussed. The topic will depend upon the specialty of the instructor. May be repeated only with permission, Chairman, Department of Biology. Three lecture hours, or two lecture hours and three laboratory hours.  

561 Comparative Animal Physiology (3)
Prerequisite: A course in animal physiology and two semesters of biochemistry and permission of instructor. A presentation of organ function in both invertebrates and vertebrates. The emphasis will be on current advances in the understanding of physiological mechanisms in diverse animals. Three lecture hours.

562 Problems in Development (3)
Prerequisites: 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 morphogenetic movements, differentiation, regeneration, aging and malignancy. The student becomes familiar with experimental organisms and systems of unique value in developmental biology. Three lecture hours.

565 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 overcrowding. Methods of identifying, evaluating, and controlling problems are considered. Three lecture hours.

567 Molecular Genetics (3)
Prerequisites: BIOL 311 or permission of instructor. A study of the molecular structure of genetic material and the control of gene expression in viruses, procaryotes and eucaryotes. Three lecture hours.

568 Advanced Techniques in Molecular Biology (4)
Prerequisites: BIOL 283, BIOL 311, CHEM 213-214, CHEM 461-462 or permission of instructor. Recommended: BIOL 281. An in-depth study of the methods for the separation, analysis and characterization of biologically important compounds. The course is designed to provide graduate students with the training necessary for research in molecular biology.

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.

591 Current Topics in Biology (1)
One seminar hour each week. May be repeated for credit.

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 and Chairman, Department of Biology. 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.
Business Administration

Dean: Lloyd M. DeBoer
Graduate Program: Frederick H. Siff

Faculty
Professors: DeBoer, Tongren
Associate Professors: Cloyd, English, Floyd, Marchione, Siff, Steinhauser
Assistant Professors: Baum, Bhanos, Bjorklund, M. Bodur, Brooks, Enrikin, Gunther, Hysom, Johnston, Kovach, Martin, Mietus, Rich, D. Oblik, M. Oblik, Sands
Lecturers: Dunn, Hazlett, Hurta, Kevorkian, Meares, Palmer, Patterson, Rahn, Rosenbaum, Ruth, Wenker

Master of Business Administration
The MBA program is designed to provide an advanced level of professional education in the several functional areas of business administration. The program is designed to serve:
1. Individuals who have recently earned the baccalaureate degree in business administration and wish to continue their education at the master’s level.
2. Individuals who have recently earned the baccalaureate degree in a discipline other than business administration and wish to develop master’s level skills in business administration.
3. Persons employed in business and government who hope to further their professional careers by earning an advanced degree in business administration.
4. Students who intend to continue toward the DBA or PhD degree at some other institution.

The MBA program has a broad, integrated curriculum designed to promote both understanding of the major functional areas of business enterprise and an opportunity for in-depth specialization in one of several specialty areas offered. The program may be completed with part-time study and all courses are offered in the evening. The MBA program involves between 36 and 57 semester-hours of graduate coursework. The exact number of credit hours for an individual is based on an evaluation by the applicant’s prior academic background; this is decided upon admission to the MBA program.

The admissions decision is based upon: grades in prior academic coursework; performance on the GMAT; recommendations; other professional and personal qualifications, with work experience considered an important variable in the admissions process.

MBA Degree Requirements
A candidate must fulfill the degree requirements of the Graduate School and the following particular academic requirements of the MBA program:

1. **Foundation.** Each candidate must have completed the coursework identified in the foundation courses listed below. These courses provide a common body of knowledge for students wishing to pursue graduate work at the MBA level. There are 21 hours of graduate foundation coursework. Some of these may be satisfied by academic coursework in the student’s background; this is decided upon admission to the MBA program, as described in item (3) in the Entrance Requirements Section above. Normally, an undergraduate degree in business administration will fulfill all foundation course requirements.

The foundation courses are:
- BUAD 500 Accounting and Reporting 3
- BUAD 510 Financial Management 3
- BUAD 520 Marketing Concepts and Processes 3
- BUAD 530 Legal Concepts and Trends Affecting Business 3
- BUAD 540 Management Theory and Practice 3
- BUAD 550 Statistical Foundations for Business Decision Making 3
- ECON 502 Economic Analysis (offered by the Economics Department) 3

Completion of all foundation coursework is prerequisite to courses at the next level, the MBA core.

2. **MBA Core.** Each candidate must complete the following MBA core courses unless, in the opinion of the School of Business Administration, the candidate has had equivalent work at the graduate level elsewhere:
- BUAD 501 Managerial Accounting 3
- BUAD 511 Cases in Financial Administration 3
- BUAD 521 Cases in Managerial Marketing 3
- BUAD 531 Computer Systems for Management 3
- BUAD 551 Quantitative Methods of Managerial Analysis 3
- BUAD 591 Cases in Organizational Behavior 3
- BUAD 599 Business Policy 3

3. **Electives.** Electives provide the MBA student with the opportunity for limited specialization in one of several areas offered by the School of Business Administration. Each candidate must complete at least two graduate courses in one of the areas. Those currently available are:
- Accounting
  - Administrative Management
  - Financial Management
- International Business
  - Managerial Economics
  - Marketing Management and Research
  - Quantitative Methods

4. **Thesis or Coursework-Research Seminar Option.** Upon completion of the MBA core and specialty requirements, the
Undergraduate-Graduate Courses

A maximum of six semester-hours in approved undergraduate courses, taken after the student has been admitted to the MBA program, may be accepted in this program. The following courses in business administration have been approved for graduate credit. Course descriptions appear in the Undergraduate Catalog.

430 Operations Management (3)
447 Futures Markets (3)

Graduate Courses

500 Accounting and Reporting (3)
A study of all aspects of accounting from the basic concept of the transaction, through financial statements, into the interpretation of the statements.

501 Managerial Accounting (3)
The use of accounting data for corporate financial planning and control. Topics included are 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 divestitures, from viewpoint of profit planning, cash flow and tax deferral. Emphasis on tax problems of corporations. Lecture and discussion.

504 Corporate Financial Reporting (3)

505 Accounting Systems (3)
Prerequisite: BUAD 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: BUAD 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: BUAD 501. The study of the nature and scope of the controller's function in public or private organization, 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.

510 Financial Management (3)
Prerequisites: ECON 502, BUAD 500, BUAD 550. A study of the theory and techniques of financial management. Consideration is given to the management of working capital, the determination of the cost of capital and optimal financial structure, the capital budgeting process, and the overall integration of financial management to achieve a maximization of wealth decision criteria. Lecture, discussion and research.

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)

513 Real Estate Planning and Development Seminar (3)
Prerequisite: BUAD 344 or equivalent course. Consideration of the planning and evaluation process for the utilization of land resources by the private and public sectors. Research and discussion.
514 Capital Markets and Institutions (3) 
Structure, operations, regulations and economic significance of financial institutions including commercial and federal reserve banks, insurance companies, banks, investment companies and investment banks coupled with an in-depth analysis of the money and capital markets and the role of institutions within these markets. Research and discussion.

515 Mortgage Markets and Finance (3) 
Prerequisite: BUAD 510. This is a course in mortgage banking with special emphasis on the primary and secondary mortgage markets, mortgage instruments and the financial environment and techniques of financing real estate of all kinds.

516 Real Estate Investment Analysis (3) 
Prerequisite: BUAD 510. The course is designed to improve the understanding of the real estate investment decision-making process and the various skills required to function effectively in this investment environment.

517 Portfolio Analysis (3) 
Prerequisites: BUAD 510 and BUAD 550. Examination of the theory and mathematical techniques utilized in the management of investment portfolios. Lecture, discussion and research.

519 Current Topics in Finance (3) 
Prerequisite: BUAD 511. Topics of current or recent interest in the area of finance, including industrial, governmental, international or institutional applications. Primary emphasis upon techniques and methods of financial practice and influences of new legislation. Readings, discussion, case studies, and research.

520 Marketing Concepts and Processes (3) 
Prerequisites: ECON 502, BUAD 500 or equivalent. A combination of text, cases and discussion to provide the background and tools for decision-making in the marketing areas of product development, pricing, promotion and physical distribution. Emphasis on the analysis of marketing situations and on data-based decision-making.

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) 
Prerequisite: BUAD 521. Selected problems in contemporary marketing. Developing new market segments, independent research projects and computer marketing games. Lecture, discussion, and laboratory.

524 Promotional Strategy in Marketing (3) 
Prerequisite: BUAD 521. An examination of the several types of promotion activities as applied to both profit and non-profit organizations. The approach is to develop basic issues in promotional strategy, then to focus on managerial issues and problems as encountered by promotion executives.

525 Analytical Marketing (3) 
Prerequisites: BUAD 521 and 551. An investigation into the structure of representative marketing models to determine the critical factors in their design and application, and to assess their adequacy in helping to solve marketing problems. Research, lecture, and laboratory.

526 Advanced Consumer Behavior (3) 
Prerequisite: BUAD 521. The application of behavior theory to consumers of goods and services, and the relationship of this theory to one or more behavior models. Research in practical applications.

530 Legal Concepts and Trends Affecting Business (3) 
Presentation of principles necessary for comprehension of legal concepts affecting a business environment. Special emphasis will be placed on contracts including the Uniform Commercial Code and business organizations including corporations, partnerships, liability and government regulation.

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.

532 Computer Based Information Systems (3) 
Prerequisites: BUAD 501, 531 and 551. This course examines the organization, development, evaluation and management of computer based information systems from the perspective of both users and developers. The knowledge of computer capabilities and of the information processing needs in different practical areas of business is integrated. A term project involving one of the phases of analysis/design, implementation or evaluation of a management information is required. Lecture, cases and discussion.

533 Management of the Computer Resource (3) 
Prerequisite: BUAD 531. Managerial involvement with the computer resource is examined from a variety of viewpoints from management of the facilities themselves, through higher level supervision via steering committee membership, to cooperation in the resource through the role of user. Case discussions are used to develop an understanding of the information needs necessary to manage the computer resource.

534 Analysis and Design of Computer Systems (3) 
Prerequisite: BUAD 531. A comprehensive coverage of the computer systems life cycle with emphasis on information requirements analysis, feasibility studies, system design, equipment selection, and the implementation process. Student teams will be assigned system development projects to work with users to define system requirements and to prepare implementation plans.

540 Management Theory and Practice (3) 
Development, theories and practice of business management. Particular emphasis will be given to the evolution of management theory and the application of current theoretical concepts to managerial operations. Implications of theory in practice will be explored.

541 Seminar in Personnel Administration (3) 

543 Organization Analysis and Development (3) 
Prerequisite: BUAD 591. Application of theory and research in the study of organizational effectiveness. Emphasis on the diagnosis of contributing factors; use of models; and the design and implementation of organization development programs. Readings, discussion, case development and research.

550 Statistical Foundation for Business Decision-Making (3) 
Prerequisites: Six credits of college mathematics IMATH 107, 108 is recommended. The use of statistical methods as scientific tools in the analysis of practical problems in business decision-making. Topics covered include: descriptive statistics; probability theory; probability distribution; sampling distribution; inference-estimation and hypothesis testing; elementary decision theory; time series analysis; linear regression and correlation; the analysis of variance.

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.

552 Management Science (3) 
Introduction to operations research techniques and their application to managerial decision-making. Computer simulation, Markov processes, queuing theory, inventory models, PERT and CPM, mathematical programming. Research, lecture, and laboratory.

553 Seminar in Applications of Management Science (3) 
Prerequisite: BUAD 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 applications; case analysis, research.

556 Computer Simulation (3) 
Prerequisites: BUAD 531 and 551 or equivalent. Computer simulation as a scientific methodology, emphasizing model development, implementation and analysis of results. Applications to such areas as corporate planning, operations analysis and numerical analysis. Project, lecture and laboratory.

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, cases, 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 or subsidiaries 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: BUAD 571. Analysis and discussion of problems in international business. Emphasis on international market entry and expansion; financial considerations in the international context; and operating policies and procedures of multi-national companies. Lecture, cases, and discussion.

591 Cases in Organizations and Leadership 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 discussion, readings, 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 beyond the foundation coursework. Examines entrepreneurial functions in business; determination of the field of business in which the firm will operate, its goals, corporate strategy to reach these goals, and major policies to implement the corporate strategy. Cases, readings, and discussion.

598 Seminar in Business Research (3)
Prerequisite: Completion of 30 graduate semester-hours beyond the foundation coursework. 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 his specialty area.

599 Thesis (6)
Prerequisite: Must have completed 30 hours of graduate coursework beyond the foundation.

Economics

Faculty
Professors: Snively (Chairman), Bloch, Phillips
Associate Professor: Bennett
Assistant Professors: Alford, Chung, Holden, M. Johnson, Pennington, Wiest (on leave)
Acting Assistant Professors: Anders, Mattes, Mayberry, Pupp, Rogowsky, Sutcliffe, Wells
Lecturers: Arafat, Barsby, T. Johnson, McElhone, McKelvey, Noller, Polk, Roberts, Rossiter, Rousslang, Singleton, Thorpe

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 public and private institutions that hire economists in the metropolitan area and elsewhere.
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 entrance requirements of the Graduate School, 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—to include intermediate macro and micro-economic analysis—taken without graduate credit. Before admission to degree status, a student must submit satisfactory Graduate Record Examination scores or hold a graduate degree in another field, or complete 6 to 12 hours of graduate coursework in non-degree status or Extended Studies enrollment with a grade point average of at least 3.0.

Departmental Degree Requirements
The student must meet all the degree requirements of the Graduate School. 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 ECON 501 and 513, or their equivalents. Those selecting the non-thesis option are required to take ECON 544: Econometrics I. 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 closely related courses open for graduate credit in other departments.

Departmental Course Prerequisites
ECON 306 and 311, or their equivalents, are prerequisites for all graduate courses except ECON 500 and 502. Additional prerequisites are noted for some courses. With the consent of the instructor prerequisites may be waived.
Graduate 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)
Theory of consumer behavior of consumers, firms and resource suppliers. Theories of choice under conditions of risk and uncertainty. Partial equilibrium analysis of competitive and non-competitive markets. General equilibrium analysis, welfare economics and introduction to capital theory.

502 Economic Analysis (3)
Prerequisite: Baccalaureate degree. This course cannot be taken for graduate credit toward the M.A. degree in economics. A rigorous, concentrated introduction to micro- and macroeconomic analysis. Emphasis will be placed on economic concepts, tools of analysis, and business applications.

505 Welfare Economics (3)
The topics covered include Pareto optimality, social welfare functions, the voting paradox, indivisibilities, consumer surplus, output and price policy in public enterprise. Qualifications of the basic welfare theorem caused by non-competitive 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
A survey of theories and policy issues in economic growth and technological change. Technological change will be considered at both the microeconomic and macroeconomic levels.

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.

522 Economics of Income Distribution (3)
Theoretical models of income distribution and determination. Examination of their empirical tests. Microeconomic functional income (shares to factors of production) and personal income (payments to individuals). Human capital, screening, education and family background critically emphasized. Macroeconomic income distribution theories (neo-classical, neo-Keynesian, and stochastic) discussed.

533 Public Finance (3)

534 State and Local Public Finance (3)
Analysis of public spending and taxation at the sub-federal level. Theory of public goods, positive and normative explanatory models of public expenditure determination and intergovernmental fiscal relations. Problems in the provision of specific state and local services including education, police and fire protection.

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

542 Mathematical Economics II (3)
Prerequisite: ECON 541, or permission of instructor. Mathematical treatment of economic theories. Static and dynamic analysis of macro-models. Input-output analysis. Optimization techniques such as Lagrangian multipliers, linear programming, non-linear programming and game theory. General equilibrium theory: existence, uniqueness, and stability.

544 Econometrics I (3)
Prerequisite: BUAD 261-262, or permission of instructor. 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)
Prerequisite: ECON 544, or permission of instructor. 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: ECON 501, or permission of instructor. 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 spatial 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 analysis of the 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.

565 American Economic History (3)
The growth and development of the American economy as well as the evolution of economic institutions are analyzed through the use of economic theory and statistics.

570 Industrial Organization and Public Policy (3)

571 Health Economics (3)
Economic analysis of major problems in the health care sector such as manpower substitution, malpractice, health insurance, hospital cost inflation, demand for medical care, regulation and licensure and the hospital as a non-profit institution. Economic principles will be applied to the allocation of resources in this sector of the economy.

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, constraint on oligopolistic pricing, vertical integration; traditional anti-trust 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 processes, the transportation model, pricing policies and congestion, transportation planning for the future, techniques of evaluation, environmental impact, socioeconomic 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.
Education

Faculty
Professors: Bowen (Chairman), Azarowicz, Gilstrap, Martin, Montebello, Schindler, Snyder
Associate Professors: Bindel, Carroll, Dobson, Duck, Dzama, Edgemon, Evans, Given, Gray, Hjermstad, Jacobs, Perkes, Schuchman, Smith
Assistant Professors: Chernay, Doebler, Sears, Seligman, Snoddy (on leave)

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 and Supervision, Secondary Education, and Special Education.

Students holding the baccalaureate degree who wish to take courses toward teacher certification should apply for non-degree status in the Graduate School. For additional information contact the Department of Education.

Program Approval and Accreditation. All of the graduate programs listed above have been approved by the State Department of Education, and are accredited by the Southern Association of Colleges and Schools, and by the National Council for the Accreditation of Teacher Education (NCATE).

Departmental Entrance Requirements
In addition to fulfilling the entrance requirements of the Graduate School, 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 because of low grade point averages normally will be required to reach the necessary grade point average by taking courses in Areas I, II, and III of the program before being considered for admission as degree students.

Departmental Degree Requirements
In addition to fulfilling the degree requirements of the Graduate School the candidate must:
1. Complete at least one course in each of the two foundations areas and at least one course in the research area. Each student with his adviser should select courses which will broaden knowledge in those fields upon which professional school activities are based. In general, the following outline may serve as a guide to selections. (Please note that persons other than those preparing for positions in elementary and secondary schools may arrange with advisers for foundations courses not directly related to education.)
   Area I, Historical, Philosophical, Sociological Foundations: EDUC 501, 502, 503, or 505.
   Area II, Psychological Foundations: EDUC 525, 526, 527, or 533 (Special Education students should refer to program description for specific requirements in this area.)
   Area III, Research: EDUC 590 or 591
2. Complete the number of semester-hours required for the graduate program in which enrolled.
3. Pass a comprehensive examination covering the graduate program in which enrolled. The comprehensive examination at
the conclusion of each student’s program will be broadly conceived. Therefore, the student should support with independent reading those areas not chosen for coursework.

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:

EDUC 590, 591 and 599.

Program Requirements

It is each student’s responsibility to be aware of all requirements and to develop with the assigned adviser a program which will meet the requirements. The program should be developed as soon as possible after the student is admitted to degree status. The typical programs which appear for each degree are offered as examples. There is considerable flexibility as each student’s personal program is developed within the indicated guidelines.

The following programs require a practicum or internship: Guidance and Counseling, Reading, School Administration and Supervision, and Special Education. Students should apply for practicum or internship one semester prior to enrollment and observe the following application deadlines:

- May 1 for Fall semester
- October 1 for Spring semester
- March 1 for Summer session

Forms are available in the Office of Field Experiences, Room 3335 Robinson Hall.

Elementary Education

The Master of Education Program in Elementary Education is designed to improve the competence of teachers working with children at the pre-elementary, lower elementary, and upper elementary levels.

Entrance Requirements

Students preparing for the pre-elementary specialization (infancy-kindergarten) must:

1. Possess a baccalaureate degree.
2. Submit evidence of three years of acceptable teaching or administrative experience in a pre-school or elementary school program. (This requirement would be waived for students who can provide evidence of certification at the Collegiate Professional level in elementary education by the State of Virginia or another jurisdiction.)
3. Submit recommendations by three persons qualified to judge professional competence.

Students preparing for the elementary specialization must:

1. Provide evidence of certification at the Collegiate Professional level in elementary education by the State of Virginia or another acceptable jurisdiction.
2. Submit recommendations by three persons qualified to judge professional competence.

Degree Requirements

In addition to the Departmental Degree Requirements listed on page 43, students must complete 15 hours of core courses and from 6-12 hours in an area of specialization; and elective coursework to meet the degree total of 36 semester-hours. Students will be required to take as the basic concentration EDUC 528, 531, 536, 636 and 637. In addition, students will take one of the following specializations:

- Elementary School Guidance and Counseling Specialization—EDUC 538 and 639A
- Secondary School Guidance and Counseling Specialization—EDUC 539 and 639B
- Higher Education Guidance and Counseling Specialization—EDUC 544, 546, 548 and 639C
- Community Agency Guidance and Counseling Specialization—EDUC 540, 541 and 639D

Sample Program

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Guidance and Counseling

The Master of Education Program in Guidance and Counseling is designed to prepare students to function as counselors and personnel specialists in a variety of work settings, including elementary and secondary schools, colleges and agencies.

Entrance Requirements

Students must satisfy entrance requirements under either 1 or 2 below.

1. Students preparing for elementary or secondary school guidance and counseling must:
   a. Provide evidence of certification at the Collegiate Professional level by the State of Virginia or another acceptable jurisdiction.
   b. Have completed one year of successful teaching experience at the level where qualification is desired.
   c. 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.
   d. Be interviewed and recommended for acceptance.

2. Students preparing for counseling and personnel work in colleges and other agencies must:
   a. Possess a baccalaureate degree.
   b. 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.)
   c. Submit three letters of recommendation concerning promise as a professional counselor or personnel specialist.
   d. Be interviewed and recommended for acceptance.

Departmental Degree Requirements

In addition to the requirements on page 43, students must complete 15 hours of core courses and from 6-12 hours in an area of specialization; and elective coursework to meet the degree total of 36 semester-hours. Students will be required to take as the basic concentration EDUC 528, 531, 536, 636 and 637. In addition, students will take one of the following specializations:

- Elementary School Guidance and Counseling Specialization—EDUC 538 and 639A
- Secondary School Guidance and Counseling Specialization—EDUC 539 and 639B
- Higher Education Guidance and Counseling Specialization—EDUC 544, 546, 548 and 639C
- Community Agency Guidance and Counseling Specialization—EDUC 540, 541 and 639D

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</table>
Reading
The Master of Education Program in Reading is designed to permit qualified individuals to become reading specialists at the elementary or secondary 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.

Degree Requirements
In addition to the requirements on page 43, students must complete another three semester-hours in research and 21 semester-hours in reading, to meet the degree total of 33 semester-hours. Normally, students are required to take EDUC 559 and/or 604; 601 or 602; 603, 605 or 607; 608 (6), or 608 (3) and 609 (3).

Sample Program
Courses                                      Semester Hours
Historical, Philosophical, and               3
Sociological Foundations                     Research
Psychological Foundations                     6
Program Requirements                          3
Total                                         33

School Administration and Supervision
The Master of Education Program in School Administration and Supervision is designed to enable qualified individuals to prepare for positions of leadership in individual schools and school systems.

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.

Degree Requirements
In addition to the requirements on page 43, students must take at least one course in each of the following:
1. Elementary, Middle School, or Secondary School Curriculum.
2. School Administration.
3. Supervision of Instruction.
4. EDUC 585: Seminar in School Administration and Supervision.
5. EDUC 580: Practicum in School Administration and Supervision.

Approved electives bring the degree total to a minimum of 30 semester-hours. (In most cases the approved electives will be used to meet requirements for endorsement in Virginia.)

Sample Program
Courses                                      Semester-Hours
Historical, Philosophical or                3
Sociological Foundations                     Research
Psychological Foundations                     3
Program Requirements                          3
Approved Electives                           15-18
Total                                         6

Secondary Education
The Master of Education Program in Secondary Education 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.

Degree Requirements
In addition to the requirements on page 43, students must complete at least 9 semester hours of courses in the teaching field or in a related discipline; EDUC 551 and 583; and one of the following as related to the teaching field: EDUC 565, 567, 568, 569, 572, 573 or 604. Approved electives bring the total to 30 semester hours.

Sample Program
Courses                                      Semester Hours
Historical, Philosophical, or                3
Sociological Foundations                     Research
Psychological Foundations                     3
Program Requirements                          3
Total                                         18

Special Education
The Master of Education Program in Special Education is designed to enable qualified individuals to become specialists in:
1. General Special Education (emotional disturbance—ED; learning disabilities—LD; or mental retardation—MR) or
2. Education of the Severely Handicapped (early childhood handicapped—ECH; ages two to eight years; or severely multi-handicapped—SMH)

Entrance Requirements
To be accepted as a degree student, each applicant must:
1. Submit recommendations by three persons qualified to judge professional competence.
2. Be interviewed and recommended for acceptance.
3. Submit a written autobiography (request details during interview).
4. a. For General Special Education applicants must:
   i. have Virginia Collegiate Professional certification or the equivalent from another state.
   ii. complete or have completed one course in each of the following:
      teaching of reading,
      teaching of mathematics,
      human growth and development, and
      tests and measurements.
   b. For Education of the Severely Handicapped, applicants must:
      i. provide evidence of successful completion of a baccalaureate degree in a human services area, such as education, psychology, sociology, or allied health services, and
      ii. provide evidence of work related experience with severely handicapped individuals
      iii. and, if preparing for endorsement in early childhood handicapped, have Virginia Collegiate Professional certifi-
culation or the equivalent from another state and two years of teaching experience under that endorsement.

Degree Requirements
In addition to the requirements on page 43, students must complete 12-18 hours of core courses and 9-15 hours in an area of specialization. (Additional coursework may be necessary if it is determined that a student lacks needed competencies.) General foundations courses common to all special education areas of emphasis are EDUC 590 and either 501, 502 503, or 505. The psychological foundations course required in General Special Education is EDUC 526, while EDUC 525 is required in Education of the Severely Handicapped.

The General Special Education (ED, LD, MR) core courses are EDUC 652, 601, 653, and 656. Courses in the specialization areas are:
1. Emotional Disturbance—EDUC 657, 651, 647, and 650A
2. Learning Disabilities—EDUC 651; 648; 659 or 657; and 650B
3. Mental Retardation—EDUC 649; 657 or 651; 533 or 564; and 650C

The Education of the Severely Handicapped (ECH, SMH) core courses are EDUC 652, 662, 659, 663, 656, and 664. Courses in the specialization areas are:
1. Early Childhood Handicapped—EDUC 660 and 650D
2. Severely Multi-Handicapped—EDUC 661 and 650E.

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<td>Program Requirements</td>
<td>27</td>
</tr>
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</table>

Total: 36

Graduate Courses
Prerequisites: All graduate education courses, unless exception is indicated, have the following 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 (1, 2, 3, 4, 5, 6)
Prerequisites: Employment in professional capacity by sponsoring division or agency. Offered at request of school division or other educational agency. Content varies. May be repeated. No more than six semester-hours of EDUC 500 and/or 600 may be applied to degree credit.

501 History of Education in Western Culture (3)
A critical historical analysis of old world backgrounds influencing education in the United States.

502 History of Education in America (3)
An examination of the development of the American education system.

503 Philosophy of Education (3)
A critical examination of selected ancient and contemporary philosophies and their impact upon educational thought and practice.

505 Social Problems in Education (3)
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)
The principles, philosophy, practices and agencies involved in developing and maintaining desirable relationships between schools and the communities they serve.

508 Human Relations for Educators (3)
This course seeks to enable students to develop greater understanding of self as an individual and of self as part of various social systems; greater competence in facilitating communication; skills for utilizing and creating exercises for personalizing education; and greater competence in dealing with persons of other racial or ethnic groups.

511 Preparing the Pre-Elementary Environment (3)
An advanced course in the general procedures, materials and organization of environments for young children (infancy-kindergarten). Field experiences will be required for students without previous teaching or administrative experience at the pre-elementary levels.

512 Home-School Relations in Pre-Elementary Education (3)
An examination of the patterns and problems of family life for the purpose of improving communication between teachers and parents of young children.

513 Play as a Growth Process in Pre-Elementary Education (3)
Play will be viewed as an approach to teaching and learning. The play process will be examined as an intellectual, social and emotional function in children’s development. Play will be studied as an effective means of facilitating the growth of young children. Teachers will learn skills that will be applicable to the classroom.

518 Introduction to Multicultural Education (3)
A survey of multicultural education which examines problems faced by an individual in an alien culture, theories of multicultural/bilingual education, relationships between nonverbal communication and language systems, and interpersonal skills needed for encouraging harmony between our dominant culture and minority ethnic communities.

525 Advanced Human Growth and Development (3)
An advanced course relating to human development through the life span including the development of the child through education, the unfoldng of human abilities in terms of personal adjustment and achievement.

526 Advanced Educational Psychology (3)
An advanced course relating to learning theory, motivation, personality development, social and emotional behavior and student attitudes.

527 Evaluation of Student Progress (3)
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)
Prerequisites: EDUC 636. Includes interaction 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 to practice.

531 Educational and Psychological Measurement (3)
Techniques and principles used in the construction, administration, and quantification of measuring devices for evaluation purposes; interpretation of standardized tests of ability, aptitude, achievement, interest and personality.

533 Mental Health in the School Program (3)
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.

536 Analysis of the Individual (3)
Prerequisite: EDUC 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.

538 Theories, Principles, and Practices of Guidance in the Elementary School (3)
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.

539 Principles and Practices of Guidance (3)
An introductory survey of guidance in the school: definitions, scope, principles, historical background, organization, service, emerging trends and issues.

540 Guidance and Counseling in the Community Agency (3)
Study of guidance and counseling services within community agencies. Emphasis will be placed on the types of services and facilities provided, needs and problems of the client population served, role and function of the counselor or guidance worker in the particular setting, and personnel needs of the individual agency.

541 Case Studies in Agency Counseling (3)
Prerequisite: EDUC 636. By using actual and hypothetical cases the course will help the student develop written plans and simulate implementation for overall treatment of agency clients and their families.

544 College Student Personnel Work (3)
The introductory course for students interested in entering student personnel work at the college level. The study of theory, nature, and background of student personnel work in higher education. Structure, organization and administration of services and programs.

546 College Students and Campus Groups (3)
Prerequisite: EDUC 544. Study of the nature, characteristics and needs of college students as they interact in groups which form student subcultures on campus. Analysis of college student development programs which relate to campus groups, group activities and development of student leadership.

548 Seminar in College Student Personnel Work (3)
Prerequisites: EDUC 544 and 546. Current social and legal issues in college student personnel work including professional ethics and standards. Role
of counseling, consulting, and collaboration with students and other educators in efforts to facilitate student development and self-direction.  

549 Curriculum and Instruction in the Middle School (3)  
Development of curriculum in the middle school grades; historical backgrounds, present programs, development and implementation of new programs, program evaluation, normative and organizational implications.  

550 Curriculum Development in the Elementary School (3)  
Development of the curriculum in the pre-elementary, lower elementary and upper elementary levels, historical backgrounds, present programs, development of new programs, methods of implementing new programs and evaluative methods and procedures.  

551 Curriculum Development in the Secondary School (3)  
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.  

552 Supervision of Instruction (3)  
Prerequisites: Teaching experience and EDUC 549, 550, or 551. Basic principles and practices of instructional supervision. Elementary, middle and high school specialization may be accomplished through options in reading and project assignments.  

555 School Administration (3)  
Prerequisite: Teaching experience. Basic principles and practices of school organization and administration. Emphasis on elementary, middle and high schools with reference to state and district structures.  

557 Teaching Language Arts in the Elementary School (3)  
Study of methods, curricula, current issues and research literature in English-language arts programs of the elementary school. Emphasis will be placed on recent innovations in methodology and the traditional concerns of the communication arts.  

558 Teaching Social Studies in the Elementary School (3)  
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.  

559 Teaching Developmental Reading in the Elementary School (3)  
An advanced course covering the foundations of reading; principles, techniques, and materials for developmental reading programs in the elementary grades.  

560 The Diagnostic Teaching of Reading in the Elementary School (3)  
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. Primarily designed for classroom teachers.  

561 Literature in the Elementary School (3)  
Prerequisite: A basic course in children's literature. An advanced course relating to children's literature.  

562 Teaching Music in the Elementary School (3)  
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.  

563 Teaching Science in the Elementary School (3)  
Prerequisite: A basic course in teaching science in the elementary school. An advanced course in the subject matter, methodology and materials involved in the teaching of physics and chemistry to elementary school children.  

564 Teaching Art in the Elementary School (3)  
Prerequisite: A basic course in art for the elementary school teacher. 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)  
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.  

566 Teaching Mathematics in the Elementary School (3)  
Study of the curricula, current issues, and research literature in elementary school mathematics. Analysis of current methodologies and goals of mathematics at the elementary school level. Emphasis will be placed on the development of different styles of teaching.  

567 Teaching Social Studies in the Secondary School (3)  
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.  

568 Teaching Language Arts in the Secondary School (3)  
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 school.  

570 School Law (3)  
This course is designed to provide the background in school law needed by school administrators, supervisors, counselors and others.  

572 Teaching Mathematics in the Secondary School (3)  
Study of the curricula, current issues and research literature in secondary school mathematics. Analysis of current methodologies and goals of mathematics education in secondary schools. Emphasis will be placed on the development of different styles of teaching.  

573 Teaching Science in the Secondary School (3)  
An advanced course in the methods, materials, content and organization of science programs. Emphasis on curriculum planning, current methodologies and trends in science education in secondary schools.  

575 Internship in Lower Elementary Teaching (6)  
Prerequisites: Admission to preparation phase of program and certification requirements except for internship, or permission of the Department. Open only to students already enrolled in this program. A full-time program of observation, teaching and participation in school activities conducted in a public school.  

576 Internship in Upper Elementary Teaching (6)  
Prerequisites: Same as 575. A full-time program of observation, teaching and participation in school activities conducted in a public school.  

577 Internship in Secondary School Teaching (6)  
Prerequisites: Same as 575. A full-time program of observation, teaching and participation in school activities conducted in a public school.  

580 Practicum in School Administration and Supervision (3 or 6)  
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 program.  

582 Seminar in Pre-Elementary and Elementary School Teaching (3)  
Prerequisite: Student must have completed graduate program except for seminar, or be in final semester of program, or permission of Department. Application of graduate coursework to instructional situations through discussion, projects and reports related to practice and/or research.  

583 Seminar in Elementary School Teaching (3)  
Prerequisite: Student must have completed graduate program except for seminar, or be in final semester of program, or permission of Department. Application of graduate coursework to instructional situations through discussion, projects and reports related to practice and/or research.  

585 Seminar in School Leadership (3)  
Prerequisites: EDUC 549, 550, or 551; 552; and 555; admission to the degree program in school administration and supervision, or permission of the Department. Advanced study in school leadership for the evaluation and facilitation of instruction. Emphasis will be placed on individual and group processes in supervision. Field experiences required.  

590 Educational Research (3)  
Development of skills, insights and understandings basic to performing research, with major emphasis, however, on interpretation and application of research results. The primary focus is on critique of research and use of findings in educational settings.  

591 Educational Statistics (3)  
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.  

592 Problem (3)  
Prerequisite: EDUC 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.  

594 Special Topics (3)  
Prerequisites: Admission to a degree program and completion of 9 semester hours of course work for graduate credit. By arrangement. May be repeated. Various subjects, principally by directed study, discussion, and research.  

599 Thesis (6)  
Prerequisites: EDUC 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.  

600 Workshop in Education (1, 2, 3, 4, 5, 6)  
Concentrated full-time workshops, weekend seminars and workshops dealing with selected topics in education, education tour seminars, etc. May be repeated. No more than six semester hours of EDUC 500 and/or 600 may be applied to degree credit.  

601 Remedial Reading (1-3)  
Prerequisite: EDUC 559 or 604. Nature and cause of reading difficulties; organization of remedial reading programs; use of remedial techniques, teacher aids and learning centers, psychological and health services and innovative methods and materials.
602 Physical and Psychological Factors in Reading (3)
Prerequisite: EDUC 559 or 604. 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)
Prerequisites: Admission to graduate program in reading, EDUC 601 or 602, and EDUC 531 or 591. 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.

604 Teaching Reading in the Secondary School (3)
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 in Multicultural/Multilingual Settings (3)
A course designed to develop competencies in reading methods for students from multicultural or multilingual backgrounds. Emphasis will be placed on increasing the teacher's knowledge and understanding related to effective reading instruction for all learners. Particular emphasis will be placed on issues, 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)
Prerequisite: EDUC 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)
Prerequisites: Admission to and completion of graduate program in reading except for practicum or enrollment in final semester of program. Supervised practice in the Educational Child/Youth Study Center: work with individuals and small groups using a variety of reading procedures. Participation in scheduled group sessions required.

609 Internship in Reading (3)
Prerequisites: Admission to and completion of graduate program in reading except for practicum or enrollment in final semester of program. A program of supervised teaching and participation as a reading specialist in a public school system. Participation in scheduled group sessions required.

625 Utilization of Instructional Technology (3)
A consideration of the effective utilization of educational technology in the teaching-learning situation.

636 Counseling Theory and Practice (3)
Prerequisites: EDUC 525 or 526. A study of the basic theories, principles, and techniques of counseling and their applications to counseling settings.

637 Career and Educational Counseling (3)
Prerequisites: EDUC 531, 536, and 636. Vocational choice theory, sources of occupational and educational information, approaches to career decision-making processes, and career development exploration techniques.

638 Organization and Administration of a Guidance Program (3)
Prerequisite: EDUC 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.

639 Practicum in Guidance and Counseling (3)
A. Elementary; B. Secondary; C. Higher Education; D. Agency
Prerequisites: Admission to and completion of graduate program except for practicum, and permission of program coordinator. Supervised practice in and 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.)

647 Curriculum and Methods—Emotionally Disturbed (3)
Prerequisite: EDUC 652; 657. Study of the teacher's role in providing curricular and instructional approaches for developing academic skills and modifying behavior disorders. Emphasis on individualized programming procedures and classroom management techniques. Laboratory experience required.

648 Curriculum and Methods—Learning Disabilities (3)
Prerequisite: EDUC 651. Study of individualized educational programming procedures for children experiencing receptive, integrative and/or expressive learning disabilities. Laboratory experience required.

649 Curriculum and Methods—Mental Retardation (3)
Prerequisite: EDUC 652. Study of educational programming for the mentally retarded: design, implementation and evaluation of current programs and procedures which promote the behavioral and academic achievement of mentally retarded individuals to their highest potential. Laboratory experience required.

650 Internship in Special Education (3 or 6)
A. Emotionally Disturbed; B. Learning Disabilities; C. Mentally Retarded; D. Early Childhood Handicapped; E. Severely Multi-Handicapped
Prerequisite: Admission to program, completion of all coursework in the area of specialization and permission of program coordinator. Supervised internship includes the design and implementation of educational programming for handicapped youngsters in a public school system, approved private school, hospital, or clinic. This course serves as a culminating experience for students who have completed all coursework in the area of specialization. Participation in scheduled group sessions required.

651 Educational Considerations of Learning Problems (3)
Prerequisite: EDUC 652 or permission of Department. Study of medical and behavioral characteristics of individuals experiencing receptive, integrative, and/or expressive learning disabilities. Implications for educational intervention are introduced. Field experiences required.

652 Survey of Special Education (3)
A comprehensive overview of exceptional individuals. Emphasis is on historical developments of definitions, characteristics, identification and incidence and legislation. This course serves as a foundation for students of special education. Field observations required.

653 Teaching Remedial Mathematics (3)
Study of techniques for assessing and remediating difficulties in mathematics. Laboratory experience required.

654 Characteristics and Identification of Gifted (3)
Study of characteristics associated with gifted and talented youngsters. Techniques and procedures for identification emphasized. Laboratory experience may be required.

655 Curriculum and Methods—Gifted and Talented (3)
Study of teaching the gifted and talented with emphasis upon cognitive styles, strategies for developing creative thinking, and curriculum content modification. Laboratory experience required.

656 Psychoeducational Assessment in Special Education (3)
Prerequisite: A basic course in tests and measurement; EDUC 652; and EDUC 561, 567, 564, or 662. Administration, scoring and interpretation of a wide range of formal and informal education evaluation instruments with emphasis on the generated educational plan and written report. Laboratory experience required.

657 Emotional and Behavioral Disorders of Children (3)
Prerequisite: EDUC 652 or permission of Department. In-depth study of characteristics of individuals experiencing emotional and/or psychological disturbance. Implications for educational intervention are introduced. Field experiences required.

658 Socialization of the Handicapped in Regular Education (3)
Survey of management/discipline theory and related socialization intervention techniques specifically applied to handicapped children and youth who are enrolled in regular education. Students will apply classroom management interventions in simulated and/or actual situations. Laboratory experiences may be required.

659 Language Development and Disorders (3)
Influence of conflicting theories concerning language acquisition; analysis of verbal and nonverbal communication; techniques of language assessment; and strategies for language intervention.

660 Curriculum and Methods—Early Childhood (3)
Prerequisite: EDUC 525, 652, 662 or permission of Department. Emphasis placed on planning, organizing and implementing educational programs for handicapped children ages two to eight years. Students are required to develop curricula designed for children having specific handicapping conditions. Focuses on strategies for developing skills of daily living and communicating educational plans to others. Laboratory/field experience required.

661 Curriculum and Methods—Severely Multi-Handicapped (3)
Prerequisite: EDUC 525, 652 and 662 or permission of Department. Emphasis on recognition of influence of handicapping conditions on learning processes and socialization; formulation, implementation and evaluation of individualized educational programs for children having specific handicapping conditions; focus on development of self-care and educational skills of daily living. Laboratory field experience required.

662 Medical and Health Aspects of Handicapping Conditions (3)
Prerequisite: EDUC 525 or 525 or permission of Department. The nature and causes of disabling and/or special health conditions. Exploration of screening and evaluation techniques, treatment goals and intervention procedures. Focuses on educational implications.

663 Precision Teaching for the Severely Handicapped (3)
Prerequisite: EDUC 652, 662, or permission of Department. A course in applied behavioral analysis for instruction of the severely handicapped. A task analysis approach to developing individual instructional programs for
basic behavior control, self-help and pre-academic skills. Field experience required.

664 Seminar in Special Education: Severely Handicapped (3)
Corequisite: EDUC 650D or 650E or permission of Department. Means of effective communication with parents, referral agencies and non-school groups; informational skills concerning special education program administration; and other issues arising from the on-going internship experiences.

Supporting Courses in Teaching Fields
The 500 level graduate courses in American Studies, Biology, Business Administration, Chemistry, Economics, English, French, Government, History, Mathematics, Physics, Public Administration, and Spanish provide the subject matter for students seeking a master's degree in secondary education with an emphasis in these fields. In addition, certain undergraduate-graduate courses have been approved by the Graduate Council as acceptable for graduate credit. See page 28 and departmental listings for further information.

English

Faculty
Professors: Sundell (Chairman), Baxter, S. Brown, Garson, Gras, Jackson, Molin, Walls
Associate Professors: L. Brown, Karlson, Keith, Kelley, Radner
Assistant Professors: Acharya, Bergmann, Bjarkman, Brunette, Eisner, Foreman, Gallehr, Grossberg, Keaney, Kuebrich, Nadeau, O'Connor, Owens, Palmieri, Rutledge, Story, Thaiss, Walowit
Visiting Professors: Dickey, Gardner

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 entrance requirements of the Graduate School. 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 degree requirements of the Graduate School, candidates must satisfy the following departmental requirements:

1. Complete 30 semester-hours of credit in graduate English courses. 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 ENGL 501 (Literary Scholarship) normally in the first 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 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 adviser.
Graduate 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 Literary Theory and Criticism (3)
The major theories of literature and methods of analyzing and evaluating literary works. Specific content will vary and will be announced before registration. This course may be repeated for credit with the permission of the Department. Past offerings are listed below:

505A From Matthew Arnold to the Present
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 the 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.

517 The Writing of Non-Fiction (3)
The writing of original essays, biographies, documentaries, reports, and other forms of non-fiction.

518 Creative Writing (3)
The writing of original poetry, fiction, and drama.

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 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 Studies in English Medieval Literature (3)
Selected literary authors, works, or movements, generally excluding Chaucer, from between 1300 and 1500, studied in Middle English. Specific content will vary from semester to semester and will be announced before registration. This course may be repeated for credit with the permission of the Department. Past offerings are listed below:

525A Middle English Lai and Romance
525B Medieval Drama

530 Studies in English Renaissance Literature (3)
Selected literary authors, works, or movements, generally excluding Shakespeare and Milton, of the English Renaissance. Specific content will vary from semester to semester and will be announced before registration. This course may be repeated for credit with the permission of the Department. Past offerings are listed below:

530A Renaissance Tragedy
530B The Pastoral Tradition
530C Seventeenth-Century Prose
530D Mixed Forms in Renaissance Drama

535 Studies in Eighteenth-Century English Literature (3)
Selected English literary authors, works, or movements of the eighteenth century. Specific content will vary from semester to semester and will be announced before registration. This course may be repeated for credit with the permission of the Department. Past offerings are listed below:

535A Sexual Motifs in Eighteenth-Century Poetry, Prose, and Drama
535B Education and Self-Realization in Eighteenth-Century Literature
535C The Augustan Age
535D Johnson and His Circle

540 Studies in Nineteenth-Century English Literature (3)
Selected English literary authors, works, or movements of the nineteenth century. Specific content will vary from semester to semester and will be announced before registration. This course may be repeated for credit with the permission of the Department. Past offerings are listed below:

540A Major Victorian Poets
540B The Byronic Mode
540C Novels of Maturation
540D The Morality of Sin
540E The Victorian Novel
540F Romantic Visionary Poems

545 Studies in Twentieth-Century English Literature (3)
Selected English literary authors, works, or movements of the twentieth century. Specific content will vary from semester to semester and will be announced before registration. This course may be repeated for credit with the permission of the Department. Past offerings are listed below:

545A The "Theatre of Cruelty" in Recent British Drama
545B Developments Since World War II in English Literature
545C Contemporary English Drama

550 Studies in Seventeenth- and Eighteenth-Century American Literature (3)
Selected literary authors, works, or movements of colonial and early federalist America. Specific content will vary from semester to semester and will be announced before registration. This course may be repeated for credit with the permission of the Department.

555 Studies in Nineteenth-Century American Literature (3)
Selected American literary authors, works, or movements of the nineteenth century. Specific content will vary from semester to semester and will be announced before registration. This course may be repeated for credit with the permission of the Department. Past offerings are listed below:

555A The American Renaissance
555B The Early American Novel
555C The Development of the American Novel: 1865-1914

560 Studies in Twentieth-Century American Literature (3)
Selected American literary authors, works, or movements of the twentieth century. Specific content will vary from semester to semester and will be announced before registration. This course may be repeated for credit with the permission of the Department. Past offerings are listed below:

560A Literature of the Twenties
560B American Drama of the Thirties
560C The American Naturalistic Novel
560D Contemporary American Experimental Fiction
560E American Social Drama of the Twenties and Thirties

565 Seminar in Shakespeare (3)
Intensive study of the achievement of Shakespeare and the major critical approaches to this work. This course may be repeated for credit with the permission of the Department. Past offerings are listed below:

565A Shakespeare's Comedies and Histories
565B Shakespeare's Tragedies and Romances

570 Seminar in Major Figures of English Literature Before 1800 (3)
Intensive study of the work of one or two major figures of English Literature before 1800. Specific content will vary from semester to semester and will be announced before registration. This course may be repeated for credit with the permission of the Department. Past offerings are listed below:

570A Milton
570B Donne (Not open to students who have taken 570E)
570C Blake
570D Chaucer
570E Donne and Herbert (Not open to students who have taken 570B)

575 Seminar in Major Figures of English Literature After 1800 (3)
Intensive study of one or two major figures of English Literature after 1800. Specific content will vary from semester to semester and will be announced before registration. This course may be repeated for credit with the permission of the Department. Past offerings are listed below:

575A Wordsworth
575B Keats
575C Joyce
575D Lawrence and Hardy
575E Yeats

http://catalog.gmu.edu
580 Seminar in Major Figures of American Literature (3)
Intensive study of the work of one or two major figures of American Literature. Specific content will vary from semester to semester and will be announced before registration. This course may be repeated for credit with the permission of the Department. Past offerings are listed below:
- 580A Twain (Not open to students who have taken 580H)
- 580B Eliot
- 580C Stevens
- 580D Faulkner (Not open to students who have taken 580G)
- 580E James and Cather
- 580F Melville (Not open to students who have taken 580H)
- 580G Frost and Faulkner (Not open to students who have taken 580D)
- 580H Melville and Twain (Not open to students who have taken 580A or 580F)

585 Selected Topics, Movements, or Genres of Literature in English (3)
Specific content will vary from semester to semester and will be announced before registration. This course may be repeated for credit with the permission of the Department. Past offerings are listed below:
- 585A Literary Modernism
- 585B The Unconscious in Twentieth Century Literature
- 585C Romantic Theories of Myth
- 585D Popular Culture and Literature
- 585E Modern Autobiography

598 Directed Reading and Research (3)
Prerequisite: Open only to degree students who have completed 15 credit hours including ENGL 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 ENGL 598 and then elect the thesis option will receive three (3) credits for ENGL 599 upon completion of the thesis. Those students who do not take ENGL 598 will receive six (6) credits for ENGL 599 upon completion of the thesis.

600 Workshop in English (1-3)
Prerequisite: Admission to the Graduate Program or permission of the Department. Concentrated workshops, educational tours, and special seminars dealing with selected topics in writing, linguistics, film, the electronic media and literature written in English. All tours are optional and may be replaced by specified work conducted on campus. The course may be repeated for credit with the permission of the Department, but no more than six semester-hours of credit in ENGL 600 may be applied toward a master's degree in English.

Faculty
Professors: Boothe, Cassara, Spence
Associate Professors: Harsh (Chairman), Jensen, Pacheco, Pugh, Saeed, Soder, Spindler
Assistant Professors: Censer, Cohen, DeMarce*, Deshmukh, Gleissner, Hawkes, Henriches, Lytton, Siu, Walker
*On leave of absence, academic year 1977-78.

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 entrance requirements of the Graduate School, applicants for the Master of Arts 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. With thesis, 30 semester-hours of approved graduate work with a grade point average of not less than 3.00; or, alternatively, 33 semester-hours of approved graduate work with a grade point average of not less than 3.00.
2. Three semester-hours in HIST 500 (to be taken within the first nine hours of coursework).
3. 12 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. A student's program may include up to six semester-hours in approved undergraduate courses. (See list on page 52.)
6. Candidates must meet the foreign language requirement in one of the following ways:
   a. have successfully completed (before completing 15 hours...
of graduate work) college courses through the intermediate level in a foreign language appropriate to his or her field of concentration.

b. pass a proficiency examination administered by the Foreign Languages Department.

7. Pass an oral comprehensive examination administered by the history faculty covering the student's area of concentration and one other field of history. The candidate must petition the Chairman to schedule this examination no earlier than the end of the last semester of coursework, nor later than the beginning of the next regular semester. Oral comprehensive examinations are not scheduled during the summer session.

8. One of the following alternatives:

a. Six semester-hours in HIST 599 (Thesis);

b. Nine semester-hours, including one additional research seminar in either major or minor field and two elective graduate history courses, which need not be in the candidate's fields of concentration.

Sample Program for the M.A. in History with Thesis

<table>
<thead>
<tr>
<th>Courses</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>HIST 500 Field of Major Concentration (United States, Latin American, or Modern European history)</td>
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</tr>
<tr>
<td>(including one research seminar)</td>
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<tr>
<td>Field of Minor Concentration</td>
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<tr>
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<tr>
<td>HIST 599 (Thesis)</td>
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Sample Program for the M.A. in History without Thesis

<table>
<thead>
<tr>
<th>Courses</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>HIST 500 Field of Major Concentration (United States, Latin American, or Modern European history)</td>
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<tr>
<td>(including one research seminar)</td>
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<td><strong>Total</strong></td>
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</table>

Additional Coursework:

- Research seminar
- Two elective history graduate courses

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 entrance requirements of the Graduate School, 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. 24 credits in history, including the three credits in HIST 500 (to be taken within the first nine hours of coursework).

2. 12 credits in education, including EDUC 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 Collegiate 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 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

403 Early National Period in American History

406 Civil War and Reconstruction

409 Between the Wars: The United States, 1919-1941

410 The United States Since World War II: Nation and Empire

411 Cultural and Intellectual History of the U.S. 1600-1865

412 Cultural and Intellectual History of the U.S. since 1865

435 Culture and Society in Seventeenth- and Eighteenth-Century Europe

436 Culture and Society in Nineteenth- and Twentieth-Century Europe

441 France Since the Revolution

453 History of Spain and Portugal

463 Ancient India and Pakistan

464 Modern India and Pakistan

470 Diplomacy and War in Latin America

475 History of Mexico

478 Spanish Borderlands

Graduate 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.

501 The Colonial Origins of American Society (3)

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 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.

509 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

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http://catalog.gmu.edu
Mathematics

Faculty
Professor: Oppelt (Chairman) Papp
Associate Professors: Bolstein, Draper, Kiley, Saperstone, Siedman, Sennott
Assistant Professors: Fischer, Fond, Gantz, Grotzinger, Levy, Rice, Shaw

Master of Science in Mathematics

The mathematics graduate program is designed to serve those who seek a Master of Science degree as well as those who wish to improve their professional skills. In order to make it convenient for working people to attend, graduate courses are offered only in late afternoon and evening hours. The Department offers a variety of courses in modern applied mathematics and operations research, in addition to the standard curriculum in pure mathematics. The courses are designed to train students in areas relevant to the needs of business, industry, and government, as well as to provide the background for advanced graduate work in the mathematical sciences and for continuing education in the teaching profession. The University has a Unitech terminal on campus with access to a CDC 6400 and an IBM 360.

Departmental Entrance Requirements

In addition to fulfilling the entrance requirements of the Graduate School, applicants for the master’s degree in mathematics must have:

1. Three letters of recommendation.
2. Undergraduate courses in Mathematics similar to those of George Mason University: MATH 315, 316—Advanced Calculus; MATH 321—Abstract Algebra; MATH 322—Linear Algebra. The course Intermediate Analysis and Algebra presents the highlights of these prerequisite courses and develops the skills necessary to enable a student to enter courses at the graduate level.

Departmental Degree Requirements

In addition to fulfilling the degree requirements of the Graduate School, the candidate for the Master of Science degree in mathematics must:

1. Complete no less than 30 hours of graduate work approved by the Department with a grade average of 3.0 or better. Up to six hours toward the master’s degree in mathematics may be chosen from certain mathematically related courses in other departments provided prior approval has been obtained from the Mathematics Department.
2. Complete MATH 515 or 516 with a grade of C or better.
3. The research component of the degree (Thesis 599/ Seminar 591, 592) must be at least three hours but no more than nine hours. A maximum of six hours in thesis or in seminar may be applied toward the 30 hour minimum requirement for the degree.
4. Pass a comprehensive examination.

Undergraduate-Graduate Courses

The following undergraduate course has been approved for graduate credit. See page 28 for further information. Course descriptions appear in the Undergraduate Catalog.

443, 444 Deterministic Models in Operations Research
Graduate Courses

A double number separated by a comma (MATH 521, 522) 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 II 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)
Prerequisite: MATH 515 or consent of the instructor. General properties of differential equations. Linear systems. Properties of solutions. Related topics.

515 Real Analysis I (3)

516 Real Analysis II (3)
Prerequisite: MATH 515 or consent of instructor. Metric spaces. Banach spaces and examples, including the Stone, Weierstrass, Riesz representation, and Ascoli theorems. General measure and integration theory, including the Lebesgue-Stieltjes integral, and product integrals. Fubini’s theorem and the Radon-Nikodym theorem.

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 combinatorics.

543 Mathematical Programming I (3)
Prerequisite: MATH 443 or consent of instructor. Integer Programming. Cutting plane and enumeration techniques for the solution of integer linear programs. Knapsack problem, set covering and partitioning problems, matching problem. Applications to problems in the management sciences, such as capital budgeting, location of facilities, political redistricting, and scheduling problems.

544 Mathematical Programming II (3)
Prerequisite: MATH 515 and knowledge of a scientific programming language, or consent of the instructor. Nonlinear Programming. Optimization techniques applicable to the most frequently occurring mathematical models in the fields of engineering, economics, operations research, and management science. Unconstrained optimization by search techniques, descent methods and conjugate directions. Constrained optimization by a transformation to unconstrained problems, and techniques which deal with the constraint region explicitly.

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

554 Applied Statistics (3)
Prerequisite: MATH 351 or equivalent, or MATH 551. Sampling theory, estimation, hypothesis testing, comparison of data, various classical tests, linear models and analysis of variance, decision theory.

561, 562 Systems Optimization and Control (3, 3)
Prerequisite: MATH 551 or the equivalent, and MATH 515 or consent of the instructor. 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)
Prerequisite: MATH 531 or equivalent, or MATH 551. Poisson Processes, Renewal Theory, Markov and Semi-Markov Processes, queuing theory, birth and death processes, inventory models, reliability theory, Markov decision models.

590 Topics in Operations Research (3)
Prerequisite: Permission of instructor. An advanced topic chosen according to the interests of students and the instructor from these: dynamic programming, inventory theory, queuing theory, Markov and Semi-Markov decision processes, reliability theory, decision theory, network flows, large-scale linear programming, stochastic programming.

591, 592 Seminar (3, 3)

599 Thesis (1-6)
Original or compulsory work to be evaluated by a committee of three faculty members.
Graduate Catalog 1978-1979
George Mason University

Psychology

Faculty

Professors: Jordan, Mandes
Associate Professors: Mellinger (Chairman), Buffardi, Cooper, Moretz, Pasnak, Tyer
Assistant Professors: Allen, Batlis, Crowe, Erdwins, Flinn, Gessner, Gross, Holt, Lehman, Mendelsohn, Rugel, Sanford, Small, Smith, Walters

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 or adult clinical psychology or in counseling psychology.

Departmental Entrance Requirements

In addition to fulfilling the entrance requirements of the Graduate School, 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 a laboratory course in experimental psychology. 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 clinical and counseling areas will be evaluated on potential clinical ability as well as on academic performance since sound interpersonal skills are an important aspect of clinical effectiveness. Applicants to these specializations 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.

Because space is limited, fulfillment of the minimum requirements stated above does not guarantee admission to the graduate program in psychology. Selection will be made of the best qualified from among all applicants. An applicant's work experience, publications, or special recommendations may compensate for deficiencies in other qualifications.

Special Departmental Regulations

Provisional students should take 12 hours of graduate work in psychology from the courses listed below before applying for degree status. Provisional students are expected to obtain a minimum 3.25 GPA in these courses. Their GPA will be a major (but not the sole) factor in determining acceptance to the degree program. The courses needed before the student requests a change to degree status are:
1. PSYC 501
2. PSYC 503, 551, or 552 (students in the experimental specialization should take 551 or 552)
3. Two courses in the area of specialization. The student should consult the Department to determine the exact courses required.

Non-degree Status

Applicants who qualify for degree status, but who are not applicants for a degree at George Mason University, may be admitted to non-degree status. Non-degree graduate status is not intended to be used as a qualifying program for degree status. While consideration may be given at a later date to the application of credits earned toward a degree program while in non-degree status, there is no assurance that such requests will be granted. If granted, however, no more than 12 semester-hours of credit earned in non-degree status may be applied to a degree program.

Departmental Degree Requirements

In addition to fulfilling the degree requirements of the Graduate School, candidates must fulfill the following departmental requirements:
1. Candidates in the experimental and industrial specializations must complete 30 hours of graduate credit. Candidates in the clinical and counseling specializations must complete 41 hours of graduate credit.
2. All candidates must complete six credit hours of general psychology (PSYC 501 and 502).
3. All candidates must take work in methodology in psychology. Clinical, counseling, and industrial students must take at least three credit hours in methodology while students in the experimental specialization must take at least six credit hours of methodology.
4. All students must complete a practicum or a research thesis. Students in the industrial area are given the option of completing either a six credit practicum or a six credit thesis. A thesis is required in the experimental specialization and may focus on a variety of areas in human or animal experimental or physiological psychology. Students in the clinical and counseling specializations must complete a six credit practicum. The opportunity to participate in clinical research is also available.

Clinical and Counseling Specializations

These specializations share a common core curriculum and are designed to train students in various forms of psychological testing and treatment. They differ in that the clinical specialization stresses the psychological testing and psychotherapy skills required to deal with individuals with various forms of psychopathology. The counseling specialization emphasizes the psychological testing and counseling skills needed to deal with individuals whose personal and vocational problems can be dealt with in community settings.

All students in these two specializations are required to take a total of 41 hours including 18 hours of core courses as follows: (a) review of recent research in the major areas of psychology (PSYC 501, 502), (b) methodology used in psychological research (PSYC 503), (c) an introduction to psychotherapy techniques and their application (PSYC 528), and (d) six credit hours in a practicum which provides work experience in a human service setting (PSYC 550). Students specializing in clinical psychology...
are also required to take (a) a course in physiological psychology (PSYC 504), (b) three hours of psychopathology, (c) 11 hours of psychological assessment, (d) three additional hours of psychotherapy or counseling, (e) a three hour elective.

In addition to the basic core, students in the counseling specialization are required to take (a) three hours of ego psychology or psychopathology, (b) three hours of vocational theory (PSYC 582), (c) eight hours of psychological assessment, (d) six additional hours of counseling or psychotherapy, and (e) a three hour elective.

Students specializing in clinical psychology may further concentrate in child or adult clinical psychology. Those specializing in counseling may choose an elective in the areas of community counseling or industrial mental health. A program of studies will be planned by the student and the academic adviser.

Since interpersonal skills are an essential aspect of clinical effectiveness, students specializing in the clinical and counseling areas are periodically evaluated during their graduate work by the clinical faculty. Clinical skills as well as academic performance will be assessed. As a result of these evaluations, some students may be asked to discontinue their clinical or counseling specializations.

Experimental Specialization
Students specializing in experimental psychology must complete a total of 30 hours of graduate credit including (a) core courses which cover research in the major areas of psychology (PSYC 501, 502), (b) six credit hours of research methodology (PSYC 551, 552), (c) a six credit hour research component, including the completion of a thesis (PSYC 599), (d) three additional courses in various areas of experimental psychology, and (e) a three hour elective.

Industrial Specialization
Students in the industrial specialization also complete 30 hours of graduate credit including (a) core courses which cover research in the major areas of psychology (PSYC 501, 502), (b) three courses in the industrial area, (c) one three hour course in research methodology, (d) a six credit hour research component including the completion of a thesis (PSYC 599) or a six credit hour practicum (PSYC 550), and (e) a three hour elective.

Programs of Study
Clinical and Counseling Psychology

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<th>I. Basic core courses:</th>
<th>Required hours</th>
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<td>PSYC 501, 502, 503, 528</td>
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<tr>
<td>Psychology practicum: PSYC 550</td>
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</table>

<table>
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<tr>
<th>II. Select from courses listed below:</th>
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<td>Clinical:</td>
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<td>Psychological assessment:</td>
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<tr>
<td>PSYC 511, 515, 512, or 522</td>
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<tr>
<td>Psychopathology: PSYC 516 or 517</td>
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<tr>
<td>Biological foundations: PSYC 504</td>
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<td>Psychotherapy and counseling:</td>
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<td>PSYC 529, 584, or 585</td>
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<tr>
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<table>
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<td>Methodology: PSYC 551, 552</td>
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<tr>
<td>Research: PSYC 599</td>
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<td>At least three courses from the</td>
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<th>Industrial Psychology</th>
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<tr>
<td>Research or Practicum: PSYC 550 or 599</td>
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<tr>
<td>Three courses from the Industrial area:</td>
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<tr>
<td>PSYC 430, 432, 531, 532, 534, 535, 582</td>
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<td>One course from the area of Methodology:</td>
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<tr>
<td>PSYC 503, 551, 552, 554, 556</td>
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<tr>
<td>Electives</td>
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</table>

Undergraduate-Graduate Courses
The following undergraduate courses have been approved for graduate credit. For further information, see page 28. Course 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 Courses
To assist students in program planning, the semester in which courses are normally offered is indicated by the following abbreviations:
F — Fall Semester
Sp — Spring Semester
Su — Summer Session
Typical schedules for each specialization are available in the department office.
Students who have the equivalent background to the prerequisites listed for any graduate psychology course may apply to the instructor for permission to enter the course.

A minimum of 15 undergraduate hours in psychology is a prerequisite for all psychology graduate courses. Students who have fewer hours in psychology but who have had similar courses in other disciplines should consult the Department for permission to take graduate psychology courses.

501 Advanced General Psychology I (3) F, Sp
Prerequisite: PSYC 200 and either 304, 305, 309, 311, or 316. A critical review of the major topics of experimental psychology: learning, motivation, cognition, perception (the senses), thinking and problem solving.

502 Advanced General Psychology II (3) Sp, Su
A critical review of the major topics in personality theory, developmental and social psychology.

503 Experimental and Research Design (3) F, Su
Prerequisite: PSYC 200 and either 304, 305, 309, 311 or 316. 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) F, Su
Prerequisite: PSYC 371 or 372. 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 comcomitant with psychopathology.

506 Theories of Personality (3) F
Prerequisite: PSYC 220. 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) Sp
General theories of social psychology will be studied in detail, including those of K. Lewin and F. Heider.

508 Theories of Development (3) F
Prerequisite: PSYC 210 or 310. A survey of the major theories of infant and child development including the works of Piaget, Freud, Erikson and Spitz.

509 Problematics in Psychology (3) F
Students who took PSYC 502 before Fall 1977 may not receive credit for this course. A new way to think about psychological problems will be presented. The lack of tangible theoretical achievement may be attributed to the inadequacy of the underlying fundamental concepts of current psychology. These concepts will be critizied and other concepts in psychology and cognate disciplines will be considered in their place.

511 Psychological Assessment (4) Sp
Open only to degree students in psychology. Prerequisite or Corequisite: PSYC 516, 517, or 580. Limited enrollment, permission of Department required. 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 organicity; principles of interpretation of these procedures. Three lecture hours, three laboratory hours.

512 Advanced Adolescent and Adult Assessment (3) Su, F
Open only to degree students in psychology. Prerequisites: PSYC 511 and 515. Limited enrollment, permission of Department required. 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.

515 The Measurement of Intelligence (4) F
Open only to degree students in psychology. Limited enrollment, permission of Department required. 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 intelligent assessment. Three lecture hours, three laboratory hours.

516 General Psychopathology (3) F
Prerequisite: PSYC 325. 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) F
Prerequisite: PSYC 210 or 310 and 325. An intensive survey of the major types of psychopathological disturbances of infancy and childhood.

522 Advanced Child Assessment (3) F, Su
Open only to degree students in psychology. Prerequisites: PSYC 511 and 515. Limited enrollment, permission of Department required. The problems involved in the diagnostic assessment of children with various handi-
564 Sensory Processes (3) F  
Prerequisite: PSYC 309 or 371. 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.

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

566 Perception (3) Sp  
Prerequisite: PSYC 309. 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.

567 Experimental Study of Small Group Behavior (3) Sp  
Prerequisite: PSYC 231 and PSYC 503. Not open to students who have completed PSYC 522-A. A survey of the theories, methods, and topics relevant to individual behavior in a small group setting. Effects of the individual upon the group, effects of the group upon the individual, and interaction effects among individuals will be the focal points of the topics surveyed.

568 Seminar in Cognition (3) F  
Prerequisite: A course in perception, learning, or the psychology of thinking. A discussion of current theories and research on (1) the content of cognition, such as symbols, abstractions, and cultural tools, and (2) the nature of human mental processes that enable the acquisition, organization, and use of knowledge, such as attending, remembering, and thinking.

569 Personality Processes (3) F  
Prerequisite: PSYC 220 or 325. 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.

572 The Theoretical Basis of Vocational & Occupational Psychology (3) Sp  
A review of theories and basic research underlying vocational development and occupational choice. Current practices in occupational guidance.

583 Assessment Techniques in Counseling Psychology (4) Sp  
Open only to degree students. Prerequisite: PSYC 516 or 580. Limited enrollment, permission of Department required. A survey of testing and evaluation methods used in personal and vocational counseling. The laboratory offers students experience in administering, scoring, and interpreting information gathered from various psychological tests used by counseling psychologists.

584 Psychological Counseling Techniques I (3) Sp  
Open only to degree students. Prerequisite: PSYC 528. Limited enrollment, permission of Department required. Application of various counseling techniques generated by current dynamic and interpersonal approaches to counseling. The focus is on group counseling approaches, giving the student experience in techniques used in contemporary practice. Tapes of students' counseling sessions are required for course credit.

585 Psychological Counseling Techniques II (3) F  
Open only to degree students. Prerequisite: PSYC 584. Limited enrollment, permission of Department required. Application of various counseling techniques generated by current dynamic and interpersonal approaches to counseling. The focus is on individual counseling approaches, giving the student experience in techniques used in contemporary practice. Tapes of students' counseling sessions are required for course credit.

592 Special Topics in Psychology (3)  
Prerequisite: Admission to graduate program or permission of instructor. Selected topics reflecting specialized areas in psychology. Specific content will vary and will be announced before registration. May be repeated.

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 PSYC 599 (Thesis).

599 Thesis (3 or 6)
Admissions Committee within two years after their initial admission that they meet the full requirements for admission to the MPA program. Those who cannot or who fail to do so will be automatically dropped from the MPA program.

Students who are denied admission or students who are admitted to the MPA program and drop out for reasons other than academic inadequacy may reapply for admission. Persons making reapplication must meet the full University and departmental requirements. Applications for readmission will be considered only once each calendar year, except that readmissions after suspension for academic inadequacy will be considered only after the lapse of two years.

Advancement to Degree Candidacy

Admission to the program as a degree student does not guarantee either departmental advancement to degree candidate status or attainment of the MPA degree.

A student must first be admitted to the MPA program by the Graduate School as a degree student. Thereafter, the student must be advanced by the Department to degree candidate status. Degree students shall petition the faculty of the Department of Public Affairs for advancement to degree candidacy. The petition shall contain evidence showing:

1. Understanding of the designated administrative tools. (See Departmental Degree Requirements, below.)
2. Successful completion of at least 18 hours of graduate study to include not less than 12 hours completed at George Mason University, including completion of PUAD 590, Research Design.
3. Probable ability to complete the remainder of the MPA program.
4. Recommendation of the student’s departmental graduate research project supervisor that the student be advanced to degree candidacy.

In all cases, the burden of proof for showing evidence warranting advancement to the status of degree candidate rests with the student.

Any student who has petitioned the faculty of the Department of Public Affairs for advancement to degree candidacy, and who has not been so advanced, may request reconsideration after a waiting period of one year. A student who petitions for advancement to the status of degree candidate rests with the Department of Public Affairs for advancement to degree candidacy. The petition shall contain evidence showing:

1. Understanding of the designated administrative tools. (See Departmental Degree Requirements, below.)
2. Successful completion of at least 18 hours of graduate study to include not less than 12 hours completed at George Mason University, including completion of PUAD 590, Research Design.
3. Probable ability to complete the remainder of the MPA program.
4. Recommendation of the student’s departmental graduate research project supervisor that the student be advanced to degree candidacy.

In all cases, the burden of proof for showing evidence warranting advancement to the status of degree candidate rests with the student.

Any student who has petitioned the faculty of the Department of Public Affairs for advancement to degree candidacy, and who has not been so advanced, may request reconsideration after a waiting period of one year. A student who petitions for reconsideration must show that the deficiency in the original petition has been overcome.

Departmental Degree Requirements

In addition to fulfilling the degree requirements of the Graduate School, there are three general categories of degree requirements for the MPA program.

1. The student must complete 45 semester-hours of graduate study distributed as follows:
   b. One of the following level-of-government courses in PUAD (3 hours): 550, 552, 554 or 558.
   c. Three graduate courses in one subject specialization (9 hours). Subject specializations currently available at George Mason University are in the fields of Public Personnel Administration and Public Financial Management. Other subject specializations will be developed as staff permits and as student need dictates. Several subject specializations, including Community Development, Criminal Justice Administration and Urban and Regional Planning, are available by completing an approved list of courses at other area universities or colleges. Other subject specializations can be developed to meet the specific needs of students. Examples of such additional specializations include Administrative Regulation, Environmental Administration, International Development Administration, Manpower and Employment Services Administration, National Security and Arms Control, Organizational Planning and Control, Public Health Administration, Public Works Administration, and Transportation Management.
   d. Two graduate courses in the design and conduct of public administration research (6 hours): PUAD 590, 591.
   e. Three elective graduate courses (9 hours). If the student is required to complete PUAD 502 as a condition of admission to the program, the elective course requirement is reduced to two courses (6 hours).

2. The student must demonstrate an understanding of the use of certain administrative tools.
   a. Written Communication. Students must show the ability to write precise, lucid, concise and cogent English. An independent research paper will be required in each of the six core courses. Executive summaries of each of these papers, along with evidence of approval by the instructor of each respective course, must be submitted as attachments to the petition for advancement to degree candidacy.
   b. Statistics.
   c. Accounting.
   d. Computer Technology. Students may demonstrate understanding of statistics, accounting and computer technology either by completing an appropriate course in each of those subjects, or by satisfying the Department of Public Affairs that work experience clearly demonstrates understanding of the appropriate tool.

3. By successfully completing a written comprehensive examination in Public Administration. It will be designed to verify the knowledge of degree candidates in the field of Public Administration. Thus, the written examination will focus upon the 36 hours of non-elective graduate work required in the MPA program curriculum with special emphasis upon the six core courses. Students who do not acquire themselves satisfactorily on the written examination may petition to take an oral examination. All examinations will be conducted by a panel of the faculty of the Department of Public Affairs. Examinations will be scheduled during the last semester of each student’s work and after completion of the research project (PUAD 591). If a student fails to pass the comprehensive examination, he may petition the departmental faculty for reexamination after the lapse of one semester. However, only one reexamination will be permitted per student. Comprehensive examinations will be scheduled once, and only once, each semester.

Graduate Student Advising

Each student who is admitted to the MPA program will be assigned to a member of the faculty of the Department of Public Affairs for graduate academic counseling and advice. Working together, the student and the faculty member will design a course of study to meet the practical career needs of the individual student. Particular attention will be given to the selection of 1) level-of-government course, 2) functional subject specialization courses, and 3) elective graduate courses. No student will be permitted to enroll for credit of graduate hours under the MPA program in other than the six core courses without the expressed written approval of the faculty adviser.

The research design (PUAD 590) and project (PUAD 591) will relate closely to the work of the student, if employed in government. If not so employed, the research design and project may be conducted in connection with a public service internship. The
research project must relate closely to the career goals and career potential of the student.

Transfer and Equivalency Credit

Transfer Credits. Subject to overall University requirements, a student with prior approval of the graduate faculty adviser may transfer a maximum of six semester-hours of graduate work completed at another fully accredited institution of higher learning. As appropriate, and with the prior approval of the graduate faculty adviser, these six hours may be used to fulfill any of the MPA degree requirements except PUAD 590 and PUAD 591. Such transfer credit hours must have been completed prior to admission as a degree student to the MPA program at George Mason University. In addition to all other requirements, the graduate faculty adviser in the Department of Public Affairs must find that the graduate semester-hours proposed for transfer fit the career needs and the MPA study program of the individual student, as outlined under Graduate Student Advising, above. After admission as a degree student, a student with the prior approval of his graduate faculty adviser and the Graduate Dean may, when need exists, earn up to nine hours of transfer credits for graduate courses taken at other institutions.

Equivalency Credit. Students who, prior to admission to the MPA program, have had extensive professional, managerial, administrative, or technical experience in the public service and who have successfully completed programs of instruction at graduate level caliber for which no graduate academic credit was awarded, may request the Department of Public Affairs to grant graduate credits therefor. The Department may grant graduate credit for such work not to exceed nine graduate semester-hours. Instructional experiences submitted for consideration as academic credit must have been completed in programs that operate at an instructional level comparable to that of a university graduate school; or have been conducted by recognized professional societies that present courses of comparable graduate level; or have been conducted by an accredited university. Credit, if granted, will be awarded at the rate of three semester-hours for each forty-five clock hours of instruction. In no case, however, may more than three credit hours be awarded for a single instructional experience (e.g., completion of one full session at the Federal Executive Institute). The graduate faculty adviser in the Department of Public Affairs must find that equivalency credits proposed for acceptance into the MPA program fit the career needs and program requirements of the individual student.

Students who petition for such equivalency credit must submit to the Department of Public Affairs the following:

1. Name, address, and affiliation of the organization that conducted the instruction.
2. Name, description, contents, and requirements of the course.
3. Name, profession, qualifications, and position of the instructor or instructors.
4. Exact dates, duration of the course, and the total hours of contact with the instructor.
5. Evaluation of the course by the student.
6. Account of the instructional tools, physical environment, and materials used during the course of instruction.
7. Authoritative evidence that the course was successfully completed. In all cases, the courses for which equivalency credit are claimed, if any, must have been completed prior to admission as a graduate student under the MPA program at George Mason University.

Limitation on Transfer and Equivalency Credits

1. A minimum of 30 graduate semester-hours of credit must be earned at George Mason University toward the Master of Public Administration Degree.
2. A maximum of 15 graduate semester-hours of credit may be earned toward the Master of Public Administration degree by a combination of the following:
   a. Transfer of not more than six graduate semester-hours of credit awarded according to the paragraph headed Transfer Credit of this section; and/or
   b. By award of not more than nine graduate semester-hours of credit awarded according to the paragraph headed Equivalency Credit of this section; and/or
   c. After admission to degree status in the Master of Public Administration program by earning at one or more universities offering accredited graduate programs a maximum of nine transfer graduate semester-hours of credit not available in the graduate curricula of George Mason University. These courses must receive the approval of the student's graduate faculty adviser and the Graduate Dean prior to registration at another institution and must be relevant to the student's professional development. Students should read the paragraph of the Graduate School academic regulations titled Permission to Take a Course Elsewhere.

3. The graduate semester-hours of credit resulting from options exercised under a, b, and c may not exceed nine in categories b and c or more than 15 from any combination of the above options.

Undergraduate-Graduate Courses

No undergraduate courses may be counted for graduate credit to satisfy any requirement of this program.

Graduate Courses

501 Moral Dimensions of Public Management (3)
Prerequisite: Graduate standing or permission of the Department. An examination of the moral dimensions of such topics as individual rights, political equality, citizen participation, constitutionalism, and democratic traditions; conflicts of interest, standards of conduct and ethics, integrity, loyalty, and conflicting values of public officials; efficiency, effectiveness, and social equity of public programs. Case studies will be used.

502 Theory and Practice of Public Administration (3)
Prerequisite: Graduate standing or permission of the Department. Survey and review of the field of public administration to include the development of governmental administration in the United States, theories of administrative organization and behavior, administrative processes, management of people and money, administrative responsibility, and the public policy-making-public policy implementation nexus.

503 The Political Environment of Public Management (3)
Prerequisite: Graduate standing or permission of the Department. An examination of the skills involved in a public manager's interaction with private groups, legislative bodies, advisory committees, the press, other administrative agencies, political executives, and other levels of government. Case studies of administrative participation in the political process of public policymaking.

510 Analytical Tools: Quantitative and Non-Quantitative (3)
Prerequisite: Graduate standing or permission of the Department. The study of selected quantitative and qualitative decision-making techniques and behavioral social methodology; information and control systems, systems and procedures analysis, cost-benefit and cost-effectiveness methods, work measurement, legal and historical analysis as employed in public organizations.

520 Program and Policy Analysis (3)
Prerequisites: Graduate standing or permission of the Department, and PUAD 510. Study of substantive issues in the clarification of public policy goals, and estimating risks in public programs. Emphasis on the conceptualization and practical applications of policy science and other formal perspectives to policy articulation, program formulation, and program evaluation in the public sector.
531 Leadership and Management of Public Organizations (3)
Prerequisite: Graduate standing or permission of the Department. Study of managerial concepts, leadership styles, information flow, control systems, management of conflict, decision making, motivation, innovation, interpersonal negotiation, problem-solving, management tools, and management constraints in public organizations.

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

552 Administration in the Commonwealth of Virginia (3)
Prerequisite: Graduate standing or permission of the Department. An analysis of the cultural, demographic, constitutional, and socioeconomic environment of public administration in Virginia. Governmental agencies, legislative functions, executive leadership, staff agencies, state-local relationships, intrastate regionalism, and administrative customs peculiar to Virginia.

554 Issues in Local Government Administration (3)
Prerequisite: Graduate standing or permission of the Department. An in-depth study of selected contemporary problems—such as land use, transportation, economic development, growth management, and environmental impact—in the management of counties, cities, towns, and special districts, with emphasis on local government in Virginia.

558 Dynamics of the Federal Bureaucracy (3)
Prerequisite: Graduate standing or permission of the Department. Analysis of the structures and functions of federal agencies; the agency-public policymaker nexus; administrative roles of Congress; administrative functions of the presidency and of overhead agencies; study of selected operational problems in major departments, independent agencies, and with task forces, advisory committees, regional offices and interest groups.

561 Public Budgeting Systems (3)
Prerequisite: Graduate standing or permission of the Department. Development, theories, and structure of budgeting as found in American government. Political, economic and managerial aspects of public budgeting are examined. Public policy implications are explored. Particular attention is paid to budgetary reform movements and their successes and failures.

562 State and Local Financial Management (3)
Prerequisite: Graduate standing or permission of the Department. Systems of public finance at the State level. The impact of budgetary systems and taxation on state government, the impact of federal grants-in-aid, revenue sources, and the relationship of national, state and local jurisdictions as partners in a federal system. Program auditing and new budgetary techniques will be examined for their applicability at the state level.

563 Issues in Public Financial Management (3)
Prerequisite: Graduate standing or permission of the Department. Analysis of revenue forecasting, revenue strategy, impact of inflation, interest rates, taxation, accounting, budgeting, "back door" spending, pension funding, user charges, and other aspects of governmental finance.

571 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.

573 Executive Personnel Management in the Public Service (3)
Prerequisite: Graduate standing or permission of the Department. Identifying potential executives in the public service; inventorying executive personnel resources; tools used in executive selection, executive career patterns; leadership development techniques, executive compensation and benefits, executive mobility, the senior civil service proposal: development of leadership and managerial skills; evaluation of executive selection and development programs.

575 Issues in Public Personnel Administration (3)
Prerequisite: Graduate standing or permission of the Department. Review of special personnel management programs in the public service (such as Affirmative Action, occupational safety, drug abuse and alcoholism counseling, employment of the aged, employment of the youth, retirement counseling, status of women, public pay comparability) with special attention to impact on fundamental principles of public personnel administration.

590 Research Design (3)
Prerequisite: Degree student status, completion of PUAD 510 and not less than 12 nor more than 27 hours of approved graduate credits required in this MPA program, and demonstration of proficiency in the following tools: statistics, accounting, and computer technology. To include a review of project-related background material. The Research Design must include a statement of purpose, identification of data sources, data collection strategies, possible alternate hypotheses to be tested, the framework of analysis, and a statement of anticipated results.

591 Research Project (3)
Prerequisite: Completion of PUAD 590 and permission of the Department. Student completion of an original research project related to public sector administration. On the basis of the approved Research Design each student shall prepare and defend a final report that is the result of the Research Project. The final report must be approved by the Department of Public Affairs.
Spanish

Chairman, Department of Foreign Languages and Literatures: Associate Professor Hecht

Faculty
Professor: Font
Associate Professors: Aguera, Hazera, Seward

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 toward the Ph.D. at another institution.

Departmental Entrance Requirements
In addition to fulfilling the entrance requirements of the Graduate School, 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.

In addition, two letters of recommendation from professors of Spanish with whom the applicant has studied or from others directly familiar with his professional competence are required.

Departmental Degree Requirements
In addition to fulfilling the degree requirements of the Graduate School, the candidate must meet the following departmental requirements:

1. Completion of 30 hours of coursework, including SPAN 500 and SPAN 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 SPAN 599 (Thesis). If a student elects not to write a thesis, his program must include at least two seminars (SPAN 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, the Graduate School Foreign Language Test, taken under the auspices of the Educational Testing Service, or a graduate reading examination administered and endorsed by the language department of another accredited school.

Undergraduate-Graduate Courses
The following undergraduate course has been approved for graduate credit. Course description appears in the Undergraduate Catalog.

412 Special Studies in Literature

Graduate Courses

501 Applied Grammar for Teachers (3)
This course will provide an analysis of Spanish grammar to expand on its application to the teaching of language skills. The terminology and methodology for the teaching of syntax will be stressed. The Practicum will consist of intensive practice in the preparation of drills, exercises and tests to further develop teaching and understanding of grammatical structures.

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.

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 a literary genre 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)
Intensive study of a writer, genre, theme or movement of this period.

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 Benavente in the Generation of 1898 and Buero Vallejo in the contemporary theatre.

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.
Additional Course Offerings

In addition to the degree programs, a number of departments which do not have graduate degree programs offer graduate courses (500-level and above) for elective credit and personal or professional enrichment. Supporting graduate courses, but no graduate programs, are offered in American studies, astronomy, chemistry, French, geography, geology, health, nursing, physical education, physics, and sociology.

There are also undergraduate courses approved for graduate credit in the following disciplines: art, biology, business administration, chemistry, English, French, geography, German, government and politics, history, mathematics, music, physics, psychology, and Spanish. A maximum of two of these courses, or six semester-hours, may be applied toward a master's degree, provided they are taken after the student's admission to the Graduate School and with the prior written approval of the student's adviser and the department offering the course.

American Studies

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

502 Problems in American Culture (3)  
Prerequisite: Open to all graduate students with permission of the Chairman, American Studies Committee. Selected topics of general interest featuring an interdisciplinary approach to an intensive study of various aspects of American culture. Seminars limited to fifteen students. Specific content will vary from semester to semester and will be announced before registration. Seminars may be repeated with permission of the Chairman, American Studies Committee. Past offerings are listed below:  

502A The Hudson River

Art

The Department of Fine and Performing Arts offers, in support of other graduate programs, the following undergraduate courses which have been approved for graduate credit. See page 28 for further information. Course descriptions appear in the Undergraduate Catalog.

491, 492 Advanced Studio Problems (2-4), (2-4)

Astronomy

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

505 Fundamentals of Astronomy (3)  
Prerequisite: Graduate standing or permission of the instructor. This course will place particular emphasis on the connection of astronomy to other disciplines as well as the recent developments in astronomy. Our planet earth, its origin and past history and the origin of life, Ancient, Renaissance and modern astronomers. Basic physics. Tools of the astronomer. The solar system, the sun, stars, our galaxy. Quasars, general relativity and cosmology. The origin, past nd future of the universe. Extraterrestrial life. Recommended for teachers of general science. Three hours per week.

Chemistry

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

Undergraduate-Graduate Courses

The following undergraduate courses have been approved for graduate credit. See page 28 for further information. Course descriptions appear in the Undergraduate Catalog.

331 Physical Chemistry I  
332 Physical Chemistry II  
413 Special Topics in Organic Chemistry  
422 Instrumental Analysis  
431 Chemical Thermodynamics  
432 Atomic & Molecular Structure  
441 Inorganic Chemistry  
445 Inorganic Preparations & Techniques  
461, 462 Biochemistry

Graduate Courses

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.

French

The Department of Foreign Languages and Literatures offers courses in support of other graduate programs.

Undergraduate-Graduate Courses

The following undergraduate courses have been approved for graduate credit. See page 28 for further information. Course descriptions appear in the Undergraduate Catalog.

405 French Literature of the Renaissance  
413 French Literature of the Seventeenth Century: Classical Drama  
414 French Literature of the Seventeenth Century: Prose and Poetry  
421 French Literature of the Eighteenth Century: Montesquieu and Voltaire  
422 French Literature of the Eighteenth Century: Diderot and Rousseau  
461 Linguistic Structure of Modern French

Graduate Courses

525 Studies in Modern French Literature (3)  
Prerequisite: Graduate standing or permission of the Department. Selected
Foreign Languages

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

600 Workshop in Foreign Languages (1, 2, 3, 4, 5, 6)
Prerequisite: Graduate standing or permission of instructor. Concentrated workshops, educational tours and special seminars dealing with selected topics in literature, language, bilingualism, culture, methodology, etc. This course may be repeated for credit with the permission of the Department, but no more than six semester-hours of credit in FRLN 600 may be applied toward a master's degree in Spanish.

Geography

The Department of Public Affairs offers, in support of other graduate programs, the following undergraduate courses which have been approved for graduate credit. See page 28 for further information. Course descriptions appear in the Undergraduate Catalog.

402 Urban Geography
403 Problems in Environmental Management
405 Transportation Geography
410 Cartography

Graduate Courses

520 Geography for Teachers (3)
Prerequisites: Baccalaureate degree or permission of instructor. Emphasis on problems in teaching geography and on new teaching techniques, as well as on current developments in research, methodology, and philosophy in the discipline. Evaluation of curriculum materials from various sources. Lecture, discussion, library research, preparation of original instructional materials.

590 Selected Topics in Geography (3)
Prerequisites: Baccalaureate degree or permission of instructor. This course is designed to analyze topics of immediate interest and, for that reason, the content will vary. The particular topic for any semester will be a result of student and instructor and expertise. The course may be repeated for credit.

Health

The Department of Health and Physical Education offers the following course in support of other graduate programs.

540 Advanced Driver and Traffic Safety Education (3)
Prerequisite: Three hour basic course in driver education; course in general safety education on college level; valid operator's license. Advanced course in driver education for teachers, supervisors and administrators of driver education and traffic safety programs.
Music

The Department of Fine and Performing Arts offers, in support of other graduate programs, the following undergraduate courses which have been approved for graduate credit. See page 28 for further information. Course descriptions appear in the Undergraduate Catalog.

445 Bibliography and Research Techniques
496 Seminar in Ethnomusicological Area Studies

Nursing

The following courses in Nursing have been approved for graduate credit:

521 Components of Health Appraisal (3)
Includes principles, skills and techniques in health appraisal of clients of all ages. Methods of recording, interpreting and auditing problem-oriented profiles provide a framework for the development of a health appraisal data base. Lecture, demonstration, and laboratory practice.

522 Practicum in Health Appraisal (2)
Directed clinical experiences designed to enable the student to utilize the principles, skills and techniques acquired in NURS 521 in interactions with patients in a variety of primary health care settings.

532, 533 Principles of Primary Health Care (4) (4)
An integrated approach to the evaluation and management of common physical and psychosocial health care problems. Advanced skills in biopsychosocial assessment and development of plans for health maintenance. Analysis of the scope of the nurse practitioner's role in the provision of primary care. Lecture and case study.

535, 536 Nurse Practitioner Practicum (4) (6)
This practicum is a directed clinical experience performed in the primary care setting to which the student will be returning upon completion of the program. The practicum is two semesters in length and the student progressively assumes increased responsibility in the delivery of primary care. Application of principles of primary health care in clinical settings.

541 Epidemiological and Psychosocial Perspectives in Preventive Health Care (3)

551 Foundations of Education and Administrative Theory for Nursing (3)
Prerequisite: Baccalaureate degree, licensure as professional nurse and permission of the Department. Focuses on educational and administrative theories foundational to nursing, development of a conceptual base for understanding administration and education in nursing for present day society and the future, and the adaptation of administrative and educative principles of practice.

510 Advanced Exercise Physiology (3)
Prerequisite: Graduate Status, PHED 450 or equivalent, or permission of instructor. Lecture, demonstration, laboratory, research, and seminar experiences whereby current information is provided and contemporary issues relative to Exercise Physiology are examined.

Physics

The Department of Physics offers courses in support of other graduate programs.

Undergraduate-Course Courses
The following undergraduate courses have been approved for graduate credit. See page 28 for further information. Course descriptions appear in the Undergraduate Catalog.

403 Introduction to Quantum Mechanics and Atomic Physics
405 Statistical Mechanics and Thermodynamics
410 Solid State Physics
412 Computational Physics
414 Introductory Nuclear Physics

Graduate Courses

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 hours lecture.

501 Physics Laboratory Techniques for High School Teachers (3)
Prerequisite: Graduate standing. Theory and performance of experiments applicable to high school teaching with practical sessions on use of laboratory apparatus and computer. Recommended for high school teachers of physics. Three hours per week.

520 The Physics of Energy and Environmental Technology (3)
Prerequisite: B.A. or B.S. degree in Natural Science or Mathematics or permission of instructor. A study of the contemporary problems of energy and the environment with emphasis on the pertinent underlying principles of physics within the practical constraints of engineering and economics. The course will provide comprehensive background for those intending to pursue careers in such diverse areas as energy research and development, business administration, economics, ecology and high school science instruction. This course may be used toward specific course requirements for teacher certification in earth science. Three hours per week.

590 Selected Topics in Physics (3)
Prerequisite: Graduate standing or permission of Department. Selected topics from recent theoretical developments and applications in physics. The course is designed to satisfy the needs of the professional community to keep abreast of current developments in physics.

Sociology

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

502 Sociology of Formal Organizations (3)
Prerequisite: Graduate standing or permission of the instructor. This course will place particular emphasis upon classical and contemporary theories governing formal organization, and such issues as the nature of authority, the implementation of change, and the relationship between the formal organization and society.

504 Sociology of Occupations and Professions (3)
Prerequisite: Graduate standing or permission of the instructor. This course will examine the theories of occupations and professions. Issues covered include educational patterns and social mobility, occupational status and prestige, the importance of the work setting and control, work satisfaction and alienation, and the impact of the professions on society.
University Administration

The Rector and Visitors (as of January 1978)
John T. Hazel, Jr., Rector ........................................... Fairfax
Richard A. Bishop, Secretary ................................. Alexandria
Elias Blake, Jr. ................................................... Atlanta, Ga.
Harriet F. Bradley, Vice Rector ............................... McLean
Anita L. Capps .................................................... Arlington
A. George Cook, III ............................................ Alexandria
John J. Corson .................................................... Arlington
William C. Frogale ................................................ Falls Church
Carl V. Lyon ........................................................ Annandale
John W. Macy, Jr. ................................................... McLean
Warren J. Pace ....................................................... Falls Church
Lutrelle F. Parker, Sr .............................................. Arlington
Lester G. Sturgill ................................................... Leesburg
C. Hunton Tiffany ................................................ Warrenton
John C. Wood ....................................................... Fairfax
Louise F. Lowe, Executive Assistant

Executive Committee: Bishop, Cook, *Hazel, Parker, Wood
Faculty and Academic Standards Committee: Bishop, Blake, *Cook, Corson, Macy, Pace, Wood
Finance and Resource Development Committee: Bishop, Bradley, Macy, Frogale, Hazel, Sturgill, *Tiffany
Land Use and Physical Facilities Committee: Bradley, Frogale, Lyon, *Parker
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Student Affairs Committee: *Capps, Cook, Lyon, Tiffany
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Graduate Catalog 1978-1979

George Mason University

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George Mason University. (703)323-2000

Admissions

Undergraduate ................................................. Room 117 Finley Bldg. Clanton A. Blount ............. 2102
Graduate ......................................................... 2202 Robinson Hall ........................................ 2104
Affirmative Action .............................................. 221 Finley Bldg. Carl Cannon .......................... 2519
Athletic Director .................................................. 203 Physical Ed. Bldg. Raymond H. Spuhler .... 2320
Biological Department .......................................... 2256 Robinson Hall Averett Tombs ................. 2181
Bookstore—Main Campus ........................................ 237 Student Union Barbara Marshall ........... 2160
Campus Ministry .................................................. 229 Student Union ......................................... 2160
Career Services ................................................... 365 Student Union Karen M. Blocher .......... 2476
Cashier ............................................................... 100 Finley Bldg. Norma Jean Grider ............ 2119
Chemistry Department ......................................... 240 South Bldg. C. Robert Walter, Jr. ......... 2191
Comptroller ......................................................... 100 Finley Bldg. Benjamin H. Dozier ........... 2569
Consortium ......................................................... 2203 Robinson Hall ....................................... 2156
Cooperative Education .......................................... 109 Robinson Hall ....................................... 2155
Counseling Center ............................................... 206 Thompson Hall Leon E. Boothe .............. 2200
Dean of the College of Arts and Sciences ................. 2237 Robinson Hall Larry S. Bowen ............... 2400
Dean of the College of Professional Studies .............. 100 North Campus Lloyd M. DeBoer ............. 2413
Dean of the School of Business Administration .......... 2203 Robinson Hall ....................................... 2123
Dean of the Graduate School ................................ 211 Finley Bldg. William C. Johnston ............ 2300
Dean of the Summer Session .................................. 238 Thompson Hall ....................................... 2344
Economics Department .......................................... 109 Finley Bldg. William P. Snavely ......... 2421
English Department .............................................. 3318 Robinson Hall ....................................... 2220
Extended Studies .................................................. 132 East Bldg. Robert T. Hawkes, Jr. ......... 2436
Field Instruction (Social Work) ............................... 205 East Bldg. Miriam Raskin ................. 2351
Financial Aid ....................................................... 353 Student Union Dianne B. Smith ......... 2176
Fine and Performing Arts Department ....................... 2400 Thompson Hall ....................................... 2450
Food Service ......................................................... 130 Robinson Hall ....................................... 2450
Foreign Languages Department ............................... 231 Thompson Hall Leo Hecht ................. 2231
General Studies Department ................................... 102 Trailer #102 John M. Smith, Jr. ...... 2405
Health and Physical Education Department ................. 219 Thompson Hall John Veenstra .......... 2322
History Department .............................................. 201 Robinson Hall ....................................... 2242
Library .................................................................. 203 Thompson Hall John Veenstra .......... 2390
North Campus Library ........................................... 203 Thompson Hall John Veenstra .......... 2403
Mathematics Department ........................................ 207 Thompson Hall John L. Oppelt .......... 2262
Media Services ....................................................... 2235 Fenwick Library Victor Bloecher ....... 2297
Minority Affairs .................................................... 309 Student Union Lillian D. Anthony-Welch . 2383
Nursing Department .............................................. 3349 Robinson Hall Evelyn E. Cohelan ....... 2446
Observatory .......................................................... 208 Finley Bldg. George W. Johnson .......... 2490
Philosophy and Religion Department ......................... 4510 Robinson Hall William H. McFarlane .... 2252
Physics Department ............................................... 255 West Bldg. Robert Ehrlich ................. 2302
President .................................................................. 208 Finley Bldg. George W. Johnson .......... 2120
Psychology Department .......................................... 4581 Robinson Hall Jeanne C. Mellinger ....... 2203
Public Affairs Department ....................................... 4535 Robinson Hall Robert P. Clark .......... 2272
Public Relations ..................................................... 206 Finley Bldg. Madilee Wnek ................. 2138
Registrar .................................................................. 125 East Bldg. Michael J. McDermott, Jr. .. 2141
Security—Main Campus .......................................... 2176 Robinson Hall ....................................... 2148
North Campus ....................................................... 214 East Bldg. Ralph W. Morgan ............. 2444
Social Work Program .............................................. 204 East Bldg. Joseph Scimecca ............... 2576
Sociology Department ............................................. 204 East Bldg. Joseph Scimecca ............... 2330
Student Affairs, Vice President ................................ 302 Student Union Donald J. Mash ......... 2134
Student Aid ............................................................ 354 Student Union Rita Bodie .................. 2176
Student Government .............................................. 305 Student Union ......................................... 2196
Student Housing .................................................... 4500 Pohick Lane Ellis S. Delphin .......... 2354
Student Newspaper .................................................. 345 Student Union ......................................... 2168
Student Teaching and Field Experiences (Education) .... 3334 Robinson Hall Gloria Chernay .......... 2434
Student Union Information Desk .............................. 3334 Robinson Hall Gloria Chernay .......... 2374
Testing .................................................................. 345 Robinson Hall ....................................... 2525
Tutoring Services ................................................... 345 Robinson Hall ....................................... 2367
Veterans Affairs ..................................................... 350 Student Union Carol A. Elstad ....... (703)323-2381

http://catalog.gmu.edu
GEORGE MASON UNIVERSITY
THE STATE UNIVERSITY IN NORTHERN VIRGINIA

GRADUATE SCHOOL ADMISSION APPLICATION

• Graduate School Admissions Office • 4400 University Drive • Fairfax, Virginia 22030 • (703) 323-2104

Please read the instruction sheet before completing this application. A $10.00 non-refundable fee, payable to GEORGE MASON UNIVERSITY, must accompany this application. George Mason University is an Equal Opportunity and Affirmative Action Institution.

I. Name and Address

<table>
<thead>
<tr>
<th>1. Full legal name (print one letter per box)</th>
<th>2. Maiden name (if applicable)</th>
<th>3. Social Security Number</th>
<th>4. Telephone number</th>
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<th>First Name</th>
<th>Middle Name</th>
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5. Current mailing address

<table>
<thead>
<tr>
<th>Street</th>
<th>City</th>
<th>State</th>
<th>Zip</th>
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6. Permanent mailing address (if different)

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<tr>
<th>Street</th>
<th>City</th>
<th>State</th>
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II. Admission Information

7. Applying for admission for:

- [ ] Fall semester
- [ ] Spring semester
- [ ] Summer session 19

8. Attendance plans:

- [ ] Full-time
- [ ] Part-time

9. Admission categories (please check appropriate box for status sought):

a. [ ] Degree—A degree student must meet all University and departmental entrance requirements for either full-time or part-time study.

b. [ ] Provisional—A student who does not meet all the minimum academic requirements for degree status but can show some evidence for capacity to undertake graduate work, may apply for Provisional Status. A Provisional Student must submit all required documentation for degree status.

c. [ ] Non-Degree—A student who, i) does not wish to pursue a degree, or ii) has not supplied all required documents for degree status, may apply for non-degree status. (See 10 C.)

10. Field of graduate study.

a. [ ] biology
   [ ] English*
   [ ] mathematics
   [ ] psychology
   [ ] public administration
   [ ] Spanish

b. Degree sought:

   - [ ] M.A.
   - [ ] M.S.
   - [ ] M.B.A.
   - [ ] M.A.T.
   - [ ] M.Ed
   - [ ] M.P.A.

   Program specialization and/or teaching field

*If secondary education, please indicate teaching field:

11. Have you applied previously for admission to this University?  [ ] Yes  [ ] No

   If yes, for which semester and year?  

   Did you register?  [ ] Yes  [ ] No

   If yes, when did you last register? 

12. Have you ever enrolled in credit courses through Extended Studies at GMU?  [ ] Yes  [ ] No

   If currently enrolled, please list courses by course number:
III. Educational and Professional Experience

13. List chronologically all colleges/universities attended (including George Mason University)

<table>
<thead>
<tr>
<th>Undergraduate College/University</th>
<th>Dates Attended</th>
<th>Degree Awarded/Year</th>
<th>Major</th>
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<th>Graduate College/University</th>
<th>Dates Attended</th>
<th>Degree Awarded/Year</th>
<th>Major</th>
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</table>

14. List scholarships, fellowships, academic awards, and honors received since high school:

15. a. Please indicate your objectives for pursuing graduate work at this time.

b. What are your ultimate academic or professional goals?
### 16. List chronologically professional experience which may be relevant to your application (list most recent position first):

<table>
<thead>
<tr>
<th>Name &amp; Location of Employer</th>
<th>Nature of Work</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
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</table>

### 17. List professional honors, awards, or special recognition:

______________________________________________________________________________________________
______________________________________________________________________________________________
______________________________________________________________________________________________
______________________________________________________________________________________________

### IV. Departmental Entrance Requirement

### 18. List names and positions of persons from whom you are requesting letters of recommendation (if required). The enclosed recommendation forms must be used unless a placement file is submitted.

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
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<tbody>
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</tbody>
</table>

### 19. Are you certified to teach?  

- [ ] Yes  
- [ ] No

If yes, specify type of certificate held:

**Area(s) of endorsement:**

**Which state(s)?**

### 20. Test scores (check appropriate block(s); for departmental requirements, see instruction page).

<table>
<thead>
<tr>
<th>Test</th>
<th>Date taken</th>
<th>Date Scheduled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduate Record Examination (GRE)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate Management Admissions Test (GMAT)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Test of English as a Foreign Language (TOEFL)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: It is the student's responsibility to request Educational Testing Service, Princeton, New Jersey, 08540, to forward scores to the Graduate School Admissions Office.

### V. Health Information

### 21. George Mason University has limited provision for rendering health services to students. The following information is requested for emergency purposes only.

- **a. Physician's name and phone number:**
  
  ____________________________________________________________________________

- **b. Do you have any health problems or physical limitations of which the University should be aware?**
  
  [ ] Yes  
  [ ] No

If yes, please explain __________________________________________________________

______________________________________________________________________________________________

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VI. Personal Information

George Mason is an Equal Opportunity and Affirmative Action Institution. The Department of Health, Education and Welfare and other Federal regulatory agencies require that the University supply admissions and enrollment information by racial, ethnic, and sex categories. In order that the University may comply you are requested to check the appropriate box(es) below:

22. Sex
   □ Male
   □ Female

23. Date of birth
   / / mo. day year

24. Marital status
   □ Married
   □ Single
   □ Other

26. Citizen Status
   □ U.S. citizen
   □ Non-citizen on student visa
   □ Non-citizen on other visa. Specify type of visa:

   Date of entry:

If not a citizen of the United States, give country of citizenship

27. Ethnic Background
   a. The Department of Health, Education and Welfare and other Federal regulatory agencies require that the University supply admissions and enrollment information for U.S. citizens and permanent immigrants (with alien Registration Card issued) by racial, ethnic, and sex categories. In order that the University may comply you are requested to check the appropriate box(es) below:

   □ White/Caucasian (including Asian Indian or Pakistani)
   □ Asian or Pacific Islander
   □ American Indian/Alaskan Native
   □ Black/Negro

   b. Is your ethnic heritage Hispanic (Spanish, Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race)?

   □ Yes □ No

I certify that, to the best of my knowledge, the above information is true and correct and that, if I am admitted, I will abide by the rules, regulations, and Honor Code of George Mason University as set forth in the Graduate Catalog.

SIGN HERE:  
Applicant’s signature  
Date

IMPORTANT:
Please re-read this application and make sure that all questions have been answered. Incomplete forms will be returned and processing of your application will thereby be delayed. Have you attached a check/money order to cover the application fee of $10.00?

THE HONOR SYSTEM

George Mason University has maintained an Honor System since its inception in 1957. The System rests on the premise that lying, cheating and stealing have no place in a community dedicated to learning. Anyone who fails to agree with this premise should not apply for admission, since the System is entrusted to the students and to be effective must depend on their willing insistence that it work.

An Honor Committee composed of elected student representatives of the University is responsible for seeing that no student is sanctioned without a fair hearing. In the first instance, however, the primary responsibility rests not on the Committee but on the students who are committed to the proposition that a society of students should not tolerate in its midst a person whose conduct is dishonorable. More important than the mechanics of the System is the spirit which animates and sustains it.

Further information on the Honor System will be found in the catalog.

George Mason University is an Equal Opportunity/Affirmative Action institution committed to the principle that access to study or employment opportunities afforded by the University, including all benefits and privileges, be accorded to each person—student, faculty or staff member—on the basis of individual merit and without regard to race, color, religion, national origin, sex or age (except where sex or age is a bona fide occupational qualification.) Appropriate procedures shall be adopted or the promotion of this principle in every phase of University operations. Furthermore, affirmative action will be taken to ensure that opportunities afforded by the University are fully available to the handicapped, women, and minorities. The University will make every reasonable accommodation to enable the handicapped to undertake work or study for which they qualify.

The University is also committed to the principle prescribed in Title IX of the Education Amendments of 1972, which specifically prohibits discrimination on the basis of sex in educational programs or activities which receive Federal funds.

Any student, employee or applicant for admission or employment who believes that he/she has not been dealt with by this University in accordance with the principles and requirements stated above may address the Office of Affirmative Action, George Mason University, and then state the facts that occasioned the complaint, present any relevant documents or correspondence, and request assistance in resolution of the matter.

(GSAO 5/78)
INSTRUCTIONS

(1) Application Deadlines: June 15 for Fall semester; November 15 for Spring semester; March 15 for Summer Session. Applications and all supporting documents must be received before these deadlines.

(2) Documentation: Application and all required documents must be received by the Graduate School Admissions Office by the above dates to ensure consideration for the requested semester. Please do not submit the application or supporting documentation to the department in which you wish to study. All documents become the property of George Mason University.

(3) Departmental School Entrance Requirements for Admission as a DEGREE Student or as a Provisional Student:

<table>
<thead>
<tr>
<th>DEPARTMENT/SCHOOL</th>
<th>LETTERS OF RECOMMENDATION</th>
<th>TEST SCORES</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>3</td>
<td>GRE Aptitude &amp; Advanced</td>
<td>GPA of 3.0 or higher</td>
</tr>
<tr>
<td>Business Administration</td>
<td>3</td>
<td>GMAT (formerly ATGSB)</td>
<td>School Evaluation Form</td>
</tr>
<tr>
<td>Economics</td>
<td>none</td>
<td>GRE Aptitude</td>
<td>—</td>
</tr>
<tr>
<td>Education</td>
<td>3</td>
<td>none</td>
<td>Proof of teaching certificate required for most programs</td>
</tr>
<tr>
<td>English</td>
<td>none</td>
<td>none</td>
<td>—</td>
</tr>
<tr>
<td>History</td>
<td>2</td>
<td>GRE Aptitude &amp; Advanced</td>
<td>Departmental Form</td>
</tr>
<tr>
<td>Mathematics</td>
<td>3</td>
<td>none</td>
<td>—</td>
</tr>
<tr>
<td>Psychology</td>
<td>3</td>
<td>GRE Aptitude</td>
<td>Dept. Forms. See catalog for counseling &amp; clinical</td>
</tr>
<tr>
<td>Public Affairs</td>
<td>3</td>
<td>Optional requirement</td>
<td>Resumé if mid-mgt</td>
</tr>
<tr>
<td>Spanish</td>
<td>2</td>
<td>none</td>
<td>—</td>
</tr>
</tbody>
</table>

Separate and complete OFFICIAL TRANSCRIPTS* are required from each institution attended.

(4) Departmental Entrance Requirements for Admission as a Non-Degree Student (one who does not wish to pursue a degree OR who can not supply documentation by deadline): Transcript showing that a baccalaureate degree has been earned at an accredited institution. If undergraduate prerequisite courses were not taken as part of baccalaureate degree then you must furnish transcript(s) showing completion of them elsewhere. Departmental forms must be submitted if required for admission.

(5) Responsibility of Applicant: It is the applicant’s responsibility to request that ALL required documents, including OFFICIAL TRANSCRIPTS* and letters of recommendation, be submitted to the Graduate School Admissions Office at George Mason University. No final action will be taken on an application until all required documents have been filed with the Graduate School Admissions Office. If more than one institution was attended, separate and complete transcripts are required from each for degree and provisional applicants.

(6) Graduate Programs Offered:

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

Master of Arts in Teaching
- History

Master of Science
- Biology
- Mathematics

Master of Public Administration

Master of Business Administration

(7) Virginia Residency: If you wish to claim status as a Virginian for purposes of fees and tuition, you must complete a Virginia Domicile Classification form. This form will be sent to you after receipt of your application for admission. If you do not return the form, you will be classified as a non-Virginian. See the Graduate Catalog for explanation.

(8) Application and all required documents should be sent to:
GEORGE MASON UNIVERSITY, Graduate School Admissions Office, 4400 University Drive, Fairfax, Va. 22030.

(9) Please attach a $10.00 check or money order to your application. This is a non-refundable fee.

(10) For further information, please consult the Graduate Catalog or call 323-2104.

*OFFICIAL TRANSCRIPTS are those sent directly from issuing institutions to the Graduate School Admissions Office.