

# 2000-2001 Graduate Calendar

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<b>Important Deadlines</b>	<b>Fall 2000</b>	<b>Spring 2001</b>	<b>Summer 2001</b>
Early registration and fee payment begins	4 April	31 October	*
Regular registration and fee payment begins	28 August	8 January	7 May
First day of classes	28 August	8 January	*
Last day to register without penalty	4 September	22 January	*
Last day to withdraw from the university with cancellation of tuition charges and refund **	11 September	22 January	*
Degree application for graduation due to the Graduate School office	2 October	12 February	14 June
James Madison Day		15 March	
Comprehensive Examination deadline	17 November	10 April	20 July
Comprehensive Examination written results due to the Graduate School office	8 December	26 April	11 July
Thesis/Dissertation/Practicum due to the Graduate School office	28 November	17 April	11 July
Incomplete work ("I" Grade) due to instructor for course work taken previous term	4 December	20 April	*
Incomplete work ("I" Grade) change due to the Office of the Registrar	8 December	27 April	27 July
Final Examinations	11-15 December	30 April - 4 May	*
Commencement	15 December	5 May	27 July
Holidays (classes do not meet)			
Fourth of July			4 July
Thanksgiving holiday begins	22 November		
Martin Luther King day		15 January	
Winter Break begins	15 December		
Spring Break begins		5 March	

As departmental and school deadlines vary for both application review and other materials, please refer to the relevant section of the catalog or contact the department or school.

\*\* Refer to the Schedule of Class for registration, fee payment and information which allows for change in class load but not withdrawal from the university. You may find additional information at <http://www.jmu.edu/registrar>.

\* Refer to the 2001 Summer Schedule of classes for registration, fee payment, final examination schedules and withdrawal information for the individual summer sessions.

# Introduction

## The University

Founded in 1908 and located in the center of Virginia's famous Shenandoah Valley, James Madison University is a public, comprehensive university and is the only university in America named for James Madison, the fourth president of the United States. The university offers programs on the bachelor's, master's, educational specialist and doctoral levels. JMU provides a total education to students – one that has a broad range of the liberal arts as its foundation and encompasses an extensive variety of professional and pre-professional programs, augmented by a multitude of learning experiences outside the classroom. The quality of the JMU experience has been recognized repeatedly in many national publications.

James Madison University is a coeducational, state-aided university operated by its own board of visitors. As a comprehensive university, JMU offers programs in the liberal arts, sciences, business, education, fine arts, communication, and health and human services, in addition to 30 graduate majors.

JMU has been popular with prospective college students in recent years with faculty and enrollment doubling under the leadership of Dr. Ronald E. Carrier, JMU president 1971-1998. The university receives approximately 15,000 applications for admission each year but can enroll only about 3,500 freshmen and transfer students annually.

Total enrollment for the 1999–2000 session was 14,814. This total included 13,668 undergraduate students and 1,146 students taking graduate courses or other classes beyond the baccalaureate level. The JMU student body is composed of around 58 percent women and 42 percent men.

JMU draws significant numbers of students from the Shenandoah Valley, northern Virginia, and the urban areas of Richmond, Norfolk and Roanoke. About 69 percent of JMU students are Virginians. The largest numbers of out-of-state students come from Maryland, New Jersey, Pennsylvania and New York.

The majority of JMU undergraduate students live in university housing. Limited campus housing is available for graduate students during the regular term. The JMU Center for Off-Campus Living assists students in finding available housing in the area.

JMU has 91 major campus buildings on 472 acres, including a 31-acre farm. Nearly \$143 million in new facilities and improvements have been added since 1975.

JMU offers students a full program of extracurricular and social programs as well as a diversified program of intercollegiate and intramural athletics.

## History

In its 90-year history, JMU has grown from a state normal and industrial school for women to today's coeducational comprehensive university.

The university was established by the Virginia General Assembly in 1908 as the State Normal and Industrial School for Women at Harrisonburg.

In 1914, the name of the university was changed to the State Normal School for Women at Harrisonburg. Authorization to award bachelor's degrees was granted in 1916. During this initial period of development, the campus plan was established and six buildings were constructed.

The university became the State Teachers College at Harrisonburg in 1924 and continued under that name until 1938, when it was named Madison College in honor of the fourth president of the United States. In 1977, the university's name was changed to James Madison University.

The first president of the university was Julian Ashby Burruss. The university opened its doors to its first student body in 1909 with an enrollment of 209 students and a faculty of 15. Its first 20 graduates received diplomas in 1911.

Dr. Samuel Page Duke became the second president of the university in 1919 upon the resignation of Burruss, who became president of Virginia Polytechnic Institute and State University. During Duke's administration, nine major buildings were constructed. In 1946, men were first enrolled as regular day students.

Dr. G. Tyler Miller became the third president of the university in 1949, following the retirement of Duke. During Miller's administration, from 1949 to 1970, the campus was enlarged by 240 acres and 19 buildings were constructed. Major curriculum changes were made, and in 1954 the university was authorized to grant master's degrees. In 1966, by action of the Virginia General Assembly, the university became a coeducational institution. The presidency of Dr. Ronald E. Carrier followed.

Dr. Linwood H. Rose was named JMU's fifth president in September, 1998. Before being named president, Rose had served as a member of the institution's administration for 23 years, including service as executive vice president and chief operating officer.

## JMU Mission Statement

We are committed to preparing students to be educated and enlightened citizens who will lead productive and meaningful lives.

## Location

JMU is located in Harrisonburg, a progressive city of 34,000. The area, located in the heart of Virginia's historic Shenandoah Valley, is flanked by the Blue Ridge Mountains on the east and the Alleghenies on the west.

Harrisonburg is at the intersection of three major highways: Interstate 81, U.S. 33 and U.S. 11. The JMU campus entrance is located just off Interstate 81 and is a two-hour drive from Richmond, Roanoke and Washington, D.C.

## Academic Mission Statement

We provide a quality educational experience that meets the changing needs of our students in society and are dedicated to achieving the highest level of excellence within our academic programs. In our programs, we strive to focus on the student as an individual and as a member of the global community. Our faculty members are dedicated mentors who are scholars, innovative teachers, and models of responsibility and accountability. Our staff members are creative and talented colleagues who are committed to providing a supportive environment that facilitates learning and development.

## Goals

- To provide a framework that permits each student to accept responsibility for lifelong pursuit of knowledge
- To incorporate the principles of active learning, critical thinking, global perspectives and cross-disciplinary experiences throughout the university's curriculum
- To provide a strong cross-disciplinary liberal arts foundation through a rigorous and coherent General Education Program which enhances knowledge, skills and experience
- To provide strong major and professional programs that are interrelated with our General Education Program
- To provide strong graduate programs that are meaningful extensions of the undergraduate curriculum and that meet important societal needs
- To provide continuing professional development and outreach services that enhance the economic development of the university's service region

- To promote the use of technology in creating, storing, accessing, analyzing and synthesizing information
- To provide opportunities for learning experience external to the university that result in real world application of knowledge
- To provide opportunities for assessing the attainment of program objectives for learning and development
- To provide opportunities for faculty growth in the areas of scholarship, teaching, service and mentoring
- To provide opportunities for staff development in areas that support important components of our mission

## Administration

The general responsibility for the administration of the university has been assigned to the president, who is appointed by the JMU Board of Visitors. When the board is in recess, its executive committee may exercise the board's power.

Assisting the president in the administration of the university are an executive vice president, as well as divisional vice presidents for academic affairs, administration and finance, development, student affairs and university relations, and external programs. Appointment to these positions, to other administrative offices, and to the university's faculty and staff are made by the board upon the recommendation of the president.

In addition to the Graduate School, there are five undergraduate colleges at JMU:

- College of Arts and Letters
- College of Business
- College of Education and Psychology
- College of Integrated Science and Technology
- College of Science and Mathematics

Deans, department heads, school directors and the university's more than 800 faculty members (79 percent hold doctoral degrees) report to the vice president for academic affairs in all matters pertaining to instruction.

## The Graduate School

Graduate work entails focused study whereby a student achieves mastery of a specific area of scholarship. Because of this emphasis, graduate study differs from a baccalaureate program involving the general or liberal accumulation of knowledge.

The JMU Graduate School was established in 1954, when authorization by the State Board of Education made it possible for the university to offer programs leading to the Master of Science in Education degree. The Southern Association of Colleges and Schools approved these graduate programs the same year.

In 1960, the Virginia Board of Education authorized the university to offer programs leading to the Master of Science degree with a major in biology. With the Virginia Council of Higher Education's approval in 1974, this degree was extended to include a major in physical education and later a major in speech pathology. In 1977, a major in health sciences was added. In 1984, approval was given to offer a major in computer science.

Subsequent actions of the state council permitted the university to offer the Master of Arts degree in English, psychology and history; the Master of Business Administration degree; and the Master of Science in accounting degree. In 1973, authorization was given to offer the Master of Arts in Teaching and the Master of Education degrees. The Master of Fine Arts degree was approved in 1979. The Master of Music degree, the Master of Public Administration degree and the Educational Specialist degree in school psychology were authorized in 1980. The Doctor of Psychology was authorized in 1995.

### Mission

- Convey advanced knowledge in a specific field of study
- Provide enhanced levels of professional competence
- Foster an understanding of and respect for scholarly research
- Bolster a sense of personal satisfaction
- Inculcate a sophisticated appreciation of the techniques of continued, lifelong intellectual growth
- Enhance the application and utilization of advanced study

These often-interrelated goals are achieved through coherent, orderly programs of study encompassing investigation and/or supervised practical experience.

As part of a comprehensive university supported by public funds, the JMU Graduate School is committed to serving the needs of the Commonwealth of Virginia and the region. The Graduate School supports the continuation and development of diverse, innovative programs by building on existing strengths rather than unnecessarily duplicating the offerings at other institutions.

JMU graduate programs encourage students to develop strengths in critical and creative thinking, communication,

and applied skills. A balanced combination of theoretical and practical studies in each academic program is intended to prepare the successful graduate for advancement in the workplace, future educational opportunities, informed participation in today's increasingly more complicated society and leadership in community affairs.

### Administration

Significant in the organization and administration of the Graduate School are the university's Graduate Council, the graduate faculty as a body and the dean of the Graduate School.

## The Graduate Council

To accomplish the university's comprehensive objectives, the Graduate School develops broad policies and long-range plans. The following need Graduate Council approval:

- Addition of new graduate programs
- Deletion of graduate programs
- Addition or deletion of graduate courses
- Broad graduate admission
- Establishment of standards for graduate faculty
- Appointment of graduate faculty

### Graduate Council Membership

- Dean of the Graduate School, chair
- At least one graduate faculty representative from each academic college
- A representative from Carrier Library
- Two representatives from academic affairs
- Two graduate students

### Graduate faculty appointments

In addition to engaging in graduate instruction and research, members of the graduate faculty hold appointments in the undergraduate colleges at JMU.

Through the Graduate Council, these faculty members develop general policies and administrative procedures for graduate programs. The graduate faculty as a body has responsibility for final approval of graduate degrees to be awarded.

## Accreditation

JMU is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award the bachelor, master, educational specialist and doctor of psychology degrees. The Commission on Colleges of the Southern Association of Colleges and Schools can be contacted at

1866 Southern Lane  
Decatur, Georgia 30033-4097  
(404) 679-4501

**JMU is Accredited by the**

American Assembly of Collegiate Schools of Business  
American Chemical Society  
American Dietetic Association  
American Psychological Association  
Council for Accreditation of Counseling and Related Educational Programs  
Council on Social Work Education(baccalaureate level)  
Educational Standards Board of the American Speech-Language-Hearing Association  
International Association of Counseling Services  
National Association of School Psychologists  
National Association of Schools of Art and Design  
National Association of Schools of Music  
National Association of Schools of Theatre  
National Athletic Trainers' Association  
National Council for Accreditation of Teacher Education  
National League for Nursing  
Society for Public Health Education  
Virginia Board of Nursing  
Virginia State Board of Education.

**JMU is a member of the**

American Association of Colleges for Teacher Education  
American Association of State Colleges and Universities  
American Council on Education  
Association of American Colleges and Universities  
Association of Governing Boards of Universities and Colleges  
Association of Computing Machinery  
Association of Virginia Colleges and Universities  
College and University Personnel Association  
Council of Graduate Schools  
Council of Southern Graduate Schools  
National Association of College and University Business Officers  
National Association of Student Personnel Administrators  
Southeastern Universities Research Association

**and a corporate member of the**

American Association of University Women.

## JMU Libraries

JMU Libraries, consisting of Carrier Library, the Music Library and CISAT Library Services, support research, study and instruction in the use of information resources at JMU. The libraries house about 670,000 titles, including books, government documents, periodicals and audio-visual materials and nearly a million microform pieces. As an authorized U.S. Government Document Depository, Carrier Library receives thousands of selected documents on a regular basis throughout the year. Along with subscriptions to more than 2,300 periodicals, full text articles from thousands of periodicals are provided online through networked computers as a result of membership in VIVA, the Virtual Library of Virginia. Items not available within the libraries or through online resources can be retrieved through borrowing arrangements with virtually any academic library in the country.

The library web site, <http://library.jmu.edu>, serves as a gateway to the services and collections of the JMU Libraries, as well as local and worldwide information resources.

The web site provides access to the online catalog LEO, more than 200 electronic databases and subject guides which list and describe the most important print and electronic sources in each field of study. Services such as electronic reference and Interlibrary Loan are also made available via the library web. More than 100 personal computers are provided in the public areas of the libraries. Most of the resources made available on the library web are accessible from any computer on campus and from remote locations.

One of the libraries' principal goals is to educate users, especially students, by providing them with lifelong learning skills that will enable them to find, use and evaluate information in all formats. Self-instruction modules, entitled "Go for the Gold," are available on the library web and supplement instruction sessions offered in library classrooms. Reference librarians are available, on a walkup basis or by appointment, to answer questions and assist students with research. The liaison program links a librarian to each academic department or school.

Liaison librarians provide a wide variety of services, including library instruction for course-related activities, collection development and consultation with individual faculty members and students.

The Music Library serves the students and faculty members of the School of Music, as well as offering its specialized resources to the greater university community. CISAT Library Services serves the needs of students and faculty on the east campus primarily through electronic resources, reference service and document delivery.

## **Educational Technologies**

Educational Technologies is primarily an academic support unit within the Academic Affairs division and is devoted to supporting the use of technology in teaching and learning in all units at James Madison University. Educational Technologies has a variety of units to support its mission, including the Media Resources Center, the Center for Instructional Technology, and Distributed and Distance Learning Services. Educational Technologies also serves as a liaison with the University's technical infrastructure and computing support personnel.

### **Media Resources Center**

The Media Resources Center in Carrier Library acquires and houses commercially available educational software in non-print media and computer formats, loaned for use in instruction and study. For faculty and staff, the center provides a media rental service for items not in its collections and a reference service for identifying specific software resources. It also facilitates the scheduling and taping of teleconferences and other satellite programming.

In addition, the Media Resources Center provides teaching and learning support to faculty, staff, and students through hardware and software available to users of classrooms and other learning facilities. Technical services staff coordinate the development and perform the installation and maintenance of technology systems in general classrooms and many special facilities. They also offer consultation on instructional technology projects and purchases undertaken by other units. Portable equipment is provided for loan and use in locations without technology. The staff conduct training support for users of all installed and portable equipment, as well as repair services for non-computer media technology owned by the campus.

For further information regarding services, please call (540) 568-6610 or visit the Media Resources web site at <http://www.jmu.edu/mediares/>.

### **Center for Instructional Technology**

The Center for Instructional Technology (CIT) is a central resource for the development and exploration of instructional technologies. CIT staff and student associates are available to serve faculty and staff on a walk-in basis or by scheduling an appointment for focused assistance. CIT staff work with faculty on instructional planning, design of instructional materials, production of instructional

materials and coordination of resources for project implementation. In the walk-in production facility, faculty, staff and students can check out digital cameras, master a CD-ROM, scan flat art and 35mm slides, and create color prints, transparencies, digital graphics, publications, classroom presentations and web pages. In addition, a technology teaching station is available to practice professional and classroom presentations.

The center is also available for JMU students. Students assisting faculty members with the development of materials may use the center during open hours after the requesting faculty member has signed an authorization form. Students working on class projects may use the center during evening hours.

The center offers a variety of faculty development opportunities including hands-on workshops, in-depth technology concentrations, informal discussions and scheduled project support sessions. The center's instructional technology grants program, mGrants, encourages faculty to develop and implement creative methods of instruction. These grants provide faculty with consulting services, support services and funding to design and develop course materials, experiment with new teaching models and promote active learning.

The center provides a multi-platform environment of PC and Macintosh workstations. Color and laser printers are available. The center also houses a CD-ROM library of rights-cleared digital photographic images, black and white clip art and color images of places, people and JMU events. Sound and digital video clips are also available.

For more information about the CIT, visit the website at <http://www.cmm2.jmu.edu/cit/>.

### **Distributed and Distance Learning Services**

Distributed and Distance Learning Services (DDLS) is a support facility for online learning activities at JMU. This support unit works with faculty and other stakeholders in the provision of distributed and distance learning courses, academic programs offerings and online certification opportunities. DDLS supports faculty members with a variety of services, including training, online resources and consulting. DDLS collaborates with other university divisions to provide a one-stop gateway to services for the university's distance learning students. DDLS hosts the university's online learning site, JMUOnline. For more information, visit the website at <http://www.jmu.edu/ddls>.

## Computing Support

The university offers many computing services for students, faculty and staff. In addition to several computing systems for administrative purposes, the university also operates two central computing systems for general use: a VMS system and an HP/Unix system. These systems have access to electronic mail, bulletin boards, the Internet and the campus-wide information system. They also serve personal web pages.

A dozen computing labs with a total of more than 300 Windows and Macintosh computers are scattered throughout campus. They have a variety of word processing, spreadsheet, graphics, database and statistical software. All lab computers are connected to the campus network and have access to central computing systems, the Campus Wide Information System (CWIS) and the Internet.

JMU's Campus Wide Information System integrates a collection of online information relevant to JMU and its community. Academic, administrative, event and directory information is found in the CWIS. To access the CWIS through the World Wide Web, visit <http://www.jmu.edu>.

## Campus Network

The university's campus network connects most buildings on campus for high-speed data communications. About 25 file servers and lab computers for faculty and staff members provide extended disk space, shared software and data files, and shared hardware, such as printers. Any computer connected to the campus network is also connected to the Internet.

## The HelpDesk

The HelpDesk is a troubleshooting hot line and information desk. HelpDesk consultants respond to questions and problems from the JMU community on a wide range of computing topics. The HelpDesk is located in Frye Hall. It can be reached by phone at (540) 568-3555, by e-mail at [help\\_desk@jmu.edu](mailto:help_desk@jmu.edu) and through the Campus Wide Information System home page. Many guides and handouts are available online and some are also available in print from the HelpDesk.

# The Graduate Program

<http://www.jmu.edu/gradschool>

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## Graduate Study at JMU

All programs of study leading to advanced degrees are available to students enrolled in the regular academic year sessions (including evening programs) and in the summer session.

Graduate degrees are conferred upon students who satisfactorily complete stated requirements. An individual program of study is planned by each student and the student's adviser in conformance with specific requirements for the degree. Programs of study require the approval of the major department head or director and the dean of the Graduate School.

Although the requirements for graduate degrees at JMU include 30 or more credit hours, the student should be aware that this is a minimum requirement and should in no way be regarded as a limiting factor in the formulation of a program of graduate study. It should be clearly understood that the graduate degree is not given as a certificate of residence or for duties performed but is awarded only to students who give evidence of sound scholarship and proficiency in research in their fields of specialization.

### Major Programs

#### Doctor of Psychology (Psy.D.)

- Assessment and Measurement •
- Combined Clinical, School and Counseling Psychology •

#### Educational Specialist (Ed.S.)

- Counseling Psychology •
- School Psychology •

#### Master of Arts (M.A.)

- Art •
- English •
- History •
- General Psychology •
- School Psychology •
- Technical and Scientific Communication •

#### Master of Arts in Teaching (M.A.T.)

- Education
- English
- History

#### Master of Business Administration (M.B.A.) •

#### Master of Education (M.Ed.)

- Counseling Psychology •
- Education †
- Hearing Disorders •
- School Administration •
- Special Education •

#### Master of Fine Arts (M.F.A.) •

#### Master of Music (M.M.)

#### Master of Public Administration (M.P.A.)•

#### Master of Science (M.S.)

- Accounting •
- Biology •
- Computer Science •
- Health Sciences •
- Kinesiology •
- Speech Pathology •
- Technical and Scientific Communication •

#### Master of Science in Education (M.S.Ed.)

- Adult Education/Human Resource Development
- Health Sciences

- Minor not authorized

† Five concentrations are available. See the Education section.

### Minor Programs

Students from those programs allowing minors may choose from the following options:

- Art
- Biology
- English
- Health Sciences
- Higher Education
- History
- Kinesiology
- Mathematics
- Music
- Political Science
- Psychology
- Secondary Education

Students majoring in programs leading to the Master of Science in Education degree may minor in either secondary education or higher education.



# Admission to the Graduate Program

*Dr. Dorothy A. Boyd-Rush, Dean*

For information, call (540) 568-6131; fax (540) 568-6266

<http://www.jmu.edu/gradschool>

Only the following materials should be submitted (preferably in one large envelope) directly to the Graduate School, MSC 2602:

- Official graduate application form
- \$50 nonrefundable application fee
- Official transcripts (in individually sealed envelopes from all previously attended institutions) \*
- Official standardized test scores (GRE or GMAT)

\* Graduate applications will not be processed without application fees. Fee waivers are not available.

\* Official transcripts and standardized test scores may be submitted separately from the application and fee; however, to ensure faster processing, all required materials should be submitted in one envelope.

Any supporting documentation or additional program-specific requirements should be mailed in a separate envelope directly to the graduate program to which application is being made. The envelope containing these additional materials should be clearly marked "graduate application materials." Many departments/schools have specific deadlines for application review; be sure to check with the specific program area to see if additional deadlines apply. Applications which are not completed within 150 days will not be processed

## Application Deadlines

The Graduate School has a rolling admission policy. However, to guarantee your application will be reviewed in time to meet your anticipated date of registration, you should submit your completed application by the following dates:

Summer session – April 1

Spring semester – November 1

Fall semester – July 1

Additional admission information is required for international students.

Graduate program coordinators will have 150 days from the program application deadline or from the date mailed from the Graduate School to the program coordinator to act upon student applications. Applications that have not been acted upon by the stated deadline will receive notification from the Graduate School that their application has not been reviewed favorably and that they will not be accepted into the Graduate School. Applicants are advised to apply only if they meet (or can quickly meet) all minimum criteria.

## International Students

JMU encourages applications for graduate study from qualified international students. In order for the university to qualify with the U.S. government as an educational institution for international students, certain criteria must be determined.

Requests for information concerning federal regulations, visa, health and insurance should be directed to:

Dr. Bijan Saadatmand, Director, Office of International Student and Foreign Faculty Programs,  
(540) 568-7065

[saadatbx@jmu.edu](mailto:saadatbx@jmu.edu)

<http://www.jmu.edu/international/intlstudents/>

Requests for application, admission or any academic issues must be forwarded to the Graduate School. All initial inquiries must be conducted through the Graduate School. Correspondence with particular departments or program coordinators is strongly discouraged.

In addition to general materials needed, all international students applying for admission to the Graduate School must satisfy the following requirements:

- Have the necessary ability and educational background to benefit from experiences in this institution
- Demonstrate proficiency in English sufficient to carry a full program of graduate study through submission of a satisfactory score on the Test of English as a Foreign Language  
For more information, visit <http://www.toefl.org>
- Have all funds necessary for expenses during the entire period of the student's stay without resorting to employment while in the United States (although the university has no financial assistance reserved exclusively for international students, after acceptance they may compete for appropriate financial aid)
- Send official transcripts directly to JMU from the institution granting the baccalaureate degree. An external evaluation of the academic record must be submitted to ensure that it is comparable to an American baccalaureate degree
- Allow 12 months between application for admission and the semester the applicant requests to enroll at the university, if the student is residing outside the United States
- Submit an application and \$50 nonrefundable application fee (in U.S. dollars) six months in advance of the intended term of entry if transferring from another college or university in the United States or after completing a baccalaureate degree in a U.S. institution

- Enter the United States on a valid student or other visa  
The university has a director of international student services to assist all international students with adjustment to the university.

## Reserve Graduate Credit

### Admission to Graduate Courses of Undergraduates Seeking Graduate Credit

Undergraduate students nearing completion of their undergraduate degrees may take up to nine hours of graduate course work for reserve graduate credit during their senior year after being fully accepted to the Graduate School in the usual manner. Graduate credit earned prior to completion of an undergraduate degree is held in reserve to be applied later toward a graduate degree.

Written permission to seek reserve graduate credit must also be obtained from the dean of the Graduate School prior to enrollment in these courses; forms are available in the Graduate School office or online from the graduate school website. It is the student's responsibility to obtain all required signatures. Students enrolled in five-year programs must abide by the policies governing reserve graduate credit stated above.

Approval for reserve graduate credit does not imply that credit so earned will be accepted at another graduate school. Credit for the same course is not given toward both graduate and undergraduate degrees.

## Entrance Examinations

In addition to other student achievement records as a basis for admission to the Graduate School, standardized examination scores offer evidence concerning the qualifications of students seeking to undertake graduate work.

All JMU graduate programs must consider the scores from an appropriate and commonly used standardized test, such as the Graduate Record Examination (GRE) and Graduate Management Admission Test (GMAT) in the admission process. Applicants must also achieve a satisfactory score on the entrance examination required by the program to which admission is sought.

## Graduate Record Examination

An official record of scores on the general test of the Graduate Record Examination must be submitted with the student's application for admission to the Graduate School. A minimum score of 25 percent is expected. For information on the GRE, visit <http://www.gre.org>.

The subject test in the area of specialization may be required upon recommendation of the department head, school director or major adviser.

Test scores are unacceptable if they are more than five year old.

## Graduate Management Admission Test

The GMAT measures general verbal and mathematical skills and is designed to aid assessment of student qualifications for advanced study in business and management. A minimum score of 25 percent is expected. For information on the GMAT, visit <http://www.gmat.org>.

Prior to admission, applicants for the Master of Business Administration and the Master of Science in accounting degrees will be required to take the Graduate Management Admission Test. Applicants for the Master of Public Administration degree may take either the GRE or the GMAT.

Test scores are unacceptable if they are more than five years old.

## Application

Application may be made to only one graduate program at a time. No provision is made at JMU for dual-program graduate study. Application forms and materials may be obtained from the Graduate School. If requested, the information regarding financial aid, GRE and GMAT testing, and class schedules for the following semester can also be mailed or picked up at the Graduate School office.

The current graduate catalog may be purchased from the JMU Bookstore in Warren Hall, or downloaded or accessed at <http://www.jmu.edu/gradschool/catalog/00>.

## Offer of Admission to the Graduate School

The dean of the Graduate School will send a written offer of admission to an applicant who has been accepted. This letter specifies the effective date of admission (which normally coincides with the semester requested on the application), the category of admission being offered and the name of the faculty adviser assigned to the applicant. The offer of admission is good for one year.

*The applicant **must** send a written acceptance or rejection of the offer of admission to the Graduate School admission office as soon as a decision on graduate study has been made.*

A student who enrolls at another institution is considered to have rejected the university's offer of admission. An individual whose offer of admission has lapsed must submit a new application and fee to be reconsidered for admission at a later date.

## Reapplication

Students who are accepted but do not enroll within a one-year period from the semester date for which they were accepted must obtain new application forms from the Graduate School, initiate the application process as new students and pay all fees as stated in the application process.

## Reactivation

Students who have enrolled previously but have taken no course work during a two-year interval will be deactivated. Once deactivated, a student must reapply to the Graduate School, submitting a new application form with required application fees, to continue with graduate studies. Transcripts of any course work taken during the two-year interval from any other college or university will also be required.

## Change of Degree or Program

Admission to the Graduate School in one program does not entitle a student to transfer to another department or school without applying and being accepted by the new department or school as a new student. Any student wishing to change a degree or major must submit a new application to the Graduate School as well as all materials and fees required of a new applicant.

## Attendance and Continuance

Once admitted, it is anticipated that a graduate student will enroll in classes each semester until the degree is awarded. After beginning work on the thesis or dissertation, students are required to enroll in thesis or dissertation continuance each semester. (See Page 14 for thesis/dissertation continuance.) All graduate students must be registered during the semester they graduate. (See Page 14 for comprehensive continuance.)

## Time Limitations

Graduate students must complete all degree requirements within six years. Academic work, including transfer credit, taken more than six years before the date at which the master's or doctoral degree is awarded may not be used to satisfy the degree requirements. A student may, however, submit a petition through his or her adviser and department head or school director to the dean of the Graduate School to receive extensions of time in the event of extenuating circumstances.

A student whose status is deactivated due to a two-year lapse in course work at this university, and later is reactivated through application to the Graduate School, may not count the six-year time limit as beginning on the date of reactivation.

## Admissions Classifications

Applicants may be admitted to the Graduate School or to graduate study at the university under three classifications: unconditional, conditional or provisional admission.

### Unconditional Admission

Unconditional admission is admission to a graduate program without reservation and indicates a sound academic background in preparation for a specific program of graduate study.

### Conditional Admission

Conditional admission is admission to a graduate program with reservations as indicated in the letter of acceptance. Such reservations are usually deficiencies in undergraduate preparation which must be removed by the applicant. Upon removal of the conditions, the student may make a written request directed through their adviser to the dean of the Graduate School for a change of status.

### Provisional Admission

Students who have not fully met the requirements of the program or school to which admission is sought may be granted admission with a provisional status as prospective candidates for a degree. Such students must have as their initial objective the removal of provisional conditions to achieve advancement to regular status.

Provisional admission is a probationary status; the requirements for advancement to regular status are specified in the student's provisional admission letter. To change from provisional to regular status, students must submit a written request to the major adviser. The adviser will forward the request to the dean of the Graduate School.

Approval for graduate credit earned while enrolled in a provisional status will be determined by the dean of the Graduate School upon recommendation of the appropriate department head or school director. Up to nine hours of graduate credit taken in this status may be transferred to a degree program upon the recommendation of the department head or school director and approval of the dean of the Graduate School. Only six hours of 500-level workshop courses can be applied to a degree program. Regulations concerning unsatisfactory progress (Page 15) apply to this classification.

Post-baccalaureate students wishing to enroll in graduate courses, but who are not admitted to the graduate school, may do so as special students.

## Office of Continuing Education

The mission of the Office of Continuing Education is to use available educational technology to extend the university's resources to citizens in order to provide them with continuing professional development and outreach services that enhance their personal growth and stimulates economic development.

The continuing education office administers credit courses and coordinates noncredit continuing education programs. The university recognizes that many people have educational needs but cannot or do not desire to attend college on a full-time or degree-seeking basis. JMU attempts to meet those needs.

Credit courses leading to graduate degrees are offered off campus when there is demand and sufficient enrollment to support the courses. Off-campus credit instruction features the same course work that is available on campus. Special customized training is provided when requested by community or institutional groups.

The university provides teachers with in-service training by offering courses designed for teacher licensure, relicensure and graduate degrees in selected professional teaching fields. JMU provides graduate courses pursuant to the Master of Business Administration in Charlottesville and the Master of Science (speech-language pathology) in northern Virginia. In addition to individual credit and non credit courses and complete degree programs, JMU offers a variety of professional certificate programs for workforce training and development.

The university also offers on-campus courses through the Office of Continuing Education to promote lifelong learning.

### **Post-baccalaureate or Post-master's Students**

Graduates of accredited institutions who wish to take courses and who do not wish to pursue advanced degrees may enroll as special students. These nondegree-seeking post-baccalaureate or post-master's students may register for classes but are not admitted to the Graduate School.

They may choose to take classes on a nondegree-seeking basis because they do not currently desire to work toward a graduate degree or because the university does not offer a degree higher than the one they already hold.

Post-baccalaureate or post-master's students may enroll in undergraduate and 500-level courses. They may also register, with prior written approval, for 600 or 700 graduate-level courses.

Students who are enrolled as special students should understand that graduate work taken in this status carries full graduate credit but does not necessarily apply toward a degree at JMU or imply preferential consideration when applying to the Graduate School.

If at a later date, the student applies for and enrolls in the Graduate School, a maximum of nine credit hours taken at the post-baccalaureate or post-master's level may be applied to a degree program upon the recommendation of the department head or school director and approval of the dean of the Graduate School. Like all courses within a graduate program, such courses must have been completed during the six years immediately prior to the conferring of the degree.

Graduates of an accredited institution who wish to enroll in 600-level graduate courses offered by the College of Business must be admitted as degree-seeking graduate students.

### **Transient Special Students**

A graduate student holding a baccalaureate degree from an accredited institution and presently working toward a graduate degree at an accredited institution other than JMU is known as a transient special student.

Transient special students must re-enroll each semester at JMU and may take up to 11 hours of graduate credit per semester.

In addition to the enrollment form for special students, transient special students must submit documentation of good standing at their home college or university and must specify that the courses undertaken at JMU are to be transferred to the home institution. These requirements must be completed prior to registration each semester. Generally, these courses should not be available at the home institution during that semester.

For further information pertaining to continuing education, contact

Office of Continuing Education  
MSC 2502  
James Madison University  
Paul Street House  
Harrisonburg, VA 22807  
(540) 568-7088.

### **Admission of Veterans**

The Graduate School encourages veterans to apply for admission as full- or part-time students. For information contact

Veterans Coordinator  
Office of the Registrar  
MSC 3528  
James Madison University  
Harrisonburg, VA 22807  
(540) 568-6569.

### **Foreign Language**

A reading knowledge of a foreign language is required in those departments or schools which so specify.

# General Regulations

*Dr. Dorothy A. Boyd-Rush, Dean*

For information, call (540) 568-6131; fax (540) 568-6266

Email: [grad@jmu.edu](mailto:grad@jmu.edu)

<http://www.jmu.edu/gradschool>

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Upon enrollment, graduate students accept responsibility to remain current on policies and regulations concerning their programs of study and the Graduate School. Current regulations and policies are updated annually and published in the Graduate Catalog. Further explanations and clarification are readily available in the Graduate School office.

## Faculty Advisers

Each student offered admission to the Graduate School will be assigned a faculty adviser. Department heads, school directors or designated members of the graduate faculty will serve as faculty advisers.

After admission, students should meet with their advisers to select initial courses of study and to plan a program of study.

Advisers are also available to oversee subsequent changes in the program and conduct the final examination and other phases of the specific requirements for the graduate degree.

## First-Time Registration

Students should consult with faculty adviser(s) to plan programs of study prior to initial registration.

Graduate students must register a local address with the Graduate School office prior to initial registration for classes. All local address changes must also be registered with the Graduate School office.

## Application for a Graduate Degree

The Application for a Graduate Degree form must be approved by major and minor (if appropriate) adviser(s) and the major department head or school director. Only six credit hours of 501 workshop courses approved for inclusion in a graduate program may be applied toward a degree. If the student wants to use transfer credits to fulfill degree requirements, these credits – along with an official transcript showing the credits – must appear on Application for a Graduate Degree form and must be forwarded to the Graduate School.

Students are responsible for notifying both the major department or school and the Graduate School when they plan to graduate. Students are also responsible for consulting their advisers or the Graduate School office about deadlines.

Students must take all courses, including supporting courses, on a letter grade (“A-F”) or satisfactory/unsatisfactory (S/U) basis, based on how the particular course was approved. Students do not have flexibility in choosing a grading option.

## Changes in Graduate School Policies and Programs

Because it is the nature of the graduate experience to obtain mastery of a chosen field, each graduate student should understand that published descriptions of degrees establish only minimum requirements. It is the prerogative of each school or department to make changes in programs at any time prior to graduation.

The graduate degree requirements found in this catalog set the minimum standards acceptable by the JMU Graduate School. Students are expected to satisfy any additional departmental or school regulations.

## Transfer Credit

Students who wish to receive graduate credit for courses taken prior to entering the JMU graduate program must submit requests during the first semester of enrollment to their adviser who will forward the request to the dean of the graduate school. A maximum of nine graduate hours will be considered for inclusion in a student’s program, including any hours taken at this university prior to acceptance.

A maximum of nine hours of transfer credit may be considered for inclusion in the student’s program of study upon the approval of the major adviser, minor adviser (if applicable), major department head or school director and the dean of the Graduate School. Forms are available in the Graduate School office. A grade of “B” or better must be earned in courses requested for transfer credit. Courses taken for pass/fail or satisfactory/unsatisfactory grades will not be accepted for transfer graduate credit. An official transcript showing the credits approved for transfer must be forwarded to the Graduate School.

Students who wish to receive graduate credit for courses taken at other accredited institutions prior to entering the James Madison University graduate program must submit requests during their first semester of enrollment.

In all cases, courses considered for transfer of credit must be applicable toward 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 a part of a degree program are not acceptable for transfer to the university. It is the student’s responsibility to furnish evidence that any course presented for transfer of credit would be applicable to a comparable degree at the accredited institution where earned. If this information is not on the official transcript, it must be obtained in writing from the appropriate dean of the institution.

Only nine hours of credit obtained from an accredited college or university may be applied to a student's major program; three hours of credit may be applied to a minor program.

Credits earned to complete a previous master's degree may not be applied to a second master's degree program at JMU. No transfer credit will be approved while a student is in provisional status.

However, previously earned graduate credit as a part of a master's degree program from an accredited institution may be counted toward the degree requirements of the advanced Master of Fine Arts and Educational Specialist degrees.

Specific program of study requirements are discussed in the departmental and school sections of this catalog. Respective programs will have detailed information relative to the acceptance of credit hours toward their respective degrees.

Academic work, including transfer credit, taken more than six years before the date at which the master's degree is awarded may not be used to satisfy the degree requirements.

Students who take their last courses to fulfill their programs of study at institutions other than JMU may not graduate during that semester unless the official transcript for the requested transfer course(s) is received in the Graduate School office prior to the last day of the semester graduation is requested. Otherwise, they must wait until the following semester to graduate.

## Permission to Take a Course Elsewhere After Enrollment

When the need exists, a student enrolled as a degree-seeking student may take graduate courses at another accredited institution with prior approval of the adviser, department head or school director and the dean of the Graduate School. Forms are available in the Graduate School office. It is the student's responsibility to request transfer credit for such courses upon completion and to have an official transcript submitted to the Graduate School office for evaluation of possible transfer credit. Ordinarily, permission is not given to take a course elsewhere for transfer credit during the semester in which the degree is to be awarded.

Students who take their last courses to fulfill their programs of study at institutions other than JMU may not graduate during that semester unless the official transcript for the requested transfer course(s) is received in the Graduate School office prior to the last day of the semester graduation is requested. Otherwise, they must wait until the following semester to graduate.

Forms are available in the Graduate School office in Cardinal House for use in obtaining prior approval of transfer credit hours.

## Correspondence Study

No credit toward the graduate degree will be allowed for courses taken by correspondence study.

## Off-Campus Courses

Off-campus courses are usually offered to part-time students not in residence on the JMU campus. Credit for such courses may be allowed toward the graduate degree provided the course is taught by a member of the graduate faculty of the institution, and the course has the prior approval of the student's adviser and the dean of the Graduate School. Only six hours of 501 workshop courses may be applied to a degree program.

## Receiving Credit

To receive credit for courses, it is the student's responsibility to ensure that courses selected are acceptable to the program being pursued.

## Academic Loads

Status	Hours
Full time	9 or more
Three-quarter time	6
Half time	5
Less than half time	4 or less

A full-time graduate student in a regular semester is one who is carrying nine or more hours of credit.

The classification of graduate students who have been accepted in degree-seeking programs is often considered in determining payment deferment on undergraduate student loans, eligibility for insurance benefits, etc.

The following academic lead guidelines apply to graduate assistants and graduate teaching assistants:

- Graduate assistants and teaching assistants may carry nine credit hours each semester.
- Graduate assistants and teaching assistants planning to register for more than nine credit hours may do so only with prior approval from the dean of the Graduate School.
- Graduate assistants and teaching assistants must pay for any additional credit hours above the nine paid for by their assistantships.
- Graduate assistants and teaching assistants may not take less than the required number of credit hours without prior written approval from the dean of the Graduate School. This underload of classes is allowed only once during a graduate career.

All graduate, research, service and teaching assistants must register each semester for all courses to be covered by the assistantship during the regular registration period(s) and prior to the tuition refund date as outlined in the Schedule of Classes. Students who register for any additional courses after this time will be held personally responsible for additional tuition and fees. As established policy provides, students who drop courses after the tuition refund date will be personally responsible for fees and will receive a grade of "W" for the course. Exceptions will be made only for documented extenuating circumstances and will be handled on a case-by-case basis.

## Employment

The Graduate School recognizes that many graduate students depend upon part-time or full-time employment to meet expenses. Though there is no limit to the number of hours an employed student may take, the student and adviser should realize that a course schedule should take into consideration the demands of employment.

## Course Numbering System

Courses numbered 500 through 900 are graduate courses and may be applied to a graduate program. Post-baccalaureate/post-master's students may register for 600- or 700-level courses with prior written approval.

Courses may be offered concurrently on the 400 and 500 level. In such instances, higher quality and/or additional work will be required of the students registered on the 500 level. Undergraduate students may take 500- and 600-level courses for reserve graduate credit during their senior year by being accepted to the Graduate School. (Refer to Reserve Graduate Credit, page 9)

## Course Level Requirements

At least half of the credits contained in the student's program leading to an advanced degree at JMU will be in courses designated exclusively for graduate students, courses numbered 600 or above. Where the program has a minor, at least six of these 600-level credits must be in the minor.

## Course Registration Requirements for Graduation Semester

All graduate students are required to be registered during the semester they receive their degree from James Madison University. If you are not registered in regular course work, you must register for either comprehensive, thesis or dissertation continuance, whichever is appropriate.

## Thesis, Dissertation, Research Project, Directed Research Continuance

Students completing registration for the maximum hours of thesis, dissertation, research project or directed research are required to register for thesis continuance, dissertation continuance, research project continuance or directed research continuance each semester, including summer, until they have received their degree. Continuance credits carry no credit hour production and do not count toward graduate program requirements.

## Comprehensive Continuance

Students completing all degree requirements except the comprehensive examination are required to register for comprehensive continuance each semester, including summer, until they have passed the comprehensive examination. This credit carries no credit hour production and does not count toward graduate program requirements.

## Honor System

The academic program at JMU operates under an Honor System that dates back to the 1909-10 academic session. Students adopted the present Honor System in order to uphold individual and community integrity. Each student is expected to observe complete honesty in all academic matters and to report instances where another student has violated the Honor System. A student Honor Council administers the Honor System, and every student who matriculates at the university, whether graduate or undergraduate, becomes a member of the Honor System. The university expects the cooperation of faculty members and administrators in upholding this Honor System. The Student Handbook provides full information on the Honor System, and the Honor Council office provides students with assistance in understanding Honor System policy.

The Honor Council encourages all members of the JMU community to familiarize themselves with the Honor Code and Honor System procedures. The Honor Council office is located at Wilson 113. The Honor Council maintains a web page at <http://www.jmu.edu/org/honor>.

## Grading System

Letter Grade		Description	Numerical Value
A	=	Excellent	4.0
B+	=	Very Good	3.5
B	=	Good	3.0
C	=	Poor	2.0
F	=	Failure	0.0
I	=	Incomplete	
W	=	Withdrawal	
S/U	=	Satisfactory/Unsatisfactory [Thesis/dissertation and selected other courses. See course descriptions.]	
NP	=	Not Processed	
NC	=	No Credit	

To qualify for graduation the student must have an average of 3.0 or higher. The student's major department or school may require an average of 3.0 or higher in each department or school in which the candidate for a degree takes a course.

- A grade point average is calculated by dividing the accumulated number of grade points earned by the accumulated number of credit hours attempted. All graduate credits attempted and all graduate grades earned, whether passing or failing, will be used to calculate a student's grade point average.
- A grade point average does not appear on the transcripts of graduate students.
- All graduate courses, including supporting courses, must be taken on a letter grade basis.
- Graduate students may register for graduate courses using the "audit" option only for elective courses which will not count as part of the student's program of study. Students must initially register for the course using the "audit" option.

Under no circumstances may the credit option be changed from “audit” to “credit” or “credit” to “audit.” Students will always be required to pay for courses taken as “audit” credit themselves without using any university sources of funding. Students must have prior written permission from the Graduate School dean to register for a course using the “audit” option.

- A grade of “NP” (not processed) will be given to students registered for thesis work until their thesis is complete. At that time the grade will be changed to “S” or “U” for the required six hours of credit.
- A grade of “NC” (no credit) will be given to students registering for comprehensive continuance and thesis continuance.

## Incomplete Grades

The grade of “I” is used to indicate incomplete work in a given course and is awarded only when

- the student presents a compelling personal reason (e.g., illness).
- the course has been designated by the department or school as normally requiring a grade of incomplete.

Courses in which a student received a grade of “I” must normally be completed by the end of the next regular semester, or the grade is reported permanently as an “F.” Students should consult departmental or school guidelines regarding those courses which are covered above. See the University Calendar at the front of this catalog for the date by which grade changes must be reported to the Office of the Registrar.

All course work must be completed by the final date of each student’s final semester. Students failing to meet the deadline will have their degrees dated the following semester. Consult the University Calendar in the Schedule of Classes and/or this catalog for date.

## Unsatisfactory Progress

If at any time a graduate student fails to make satisfactory progress toward the degree, the student may be denied permission to continue in the program. Such a decision may be reached by the student’s major adviser and department head or school director and will be referred to the dean of the Graduate School for final action.

A student will be dismissed from the degree program or provisional status will be revoked if the student receives an “F,” “U” or three “C” grades in graduate courses. A student dismissed from the degree program may not enroll in any graduate-level courses for a period of one year. Students who want to return to the university must re-apply and be re-accepted in the usual manner.

The student will be placed on probationary warning upon receiving a grade of “C” in any two courses or if the student’s grade point average falls below 3.0. All credits attempted and all grades earned, whether passing or failing, will be used to calculate a student’s grade point average.

## General Appeal Process

Graduate education is a complex activity involving the exchange of ideas, opinions and information. The intensity of such exchanges requires significant and sophisticated relationships between faculty and students.

Evaluation of the graduate student’s progress is primarily dependent on the judgments of the major professor and other appropriate faculty members of the major department or school. The university, through the Graduate School, can define minimal entrance standards and can prescribe general rules governing eligibility for continuation. However, the crucial agency in student evaluation is the department or school in which the student’s work is focused, and the principal evaluator must be the faculty adviser.

It is assumed that most disputes over evidence of unsatisfactory progress will be informally discussed and reconciled at the departmental or school level. Most discussions of this type will commonly occur among the student, major professor and other faculty members in the major department.

## Grade Review Procedure

Maintaining standards of excellence and the integrity of the teaching/learning process are important values to JMU faculty. The university and its faculty members also recognize that sometimes grades may be inappropriately assigned. If such disagreements occur, students have a right to be fairly heard. Evaluation of student work and assignment of grades on the basis of academic criteria are the responsibilities and prerogative exercised by the professor.

## Grade Change Procedure

If a student believes that a grade was assigned in error because of a mistake in calculation or an error in recording, the student should consult the professor (or professors, in the case of a jointly taught course) before the Friday of the second full week of classes in the regular semester following the semester of the contested grade to resolve the discrepancy. Requests for review of spring semester or summer session grades must be initiated no later than the Monday of the third full week of classes in the subsequent fall semester. If the professor agrees that a change should be made, the professor should submit a Grade Change Form and forward it to the department head, school director or cluster coordinator for signature. A copy will be forwarded to the graduate dean. The only basis for this type of change is an error in grade assignment or calculation.



## Grade Review Process

To activate the grade review process, the student should follow these four steps:

1. The student submits a Grade Review Form to the appropriate professor by Monday of the third full week of classes in the regular semester that follows the semester for which the contested grade was given. The student should attach a written explanation of reasons for dispute, including any documentation relating to the disputed grade. Requests for review of spring semester or summer session grades must be initiated no later than the Monday of the third full week of classes in the subsequent fall semester.
2. The student meets with the professor by Friday of the third full week of classes to attempt to resolve the concern.
  - If the student and the professor reach an agreement that the grade should be changed, the professor changes the grade by submitting a Grade Change Form to the appropriate department head, school director or cluster coordinator for that individual's signature. A copy of this signed Grade Change Form will be forwarded to the dean. For graduate students whose grade of "C," "U" or "F" is to be changed, notice of the grade change must be sent to the Graduate School before that change occurs.
  - If no resolution is reached, the professor signs the Grade Review Form and records a written response on the reverse side of the form. The professor returns the original copy of this form to the student, retains a copy of the form for his or her personal records and forwards a copy to the relevant department head, school director or cluster coordinator by Friday of the fourth full week of classes.
3. The student must contact the relevant department head, school director or cluster coordinator by the Friday of the fifth full week of classes in order to request review of statement and response.
4. The department head, school director or cluster coordinator meets with the student and confers with the relevant professor.
  - The department head, school director or cluster coordinator signs the Grade Review Form and records a written response on the reverse side of the form by Friday of the seventh full week of classes. The student receives the original copy of this form, the relevant professor receives a copy of the form and the sender retains a copy of the form.
  - If all involved parties agree that the grade should be changed, the professor submits a Grade Change Form to the department head, school director or cluster coordinator and the appropriate individual signs the form. A copy of the form will be forwarded to the dean. Notice of the grade change must also be

sent to the Graduate School before the grade change occurs for graduate students who have a grade of "C," "U" or "F" changed to some other grade.

After the review process outlined above has been completed, a student can also request that the form, documentation and responses be reviewed by the dean of the college in which the class was taught. The college dean's responsibility is only to ascertain whether all parties have had an opportunity to present all relevant facts and have received a fair and impartial hearing at each level. To enter this phase of the process, a student should follow this procedure:

1. The student contacts the dean by Friday of the eighth full week of classes and requests that the dean review the overall process.
2. The college dean reviews the process to be sure the student and the faculty member have had a fair hearing.
  - If the relevant college dean believes that due process was not followed during the review process, the dean consults with the relevant professor and department head, school director or cluster coordinator to resolve the dispute.
3. The relevant college dean sends a written response to all involved parties by Friday of the 10th full week of classes. This written response is appended to the Grade Review Form. The dean returns the original copy to the student, retains a copy for him or herself and sends a copy to the relevant department head, school director or cluster coordinator and the relevant professor.
  - If it is agreed that the student's grade should be changed, the relevant professor submits a Grade Change Form to the department head, school director or cluster coordinator. The recipient then signs the form and forwards a copy to the dean. Notice of the grade change must also be sent to the Graduate School before the grade change occurs for graduate students who have a grade of "C," "U" or "F" changed to some other grade.

There is no further review beyond college dean. The entire process will not extend past the end of the semester following the contested grade with the exception of grades given for summer session courses.

## Reinstatement Policy

Graduate students dismissed for academic reasons are never automatically reinstated. Students are suspended for an indefinite period or until reinstated by a decision of the dean of the Graduate School on the recommendation of the departmental or school graduate appeals committee and the department head or school director. Suspension appeals will be heard promptly. Students may not enroll in any graduate-level courses while on academic suspension.

## Withdrawal from Courses

A student may drop a course without special permission through the time period designated in the University Calendar as the “free drop period.” A student may withdraw from a course without special permission through the time period designated in the University Calendar as the “course adjustment period.”

Students will not be permitted to withdraw from a course after the course withdrawal deadline. Students are responsible for knowing their registered course schedules and for making any desired course adjustments by the published deadlines. After the course withdrawal deadline, a grade other than a “W” must be issued for all registered courses.

## Withdrawal from Graduate School

A graduate student withdraws from graduate school when he or she terminates enrollment before completing the semester or summer session for which he or she is registered. A student may withdraw from all courses during the course adjustment period without special permission, by completing a withdrawal request form available in the Office of the Registrar, Warren Hall, third floor.

The Office of the Registrar will approve the request, set the official withdrawal date and notify other university officials of the action.

A student who voluntarily withdraws without receiving official approval will receive a grade of “F” for all courses in which he or she is enrolled. A student voluntarily withdrawing with official approval will receive a grade of “W” in all courses. A student who withdraws because of extenuating circumstances will also receive a “W” in all courses.

Students who withdraw from the Graduate School will be responsible for tuition as determined by the Office of the Registrar and may be subject to a change in their financial aid status. Information on tuition refunds may be found on page 22.

## Comprehensive Examinations

A comprehensive formal assessment of learning – written and/or oral – designed to appraise the student’s mastery of his or her field is required of all JMU students at the culmination of their graduate studies.

The examination requires the integration and synthesis of what has been learned by the student. The student must demonstrate a breadth of knowledge in the discipline and depth in specific areas.

The deadline for completing the comprehensive evaluation is indicated in the University Calendar at the front of this catalog.

Generally, only students whose admission classification is unconditional are eligible to take comprehensive examinations.

Eligibility to take a comprehensive examination is based on admission to candidacy and completion of required course work or current registration in work that, when successfully completed, will fulfill the degree requirements.

A comprehensive examination involving a major/minor program cannot be taken until at least six credit hours in the minor program have been completed; approximately a third of the comprehensive examination will be devoted to the minor field.

Students will be notified, in writing, of success or failure of the comprehensive examination by their major program or departmental adviser.

## Comprehensive Committees

Committees are selected by the graduate program director in consultation with the student. Each committee must consist of at least three approved members of the JMU graduate faculty with the background and interest necessary to evaluate the research and progress of the program of study. At least two members must be from the student’s department or school.

Faculty selected to serve on the comprehensive committee must be approved members of the JMU graduate faculty. In addition to meeting approved departmental or school criteria, the mandatory criteria for appointment to the graduate faculty include possession of the terminal degree in the discipline, successful recent teaching at the graduate level and a record of ongoing substantive scholarly productivity within the discipline.

The graduate faculty member must also demonstrate continuing professional service through a role as a graduate student adviser, thesis or comprehensive examination member, membership and active involvement in organizations of the discipline or service to the university graduate program through service to graduate-level committees.

Nongraduate faculty candidates to the committee, which may include persons external to the university, may be approved by the dean of the Graduate School. Such members shall make up no more than one-third of the total committee membership. Graduate instructors may also be appointed to committees with the approval of the dean of the Graduate School, but only when their expertise clearly qualifies them; however, their appointment must be in addition to the required number of graduate faculty members.

Graduate students may not serve on the committees. Only a graduate faculty member may chair a comprehensive committee.

## Written Comprehensive Examination

For written comprehensive examinations, departments and schools offering graduate programs will work out arrangements by which questions are developed, distributed, administered and graded for a major and/or major/minor program.

## Oral Comprehensive Examinations

When an oral comprehensive examination is to be given, the major adviser will arrange for suitable dates and locations.

The department or school will appoint the examining committee, which should include a minimum of three approved members of the JMU graduate faculty who may or may not be those who serve as advisers or members of the Thesis Advisory Committee.

Examining committee members must be approved members of the JMU graduate faculty in the major department or school and college. The committee may also have at least one member of the graduate faculty from a field outside the major area.

The major adviser will arrange for suitable dates and locations. Oral comprehensive examinations are open to all members of the graduate faculty.

### **Comprehensive Examination Failure**

In the event the comprehensive examination is failed, a student may request a re-examination within six months of the date of failure. Only one re-examination will be allowed.

### **Comprehensive Continuance**

Refer to page 14.

## **Research and Thesis or Dissertation**

A thesis written as the result of the successful completion of a research project is required of all candidates for the Master of Science degree with a major in biology and the Master of Arts degree with a major in history or general psychology. In other master's degree programs, a research project and the writing of a thesis is an option which may be elected by the student. A dissertation written as the result of the successful completion of a research project is required of all candidates for the Doctor of Psychology degree.

Six hours of graduate credit in the major field is required for the thesis or dissertation. Students must register for thesis or dissertation for two, three or six credit hours during those semesters in which they are engaged in the research or writing of the thesis or dissertation. Students failing to complete a thesis or dissertation after registering for six hours are required to register for thesis or dissertation continuance during each semester they are actively working on the completion of the thesis.

### **Thesis or Dissertation Continuance**

Refer to page 14.

### **Thesis and Dissertation Advisory Committees**

Students pursuing degrees requiring completion of a thesis or dissertation must have an Advisory Committee to oversee progress toward the degree.

Committees are selected by the graduate program director in consultation with the student. Each committee must consist of at least three approved members of the JMU graduate faculty with the background and interest necessary to counsel, direct and evaluate the proposed research and progress toward completion of the program of study. At least two members must be from the student's department or school.

Faculty selected to serve on the thesis or dissertation committee must be approved members of the JMU graduate faculty. In addition to meeting approved departmental or school criteria, the mandatory criteria for appointment to the graduate faculty include possession of the terminal degree in the discipline, successful recent teaching at the graduate level, and a record of ongoing, substantive scholarly productivity within the discipline.

The graduate faculty members must also demonstrate continuing professional service through roles as a graduate student advisers, thesis or comprehensive examination committee members, membership and active involvement in organizations of the discipline or service to the university graduate program through service to graduate-level committees.

Nongraduate faculty candidates to the committee, which may include persons external to the university, may be approved by the dean of the Graduate School. Such members shall make up no more than one-third of the total committee membership. Graduate instructors may also be appointed to thesis or dissertation advisory committees with the approval of the dean of the Graduate School, but only when their expertise clearly qualifies them; however, their appointment must be in addition to the required number of graduate faculty members.

Graduate students may not serve on thesis or dissertation advisory committees. Only a graduate faculty member may chair a thesis or dissertation committee.

### **Thesis and Dissertation Requirements**

The thesis or dissertation will consist of a written interpretation of facts and opinions gained through critical reading and independent research and will also include an adequate analysis of the assembled data.

The thesis or dissertation is considered to be a student's original contribution of knowledge to the profession. It should be thorough, soundly designed and meaningful in its conclusions.

The general requirements for the preparation of a thesis or dissertation pertain primarily to mechanical considerations. The purpose of these stipulations is to provide a degree of uniformity and to assure that each thesis or dissertation is in a form suitable for binding, is fully legible and can be preserved for a reasonable period of time.

For those students who submit a thesis or dissertation in partial fulfillment of the requirement for a graduate degree at JMU, the following steps will be completed:

- With the guidance of the graduate faculty member under whom the research will be conducted, the student will choose a subject area and prepare a thesis or dissertation outline.
- Initial approval of the thesis or dissertation outline is to be obtained from the department or school as early as possible in the research program. This will be evidenced by written approvals on the student's program of study by the thesis or dissertation adviser and the department head or school director.

The adviser serves as the chair of the thesis or dissertation committee (see “Thesis or Dissertation Advisory Committee” for details of committee makeup). It is the responsibility of the student’s advisory committee to judge the acceptability of the thesis or dissertation from all standpoints, including neatness, mechanical considerations, and technical and professional competency. Committee members attest to acceptability from all standpoints when they sign the approval page. Therefore, it is important that they be provided with a final copy of the thesis or dissertation paper before they sign it. Students are urged to consult with the Graduate School or the deputy university librarian prior to the final reproduction.

- Guidelines for the technical preparation of a thesis or dissertation are outlined in the *JMU Graduate School Thesis and Dissertation Manual*, which is available online at [http://www.jmu.edu/gradschool/degcomplete/degree\\_process.html](http://www.jmu.edu/gradschool/degcomplete/degree_process.html). This online-manual sets forth minimal university guidelines including instructions for Microsoft Word which can be used in the preparation of the thesis or dissertation. More specific style considerations should be obtained from style manuals that are standard in the student’s discipline. When a preference for specific style guides is not set by the department, school or discipline, the student should consult a standard thesis or dissertation manual. Whichever manual the student selects should be followed consistently except where its instructions conflict with those set forth in *the JMU Graduate School Thesis and Dissertation Manual*.
- Three unbound, professionally reproduced copies of the thesis or four unbound, professionally reproduced copies of the dissertation will be filed with the Graduate School office by the dates published in this catalog. All parts of the thesis or dissertation, including the approval page, should be typed or professionally reproduced on acid-free paper. Do not use erasable bond. All pages must be identical in weight, color and texture. The paper must be pure white. No other color is acceptable. The approval page may be reproduced; however, signatures of committee members on all three copies must be original. Further specifications for paper and typing are explained in the *JMU Graduate School Thesis and Dissertation Manual*. In the abstract, a complete summary of the thesis or dissertation, the student should provide easy reference to the contents of the thesis or dissertation and a complete statement of the essence of the paper.

No grades will be given for a thesis or dissertation until the research has been completed and the thesis or dissertation written. The thesis or dissertation grade will then be recorded as either satisfactory or unsatisfactory.

For the purpose of registration and payment of fees, each thesis or dissertation research will be assigned equivalent credit hours.

Titles of dissertations will be printed in the graduation program. In addition, two copies of each student’s approved research will be cataloged in Carrier Library.

### **Research Project in School Psychology**

A written research project is required of all candidates for the Educational Specialist degree with a major in school psychology.

Students enrolled in the Educational Specialist school psychology and community counseling programs are required to register for PSYC 800, Educational Specialist Research Project, for a minimum of six credit hours. Registration will be in three credit-hour increments at any time prior to the completion of PSYC 790, Internship.

Students not completing research projects by the time the internship is completed are required to register for project continuation credit (two credit hours) each semester, including the summer session, until the project is completed. Continuation credits carry no credit hour production and do not count toward graduate program requirements.

In addition to these requirements, students enrolled in the Educational Specialist school psychology program must adhere to the steps listed in the Thesis and Dissertation Requirement section of this catalog on Page 18.

### **Course Completion Deadlines**

For deadlines by which all courses attempted must be completed each semester, refer to the University Calendar at the front of this catalog.

All course work must be completed by the final date of the student’s final semester. Students failing to meet the deadline will have their names removed from the current graduation list and their degrees dated the following semester. (Consult the calendar in Schedule of Classes and/or this catalog for date.)

### **Teaching Licenses**

Some candidates in programs leading to the Master of Arts in Teaching or Master of Science in Education degree and in certain programs leading to the Master of Education degree do not hold the Collegiate Professional License. Those candidates must meet requirements for admission and retention in the JMU Teacher Education Program and should contact the Office of Teacher Education Services, Maury Hall, Room 110, or their education adviser immediately upon acceptance into their program of study. The requirements for licensure must be met before the degree is conferred.

In exceptional cases, upon the petition of the department or school this requirement may be waived by the dean of the Graduate School. As a general exception, however, students with a minor in higher education are not required to hold the Collegiate Professional License.

## **Advanced Graduate Degree Programs**

The Master of Fine Arts, Educational Specialist and Doctor of Psychology degrees are advanced graduate programs.

For more detailed information regarding deadlines and procedures, please refer to the "Art and Art History" section for the Master of Fine Arts degree and the "Psychology" section for the Educational Specialist and the Doctor of Psychology degrees.

## **Application for Graduation**

Students expecting to graduate must file an official Application for a Graduate Degree with the Graduate School by the deadline of the term in which graduation is anticipated. The Application for a Graduate Degree is available in the Graduate School office and online at <http://www.jmu.edu/gradschool/forms/degreeapp.pdf> . A student must be in "good standing" and have a grade point average of 3.0 or better to graduate.

## **Attendance at Commencement**

Students are expected to attend graduation exercises. A student unable to be present for the graduation exercises must notify the Office of the Registrar at least 10 working days before commencement.

## **Exceptions to Regulations**

Any exception to the published rules and regulations cited on the preceding pages may be requested by petition to the dean of the Graduate School. Such petitions must be initiated by the graduate student with the written approval of the student's adviser and the department head or school director and must mention the regulation and justify completely the exception being requested.

# Fees and Expenses

For information, call the Student Accounting Office, (540) 568-6505

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## General Fees

General fees are listed in the Schedule of Classes published each term or may be obtained by request from the Graduate School office. The general fees include the cost of instruction but do not include the cost of books and supplies. A full-time graduate student in a regular semester is one who is carrying nine or more hours of graduate coursework.

## Billing and Registration

The Schedule of Classes contains comprehensive information concerning registration and billing for each semester. Registration and payment times, places and methods; procedures for adding and dropping classes; and rules for assessing late payment fees are also included in the Schedule of Classes. Students are responsible for the payment of their bills. Tuition and fees must be paid before registration is considered complete.

Students may pay by a combination of personal check, money order, cashier's check, Discover, MasterCard or VISA. Payments drawn on foreign banks must be converted to U.S. dollars prior to transmittal to the university. The student's account (social security or PeopleSoft ID) number should be included on all payments in order to ensure application to the proper account.

The following policies govern outstanding debts:

- No credit for university work may be given to any student for a diploma, teachers' license or transfer purposes until all debts to the university, other than student loans, have been paid. In this context, Donald E. Gardner Memorial Scholarship Fund loans are not considered student loans.
- Students will not be eligible for readmission until accounts are paid in full and
- Upon recommendation of the bursar and with the approval of the vice president for administration and finance, students who are deficient in their accounts may be restricted from attending classes or may be forcibly withdrawn until satisfactory arrangements have been made for payment of their obligations to the university.

All graduate, research, service and teaching assistants must register each semester for all courses to be covered by the assistantship during the regular registration period(s) prior to the tuition refund date as outlined in the Schedule of Classes. Students who register for any additional courses after this time will be held personally responsible for additional tuition and fees.

As established policy provides, students who drop courses after the tuition refund date will be personally responsible for fees and will receive a grade of "W" for the course. Exceptions will be made only for documented extenuating circumstances and will be handled on a case-by-case basis.

## Special Fees

### Thesis/Dissertation

Graduate students will be charged at the graduate rate for thesis or dissertation work (course number 700 or 900). Students failing to complete a thesis or dissertation after registering for six credit hours are required to register for additional hours of continuance credit (course number 699 or 899) during each semester, including summer session, until they have received their degrees.

In addition, students completing the doctoral dissertation will be required to pay an additional fee for the electronic submission of their research.

### Audits

A person who registers to audit a course will pay the same tuition and fees as one who registers for credit. As a general rule, graduate courses may not be audited. Assistantship scholarships may not be used to pay for course audit.

### Residence Halls

Limited housing is currently available for graduate students. Full room and board fees apply. Contact the residence life office at (540) 568-6489 for availability and information.

### Non-Virginia Residents

Eligibility for in-state tuition charges is based on the provisions of Section 23-7.4 of the Code of Virginia. This statute limits in-state tuition to those with Virginia domiciliary status. Virginia domiciliaries must not only have a current fixed home in the commonwealth, but must also have the intention of remaining in the state indefinitely. If there is any question regarding the right to classification as a domiciliary of Virginia, it is the student's responsibility to raise the question with JMU administrative officials prior to or at the time of registration.

"To become eligible for in-state tuition, a dependent student or unemancipated minor shall establish by clear and convincing evidence that for a period of at least one year prior to the date of the alleged entitlement, the person through whom he claims eligibility was domiciled in Virginia and has abandoned any previous domicile, if such existed."

"In order to become eligible for in-state tuition, an independent student shall establish by clear and convincing evidence that for a period of at least one year immediately prior to the date of the alleged entitlement, he was domiciled in Virginia and had abandoned any previous domicile, if such existed."

The statute defines an independent student as “one whose parents have surrendered the right to his care, custody and earnings, have ceased to support him and not have claimed him as a dependent on federal and state income tax returns and have ceased to provide him substantial financial support.

“Domiciliary status shall not ordinarily be conferred by the performance of acts which are auxiliary to fulfilling educational objectives or are required or routinely performed by temporary residents of the commonwealth. Mere physical presence or residence primarily for educational purposes shall not confer domiciliary status. Matriculating students who have entered an institution classified as out-of-state shall be required to rebut by clear and convincing evidence the presumption that they are in the commonwealth for the purpose of attending school and not as a bona fide domicile.”

The initial determination of a graduate student's domiciliary status is made by the Graduate School based upon the completed uniform domiciliary status form included in the application for admission to the university. For special students, the initial determination is made by the Office of Continuing Education and External Programs based upon the completed special student enrollment form. Decisions on re-entry students are also made by these respective offices. For information on special provisions of Section 23-7.4 covering military families and persons living out-of-state but employed full-time in Virginia, contact the Graduate School or the Office of Continuing Education and External Programs, as appropriate.

Initial determinations denying eligibility may be appealed in writing to either the dean of the Graduate School or director of Continuing Education, depending on the office that made the initial determination. Appeal for a final administrative review of the decision to deny in-state tuition may be made to the university's Residency Appeals Committee chaired by the associate vice president for student affairs. Any party aggrieved by a final administrative decision shall petition within 30 days for a review by the circuit court of Rockingham County.

Returning students may apply for reclassification through the Office of the Bursar. Denial of a request for such reclassification may be appealed within 30 days to the assistant vice president for finance with a final appeal to the Residency Appeals Committee. Petition for review of the final appeal must be made within 30 days to the circuit court of Rockingham County.

No change to the in-state status may be obtained by a student for an academic term that has begun before the date of receipt of the application for reclassification. Students are responsible for paying out-of-state tuition rates until in-state status has been approved.

## Student Refunds

Refunds for withdrawal from the Graduate School are calculated from the date on which withdrawal is officially approved by the Office of the Registrar. (Further information on withdrawal from the Graduate School may be found on page 17.) The time periods for refunds for academic withdrawals from the university and for reduced number of credit hours, if any, are outlined in the Schedule of Classes for each semester. In addition, students who withdraw from the university due to illness certified by a physician or for an unavoidable emergency or extenuating circumstances approved by the university registrar will be refunded a pro rated share of tuition and fees.

# Financial Assistance

For information other than assistantships, please contact the Office of Financial Aid and Scholarships, (540) 568-7820; fax (540) 568-7994

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Some departments or schools may require specific deadlines for assistantship applications. Please consult the department or school to which you are applying for an assistantship for their application deadline.

## Assistantships

Students will be awarded assistantships for a maximum of four academic semesters (exclusive of summer session). Students in the Master of Fine Arts degree program and the Doctor of Psychology degree program are not subject to this limitation. Assistantships are limited to nine paid graduate hours each fall or spring semester, although contracts are usually written for an academic year. This division coincides with standard procedures for awarding of financial aid, half of the total each semester. For more information on Academic Loads for assistantships, refer to Page 13. Students must pay for any additional hours each semester at the tuition rate based on residency status. Under no circumstances will payment from assistantship funds be used for audited coursework or undergraduate hours.

### Criteria

To be eligible for consideration for an assistantship a student must

- be conditionally or unconditionally accepted into a degree program.
- have current acceptable Graduate Record Examination or Graduate Management Admission Test scores on file.
- have an official transcript on file indicating completion of a baccalaureate degree from a regionally accredited institution.

All graduate, research, service and teaching assistants must register each semester for all courses to be covered by the assistantship during the regular registration period(s) and prior to the tuition refund date as outlined in the Schedule of Classes. Students who register for any additional courses after this time will be held personally responsible for additional tuition and fees. As established policy provides, students who drop courses after the tuition refund date will be personally responsible for fees and will receive a grade of "W" for the course. Exceptions will be made only for documented extenuating circumstances and will be handled on a case-by-case basis.

### Teaching Assistants

A limited number of teaching assistantships are available in departments or schools offering major programs of graduate study. Teaching assistants must have earned at least 18 graduate credit hours in their teaching discipline, be under the direct supervision of an experienced faculty

member and receive regular in-service training. They are assigned to an academic department or school and are expected to instruct six credit hours of course work or an equivalent of six credit hours of a laboratory. Application forms may be obtained from the Graduate School office. Teaching assistants are responsible for room and board expenses. Applicants should have overall undergraduate records approximating a "B" or higher. Teaching assistants carry a course load of nine graduate level credit hours of study and must be enrolled in a degree program.

### Graduate Assistants in Academic Areas

A limited number of graduate assistantships are available in most of the departments and schools offering major programs of graduate study. Graduate assistants are assigned to an academic department or school to assist faculty members in preparing for instruction, grading papers, conducting research, preparing laboratories, performing departmental or school administrative tasks, etc. Application forms may be obtained from the Graduate School office. Graduate assistants are responsible for room and board expenses. Applicants should have overall undergraduate records approximating a "B" or higher. Graduate assistants undertake various departmental or school assignments requiring 15 to 20 hours a week, carry a course load of nine graduate level credit hours of study and must be enrolled in a degree program.

### Graduate Assistants in Nonacademic Areas

Assistants are employed in a nonacademic department or administrative office and their duties will vary according to the needs of their assigned departments. Applicants should have an undergraduate grade point average of "B" or higher. Specific duties will vary, but in general an assistant will aid in the administrative duties of a supervisor 15 to 20 hours per week. An assistant will carry a course load of nine graduate level credit hours of study and must be enrolled in a degree program.

### Graduate Assistants in Student Affairs

The Division of Student Affairs offers appointments to the staff for those graduate students who are interested in working in a student personnel position. The site of the work will depend on training, experience and interest.

## Federal Financial Assistance Programs

The Office of Financial Aid and Scholarships, located in Warren Hall, helps qualified graduate students secure financial aid packages designed to meet their financial needs. Aid for graduate students is primarily limited to loans and work-study.



## Application Procedures and Deadlines

All financial aid applicants must undergo a standardized needs analysis by completing the Free Application for Federal Student Aid (FAFSA). Because of the time period involved with processing the paperwork, it is essential that applicants file the FAFSA by February 15 to receive priority consideration for the coming school year. Failing to file by the priority deadline can result in delays in receiving aid.

The federal processor uses a student's FAFSA to calculate their Expected Family Contribution (EFC), an estimate of their ability to contribute to their educational expenses for one year. JMU uses the EFC to calculate a student's "need." "Need" is simply a computation of educational expenses (COA) minus EFC.

Students offered financial assistance by JMU will receive a financial aid notice indicating the source(s) and amount(s) of assistance. Aid notices are usually sent to students during the summer. Loan applications are included with the aid notice in case the student wants to apply for a student loan.

### Federal Stafford Loan

The Stafford loan (subsidized and unsubsidized) is a long-term, low-interest loan borrowed from a bank, and insured by the federal government. To qualify for a Stafford loan, the student must be

- a U.S. citizen, national, permanent resident or eligible international student
- enrolled as a degree-seeking student on at least a half-time basis
- maintaining satisfactory academic progress as defined by the institution

The maximum amount that a graduate student may borrow for one academic year cannot exceed \$18,500. This figure may be lower depending on the student's documented cost of attendance.

The interest rate charged on a Stafford loan is variable, but is capped at 8.25 percent. The interest based on the 91-day-T-bill +1.7%. If a student is offered a subsidized loan, the government pays the interest on the loan while the student is enrolled in school on at least a half-time basis and during any other eligible deferment periods. If a student is offered an unsubsidized loan, the student is responsible for the interest from the moment the money is disbursed to the school.

### Federal Work-Study

A limited number of graduate students are employed each year through Federal Work-Study. Students are placed in academic or administrative offices and are paid directly twice a month. To be eligible, the student must have financial need, be degree seeking and be making satisfactory academic progress. Applications are available at the Office of Financial Aid and Scholarships.

## Institutional Employment

A limited number of graduate students are also employed through Institutional Employment each year. While these jobs are similar to Federal Work Study positions, they do not require that the student file the FAFSA or have financial need. Applications for these jobs are available in the Office of Student Employment, located in The University Services Building.

## Teacher In-Service Reimbursement

Virginia school divisions provide some financial assistance for their teaching and/or administrative personnel. Requests for information should be directed to the office of the respective school division superintendent.

## Army ROTC

Students enrolled in a graduate program requiring four or more semesters may earn commissions as second lieutenants in the U.S. Army through the Army Reserve Officers Training Corps Program. Students accepted into the advanced program will receive a monthly stipend of \$150.

Additional information about enrollment procedures and qualifications may be obtained from the Department of Military Science, (540) 568-6264 or (800) ROTC-JMU.

## Donald E. Gardner Memorial Loan Fund

The Donald E. Gardner Memorial Loan Fund is a short-term loan program named in memory of Donald E. Gardner, who served as university comptroller for nine years. The program provides students with a resource to meet short-term financial emergencies. These short-term loans, which range from \$200 to \$600, are available to undergraduate and graduate students who are

- currently enrolled either full or part time
- degree seeking
- making satisfactory academic progress
- able to repay the loan within 90 days
- free of negative service indicators

Tuition must be paid in full prior to applying for the Donald E. Gardner loan. Loan applications and other eligibility information may be obtained in the Office of Financial Aid and Scholarships.

## Short-Term Loan Fund

Similar to the Don Gardner loan, the short-term loan was established to assist enrolled students with emergency expenses. The short-term loan has a maximum limit of \$100 and must be repaid within 30 days. Students need not have their tuition paid to apply for a short-term loan.

# University Services

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## Career Development Services

There are a variety of career development services on campus to assist students at various stages of the career exploration and job search process. These services are part of the Student Success Center in Wilson Hall. Professional career counselors are available to discuss vocational objectives and a career resource center augments students' career decision-making and job search activities.

A continuous on-campus-recruiting program by employers from public schools, businesses, industries and government agencies is arranged during each school year in Sonner Hall.

Workshops on job-hunting strategies, resume writing, completing applications and interviewing are offered on a regular basis. Job vacancies from a variety of organizations are available in the resource center in 301 Wilson Hall. For more information, call (540) 568-6555.

## Campus Services

### Bookstore

The JMU Bookstore stocks all textbooks used by the academic schools and departments, as well as a large selection of general and technical books. The store also sells school, office and computer supplies, software, clothing, gifts, magazines and greeting cards. For students' convenience, the bookstore provides the following services:

- Special orders for books
- Textbook buy back
- Gift certificates
- Film processing
- Bus tickets
- Computer services

For additional information, call (540) 568-8056.

### Card Services

Card Services issues the JMU access card, which is the official identification card for all members of the university community. The JAC allows access to various campus facilities and services. It is also used for meal plans, dining dollar declining balance accounts and FLEX declining balance accounts, all of which are administered by Card Services. FLEX declining balance accounts are honored for purchases or services in the following areas: bookstore, on-campus copy centers and copy machines, game room, library fines, Mister Chips, postal services, University Health Center, University Recreation Center, on-campus vending machines, Warren Hall Ticket Office and all dining services locations. For more information on JAC, declining balance accounts and meal plans, including prices, restrictions and guidelines, contact Card Services, Warren Hall, 3rd floor, or call (540) 568-6446.

## Center for Leadership, Service and Transitions

The Center for Leadership, Service and Transitions provides a variety of innovative and exciting opportunities designed to help students acquire important leadership, citizenship, and professional competencies. Through community service experiences, leadership workshops, orientation programs for first-year students, leadership honorary organizations, guest speakers and other events, the center teaches the attitudes, skills and knowledge students will need to be effective in future employment, community and organizational settings. For information on the following programs, call (540) 568-6597 or visit [www.jmu.edu/clst/](http://www.jmu.edu/clst/)

- Leadership workshops and seminars, including exciting new programs in *Explore* and *Key Skills*
- Community-service placement through classes or special projects
- Alternative Break programs in the U.S., Central America and abroad
- Miller Fellows Presidential Leadership Program
- America Reads tutoring positions
- Leadership Apprentices
- Omicron Delta Kappa national leadership society

## Center for Multicultural/International Student Services

The Center for Multicultural Student Services is responsible for assessing the needs of multiethnic student populations at JMU and coordinating programs and services designed to meet those needs. The office works diligently to provide the following services:

- Multicultural programming and awareness
- Academic referral and monitoring
- Leadership training and development
- Organizational training and development
- Social adjustment counseling

Center staff members make a conscientious effort through programs and services to promote the importance of cultural diversity and awareness for the entire JMU community. For more information about these services, contact the Center for Multicultural/International Student Services in Warren Hall, Room 245, or call (540) 568-6636.

## Convenience Store

JMU's on-campus convenience store, Mister Chips, is owned and operated by the university. It sells a wide variety of products including snacks and beverages, health and grooming aids, newspapers, greeting cards, novelties, flowers and balloons. Mister Chips also provides dry cleaning and laundry service (drop off and pickup), on-campus flower and balloon delivery, film processing and video rental. For additional information, call (540) 568-3922.

## Counseling and Student Development Center

The Counseling and Student Development Center provides a variety of mental health and educational support services to graduate and undergraduate students.

The center offers individual therapy, group counseling and psychoeducational programs to aid students in resolving personal conflicts and in enhancing their educational, personal and professional development. Consultative services are available for individuals with questions concerning friends, family and others, as well as for individuals trying to determine whether or not counseling would be beneficial for themselves or others.

The CSDC is also available as a referral resource. If a student is seeking services beyond the scope of the center's resources, the center can assist with information about alternative services and service providers.

In addition to providing direct services to students, the center serves the general academic community by promoting awareness of psychological issues through psychoeducational programming and by consulting with staff and faculty about their interaction with students. The center also supports the educational community and the mental health profession by providing training opportunities for new professionals in the fields of psychology and counseling.

The CSDC is staffed by psychologists, counselors and counselors in training. A psychiatrist is also on staff to prescribe and monitor medications.

All services are available to graduate students currently enrolled for a minimum of six credit hours. Group counseling and center programs are available to all students. Contact the center for an initial appointment by stopping by Varner House or calling (540) 568-6552, Monday through Friday, 8 a.m. to 5 p.m. Contacts are confidential.

## Dining Services

Nutrition is important throughout life, and the college years are no exception. JMU Dining Services is one of the largest departments at the university, supporting the academic life of the entire community seven days per week with convenient, tasty meals and refreshments. The department serves 15,000 meals per day in 14 different venues across campus, ranging from espresso bars to cheeseburgers.

To obtain informational brochures, ask questions or purchase meal plans, call Card Services at (540) 568-6446 or stop by Warren Hall, third floor. Brochures and information may also be obtained from the Dining Services Administration Office located in Gibbons Hall, Entrance 7.

## Disability Services

Wilson Hall, Room 107

MSC 1009

Voice/TDD: 540.568.6705

Fax: 540.568.7099

Website: [www.jmu.edu/disabilityser](http://www.jmu.edu/disabilityser)

James Madison University is an equal opportunity institution that admits students without regard to disabling conditions. JMU is committed to maintaining

and enhancing an environment conducive to the highest level of individual empowerment by fostering a community that values innovation, human dignity, public service and diversity.

The Office of Disability Services (ODS) ensures that the university complies with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA). Section 504/ADA guarantees the rights of all students with documented disabilities equal access to an education, which is limited only by personal ability and not by physical or psychological disability. The office provides support services and coordinates accommodations to meet the needs of students who have disabilities.

Services are available to all currently enrolled JMU students who have a documented disability. Individuals eligible for services include, but are not limited to, those with mobility, orthopedic, hearing, vision, or speech impairments, as well as those with learning disabilities.

In order to provide effective and reasonable accommodations, students will be asked to provide documentation of their disability. Documentation should indicate the student's current level of functioning. It should also state the diagnosis of a disability, indicate the substantial limitations resulting from the disability and provide a justification for reasonable accommodations. This information will help disability services to provide the appropriate accommodations and support services each individual may need.

For more information on how to secure accommodations for students with disabilities or for information about policies, procedures and resources regarding services for students with disabilities; contact ODS at: Voice/TDD: (540) 568-6705 or visit [www.jmu.edu/disabilityser](http://www.jmu.edu/disabilityser).

## Office of the Registrar

The Office of the Registrar is responsible for the following activities:

- Add and drop registration procedures
- Athletic certification
- Class schedule preparation
- Commencement activities
- Degree audits
- Diploma issuance
- Enrollment verifications
- Student records
- Transfer credit evaluation
- Transcript issuance
- Withdrawals from the university

The Office of the Registrar assists students who are considering withdrawing from the university. The student and staff member discuss personal, financial and academic implications of withdrawal. The staff member can provide the student with the proper withdrawal request forms and assist in their completion.

Registration Services is located in Warren Hall, Room 302. For information regarding veterans affairs, withdrawal assistance and graduation, students should contact Student Record Services on the third floor of Warren Hall or call the Office of the Registrar at (540) 568-6281.

## Orientation

To successfully orient new students, JMU provides a variety of programs and services throughout the year. All freshmen entering in the Fall semester attend a one-day orientation program in July, a four-day program in August, and various programs during the Fall and Spring semesters. Transfer students entering in the Fall semester attend a one-day program in June. For all new students entering in the Spring semester, orientation activities are offered prior to the beginning of the semester. All orientation programs provide new students with academic advising, information about educational opportunities, and insights on how to be a successful student. There are numerous opportunities to meet new people, learn about key academic resources, and get involved in campus and community activities. Specific programs in July and August are designed for parents and family members. To obtain more information about Orientation and other opportunities for first-year students, call (540) 568-2574 or visit [www.jmu.edu/clst/orientation/](http://www.jmu.edu/clst/orientation/).

## Parking

All vehicles parked on property owned, operated or leased by James Madison University are required to display a valid JMU parking permit. For complete information regarding the university's parking regulations please refer to the Parking and Traffic Regulations handbook. A copy of the Parking and Traffic Regulations handbook may be obtained free of charge upon request at the University Parking Services office. Updated information can be obtained throughout the academic year by accessing our web site at <http://www.jmu.edu/parking>. For additional questions and concerns contact University Parking Services at (540) 568-3300 between the hours of 7 am and 4:30 p.m. Monday through Friday.

## Public Safety

The Office of Public Safety consists of law enforcement, locksmith and safety services. The Office of Public Safety, its components and personnel complement support and advance the educational purposes of the university through coordination of activities with other organizational units; promotion of the university's priorities for action and most importantly, the provision of a safe and secure environment for learning, working and personal development. For additional information, call (540) 568-6769.

## Police

The university police are commissioned officers with comprehensive law enforcement powers. University police continually patrol JMU's campus and facilities, providing full-service protection to the JMU campus community.

The Campus Police Cadet Program carefully screens and trains students to aid the university police. Cadets are on duty from 7 p.m. until 2 a.m. each week-night and until 3 a.m. on weekends. Cadets are responsible for patrolling the campus and securing academic and administrative buildings each evening. In addition, they provide escort services to students walking across campus and to and from parking lots. When cadets are off duty, university police officers escort students as needed.

## Locksmiths

University locksmiths work closely with faculty and staff members, residence life staff and on-campus Greek housing coordinators to ensure the utmost security of campus facilities.

## Safety

The university safety engineer is responsible for conducting safety surveys and inspections; investigating fires, hazardous material spills and other dangerous conditions and providing environmental and workplace safety and health awareness training.

## The JMU Campus Center

Through facilities, services, programs and resources, the James Madison University Center responds to the needs of students, faculty and staff members, and guests. The center provides experimental learning opportunities which support the university's mission of student learning and development.

The University Center reflects a broad range of programs and services which represent all members of the university community and serves as a community center for the campus. Physically, the University Center is a gathering place for the campus, with meeting rooms, assembly spaces, lounges and support services available. Philosophically, it is a place where ideas come to life, learning is put into practice and the various constituencies of the campus find common ground.

The university center is comprised of the following units:

## University Center Services

University Center Services encompasses facilities management and support services within the four buildings which make up the University Center; they are Warren, Taylor and Phillips Halls, and Grafton-Stovall Theatre. The center also includes services and programs such as the JMU Box Office, lost and found, Information Resources, coordination of bus transportation, the Center for Off-Campus Living and the Corner Pocket Gameroom. For more information, stop in at the Information desk or contact University Center Services at (540) 568-3789.

## Events and Conferences

Events and Conferences provides a comprehensive approach to the coordination of services necessary for campus events as well as coordination of scheduled meetings and conferences throughout the year. For more information, contact Events and Conferences at (540) 568-6330.

## Student Organization Services

Student Organization Services – Clubs, Greek Life, University Program Board – located in Taylor Hall, provide a wide range of educational, social and cultural events, as well as support services for student clubs and organizations. Student Organization Night at the beginning of each semester, offers an opportunity for student involvement in clubs and organizations.

## Taylor Down Under

Taylor Down Under, located on the ground floor of Taylor Hall, includes Off-Campus Life, the Corner Pocket gameroom, a coffee bar, a Corner Stage for entertainment and University Information at Taylor. The coordination of bus transportation is provided as a service through this area, for the entire campus.

## University Health Center

The University Health Center strives to meet the medical needs of JMU students related to minor injuries/illnesses and to provide educational opportunities for prevention and decision making affecting personal choices. Outpatient treatment is available for all full-time students as defined by the Graduate School. Clinicians handle appointments based on referral from the nursing staff.

The Self-Care Clinic, located in the University Health Center lobby, and a resource room, located in Room 8, are also available to students. Educational programs and services such as wellness peer educators, awareness days and CPR training are also provided through the center. A completed, current health record must be on file at the center to be eligible for services. For more information on the University Health Center, call (540) 568-6177.

## University Recreation

University Recreation promotes and advances healthy lifestyles through participation opportunities, educational experiences and supportive services. Our qualified staff is committed to excellence and attentive to the developmental needs of our participants. All recreational programs are administratively housed in the University Recreation Center, located adjacent to the Convocation Center on the new College of Integrated Science and Technology campus.

All you need is a valid JMU access card to participate in our comprehensive and innovative programs. All full-time graduate students (enrolled in nine or more credit hours per semester) receive full individual and family privileges. Graduate students enrolled in six or more credit hours receive full individual privileges. Graduate students enrolled in less than six credit hours may receive full individual privileges for an additional fee.

## How to Get Involved

Getting involved is easy. Semester program schedules may be obtained from our program information rack and you can sign up for any activity you want to participate in - aerobics, intramurals, orientations, racquetball, workshops and more - at the UREC Program Desk at (540) 568-8734. For additional information, please call (540) 568-8700 or check out our web site at <http://www.jmu.edu/recreation>.

## Facilities

- Aerobic studio
- Cardio/fitness area
- Climbing Wall
- Cycling studio
- Eight racquetball courts
- Equipment center
- Indoor track
- Locker rooms
- Main gymnasium
- Multiactivity center
- Multipurpose studio
- Picnic/patio area
- Pool with Jacuzzi/sauna
- Eight Raquetball Courts
- Sand volleyball court
- Strength/fitness area
- Synthetic turf field
- Two Instructional classrooms (wet classroom, group instruction)
- Administrative Offices
- Vending Area

## Graduate Student Housing

The university sponsors a limited number of efficiency apartments for upper-class and graduate students. Students interested in more information regarding university housing may contact the Office of Residence Life at (540) 568-6489.

## Office of Financial Aid and Scholarships

The Office of Financial Aid and Scholarships endeavors to assist graduate students in financing their higher education through loans and work-study. To be eligible for aid, a graduate student must be degree seeking and enrolled on at least a half-time basis. For more information, contact the Office of Financial Aid and Scholarships at (540) 568-7820.

## Student Employment

- The objectives of Student Employment are to
- provide standardized practices and procedures for student employment and student payroll services
  - provide a centralized information system for student employment opportunities

- enhance the awareness of student employment
- increase the number and variety of on-campus and off-campus employment opportunities

The office handles the employment process for all Institutional Student Employment. The Institutional Employment Program is funded by the university and does not require financial need. Listings of available positions are available in Warren Hall and the University Services Building. Contact Student Employment at (540) 568-6165 for more information.

## **Campus Life**

The Campus Life department oversees multiple functions related to creating and maintaining a sense of community at JMU. Offices and programs within the department focus on student learning, student development, community standards and successful transitions through the university experience. The Campus Life department includes the First-Year Involvement Center, the Greek Housing Office, the Office of Judicial Affairs, the Office of Residence Life and the University Housing Office. For additional information, call (540) 568-6275.

# Accounting

Dr. David R. Fordham, Director

Dr. Diane A. Riordan, Assistant Director of M.S.A. Program

For information, call (540) 568-3208

<http://cob.jmu.edu/accounting/>

## Professors

C. Baril, A. Bishop, A. Gabbin, M. Riordan, B. Roof, D. Street

## Associate Professors

D. Fordham, D. Riordan, C. Sullivan

## Assistant Professors

W. Bealing, S. Bryant, N. Nichols

The Accounting program leads to the *Master of Science* in Accounting degree. The primary purpose of the *Master of Science* in accounting program is to prepare business and nonbusiness majors for entry into the public accounting profession. The program serves as the “fifth” year in preparing students for the 150 hours of postsecondary education required to become a certified public accountant in many jurisdictions.

Admission criteria and degree requirements for the program are the same for all students. Courses at the graduate level are offered primarily in the evening.

The Graduate Management Admissions Test is required of all applicants for the *Master of Science* program. This instrument measures aptitudes important to the study of business and is to be taken prior to admission.

*Master of Science* requirements consist of any required prerequisites and the course work of the program itself. Admission is open to individuals with a baccalaureate degree in accounting, business or any nonbusiness discipline. Prerequisites are based on the background and previous training of the student.

The course work for the *Master of Science* program consists of a common core and electives with a thesis option.

Thirty credit hours must be taken at the 600 level.

## Master of Science Degree

Minimum Core Requirements <sup>1</sup>	Credit Hours
ACTG 675. Accounting Theory	3
ACTG 691. Advanced Accounting Systems <sup>2</sup>	3
Any 600-level economics course (approved by adviser)	3
MBA 630. Financial Management	3
Accounting electives (600 level)	12
Electives (600 level) <sup>3</sup>	6
	30

<sup>1</sup>Business and economics electives (or electives from other fields of study) are chosen with the approval of the Master of Science program director. Prerequisites must be met before taking 600-level courses.

<sup>2</sup>This course is considered the capstone in the MSA program and replaces the comprehensive examination requirement.

<sup>3</sup>One elective must be outside of Accounting.

## Course Offerings

### Accounting

ACTG 627. Federal Taxation and Business Decisions. 3 credits.

Considers federal tax consequences across business entities, including sole proprietorships, partnerships, corporations electing “S” status and corporations. *Prerequisite: Master of Science student or permission of instructor.* Not available for credit to students who have successfully completed the equivalent of six credit hours of tax.

ACTG 640. Accounting Information Technology. 3 credits.

In-depth coverage of modern technology used in the accumulation, reporting and analysis of accounting data. Intended primarily for students in the accounting information systems concentration track, this course covers modern computing hardware, telecommunications, networking and intermediate systems design concepts. Also provides an introduction to computer security, EDP auditing and ethical issues of today’s information technology. *Prerequisite: IDS 324 or equivalent.*

ACTG 675. Accounting Theory. 3 credits.

Study of selected areas in accounting theory, practice, and methodology, requiring integration and synthesis of student’s accounting knowledge. *Prerequisite: Master of Science student or permission of instructor.*

ACTG 676. Seminar in Cost Accounting. 3 credits.

This course teaches students to apply analytic reasoning and formal models to selected cost problems. *Prerequisite: Master of Science student or permission of instructor.*

ACTG 677. Advanced Auditing Theory and Practice. 3 credits.

The study of generally accepted auditing standards and theory supporting them. Application of auditing techniques including statistical sampling, legal liability of the auditor, role of the auditor, role of the auditor in securities regulations, and auditing in a computerized environment. *Prerequisite: Master of Science student or permission of instructor.*

ACTG 678. Fund Accounting. 3 credits.

Study of the current theory and practice of budgeting, accounting, reporting and auditing of governmental and not-for-profit organizations. *Prerequisite: Master of Science student or permission of instructor.*

ACTG 680. Directed Readings. 3 credits.

Opportunity for directed readings in areas of special interest. *Prerequisites: Permission of instructor and Master of Science program director.*

ACTG 691. Advanced Accounting Systems. 3 credits.

An applications-oriented course covering the analysis of integrated accounting information systems with special emphasis on identifying and evaluating system features and characteristics appropriate for various business settings. The course culminates in a special project requiring application of systems knowledge to solve a complex accounting case problem. A grade of "B" or better is the equivalent of passing the comprehensive exam.

*Prerequisite: Open to students entering their final semester of the MSA program or by permission of the MSA program director.*

ACTG 693. Applied Theory and Corporate Reporting. 3 credits.

Study and evaluation of selected areas of financial accounting theory and practice. This course emphasizes the explanation of financial reporting and the disclosure of relevant information to the users of financial statements, rather than the prescription of accounting practices. *Prerequisite: Master of Science student or permission of instructor.*

ACTG 694. Business Practicum for Accountants. 3 credits.

To provide the opportunity for work experience to gain insight into the real side of modern business. Through the Graduate Accounting Internship Program, students engage in a supervised work experience in public accounting, industry or government. During this time students will gain insight into the real world of business through their work in one or a variety of accounting functional areas prior to graduation. *Prerequisite: Permission of internship director.*

ACTG 695. Seminar in Accounting. 3 credits.

Study of selected areas in accounting theory, practice and methodology with an emphasis on financial statement analysis.

*Prerequisite: Master of Science student or permission of instructor.*

ACTG 698. Comprehensive Continuance. 1 credit.

Continued preparation in anticipation of the comprehensive examination. Course may be repeated as needed.

ACTG 699. Thesis Continuance. 2 credits.

Continued study, research and writing in the area of thesis concentration. Course may be repeated as needed.

ACTG 700. Thesis. 6 credits.

This course is graded on a satisfactory/unsatisfactory (S/U) basis.

*Prerequisite: Permission of Master of Science program director.*

MBA 630 Financial Management. 3 credits.

An in-depth examination of financial topics vital to the financial manager including financial and cash flow analysis, pro forma statement analysis, working capital, capital budgeting, valuation of financial assets, cost of capital, and risk analysis. The course emphasizes quantitative problem solving with extensive use of actual case situations.

MBA 653/ ACTG 671. Business Law. 3 credits.

A study of the principles of the law of contracts, agency, sales, commercial paper and business organizations; emphasizes the effect of such laws on business operations.

MBA 670. Directed Research. 3 credits.

Opportunity for directed research in areas of special interest. *Prerequisites: Permission of instructor and Master of Science program director.*



# Art and Art History

Dr. Cole H. Welter, Director

For application and information, call (540) 568-6216

<http://www.jmu.edu/art>

## Professors

K. Arthur, B. Lewis, M. Miyata, K. Szmagaj, C. Welter,  
S. Zapton

## Associate Professors

L. Halpern, C. Martin

## Assistant Professors

A. Dempsey, D. Ehrenpreis

The School of Art and Art History offers the *Master of Fine Arts* degree in studio art and the *Master of Arts* in art history, art education or studio art. Students pursuing the *Master of Education* degree may minor in art.

## Master of Fine Arts

The *Master of Fine Arts* degree is considered the professional and terminal degree in studio art. The degree requires a minimum of 60 credit hours. In addition to the general admission requirements, the prospective graduate student in the *Master of Fine Arts* program must have an undergraduate degree with a minimum of 33 credit hours in studio art and nine credit hours in art history. The art history hours must include six hours surveying the history of Western art and three hours in upper-level art history.

Three letters of recommendation and a portfolio of the applicant's artwork must be submitted as an indication of preparation for graduate study. The portfolio may include actual examples, photographs or 35mm slides of the applicant's work. A selection of not less than 15 nor more than 20 examples should be presented. The applicant for the *Master of Fine Arts* program must have at least half of the artwork in the portfolio in the intended area of emphasis. This portfolio must be submitted to the School of Art and Art History for examination before action on an application for graduate admission takes place.

The *Master of Fine Arts* degree in studio art is awarded for a high level of professional competence. The student will select an emphasis in a studio area. Those now available are ceramics, metal and jewelry, painting and drawing, printmaking, photography, sculpture and papermaking.

The minimum requirement for the *Master of Fine Arts* degree in studio art is 60 hours of graduate credit including 39 credit hours of studio art, 21 of which must be in the area of emphasis; 12 credit hours in art history (with a minimum of three in pre-20th century); and three credit hours in art criticism. Six credit hours of electives may be taken in or out of the field of art. A *Master of Fine Arts* candidacy review will be held after 18 credit hours have been completed to determine whether the students' growth and potential merit continuation in the *Master of Fine Arts* program. Each semester graduate faculty will conduct

## Application and Portfolio Deadlines

Fall Semester and Summer Session: February 15

Spring Semester: October 15

Portfolios for summer session and fall semester will be returned after April 15. Portfolios for spring semester will be returned after December 15.

Applications received after these dates or applications which are incomplete as of these dates may not receive full consideration.

group critiques of the students' work. Near the end of the program of study, the *Master of Fine Arts* candidate must produce an exhibition of his/her personal graduate artwork; a slide portfolio of the exhibition (to be retained by the university); and a written statement clarifying the student's work, its development, and its cultural and historical references. An oral comprehensive examination, generally in conjunction with the exhibition and closely related to the written statement, will also be held.

Up to 30 hours of graduate credit from other accredited institutions may be accepted toward the *Master of Fine Arts* degree if a) the credits were earned within the last seven years, b) the student received a grade of "B" or better, c) the transfer credit is from an institution offering a comparable degree and d) the student submits this request with the application to the Graduate School and the application is supported by slides, transcripts and artwork from the courses taken at other institutions. No more than 12 hours of transfer credit will be accepted in the student's area of concentration.

## Master of Arts

The *Master of Arts* in art history, art education or studio art requires a minimum of 30 credit hours. In addition to the general admission requirements, each area of study has further requirements.

## Art History

The candidate must have an undergraduate degree with a minimum of 12 hours of art history, including the six hours of the survey of Western art. Three letters of recommendation and a research paper of the student's choice must be submitted with the graduate application. The program includes 18 hours of art history, six hours of electives and six hours of internships or directed study. At least half of these credits must be in courses designated exclusively for graduate students.

## Art Education

The candidate must have an undergraduate degree with a minimum of 33 credit hours in studio art and nine credit hours in art history. The art history hours must include six hours surveying the history of Western art and three hours

in upper-level art history. The candidate must have an art teaching license and submit three letters of recommendation and a personal statement as an indication of preparation for graduate study.

The program of study includes nine hours in art education, six hours in art history, three hours in criticism, six hours in education and/or art education electives (Directed Study), and six hours of thesis.

### Studio Art

Candidates must meet the same admission requirements as candidates for the *Master of Fine Arts* degree.

The program of study includes 15 hours of studio in the applicant's area of interest, six hours of art history, three hours of criticism and nine hours of elective credit. Near the end of the program of study, the candidate must produce an exhibition of his/her graduate artwork; a slide portfolio of the exhibition (to be retained by the university); and a written statement clarifying the student's work, its development and its cultural and historical references. An oral comprehensive examination, generally in conjunction with the exhibition and closely related to the written statement, will also be held.

A program of study for the *Master of Arts* degree must be approved by the student's adviser and art school director before final acceptance. Up to nine hours of graduate transfer credit may be accepted toward the Master of Arts degree, and must meet the same criteria as those accepted for the *Master of Fine Arts* degree. No more than six hours of transfer credit will be accepted in the candidate's area of interest.

### Minor in Art

Students planning a program leading to the *Master of Education* degree may minor in art with 12 credit hours of graduate credit in art, including ART 683, Criticism of Art. Applicants for a graduate minor in art must submit a portfolio of their work to the graduate faculty of the art school, meeting standards of quality appropriate to graduate study in art. Applicants should contact the appropriate department in the College of Education and Psychology.

## Degree Requirements

### *Master of Fine Arts*

Minimum Requirements	Credit Hours
Studio (21-credit-hour minimum within a concentration)	39
Art history	12
Criticism	3
Electives (art or non-art)	6
	60

### *Master of Arts in Art History*

#### Minimum Requirements

Art history	18
Internship or directed study	6
Electives	6
	30

### *Master of Arts in Art Education*

#### Minimum Requirements

Art Education	9
Art history	6
Criticism	3
Thesis	6
Education/Art Education Electives	6
	30

### *Master of Arts in Studio Art*

#### Minimum Requirements

Studio	15
Art history	6
Criticism	3
Electives	6
	30

### Art Education Courses

ART 518. Contemporary Issues in Art Education  
 ART 610. Studio Experiences in the Schools  
 ART 682. Curriculum and Research

### Art History and Criticism Courses

ARTH 510. African Art: The Sahara and Northern Sahel  
 ARTH 512. African Art: Sub-Saharan  
 ARTH 516. Arts of Oceania  
 ARTH 519. Topics in African Art  
 ARTH 520. Ancient Art  
 ARTH 524. Arts of Ancient Egypt  
 ARTH 530. Far Eastern Art  
 ARTH 540. Early Medieval Art  
 ARTH 542. Art of Later Middle Ages  
 ARTH 544. Gothic and Gothic Revival Architecture  
 ARTH 546. Italian Renaissance Art  
 ARTH 548. Studies in Leonardo and Michelangelo  
 ARTH 549. Topics in Renaissance Art  
 ARTH 550. Baroque Art  
 ARTH 552. Eighteenth Century Art  
 ARTH 560. Nineteenth Century Art  
 ARTH 569. Topics in Nineteenth Century Art  
 ARTH 570. Modern Art from 1900-1945  
 ARTH 572. Modern Art Since 1945  
 ARTH 574. New Media and Contemporary Art  
 ARTH 576. Modern Architecture  
 ARTH 579. Topics in Modern Art  
 ARTH 580. American Art to 1870  
 ARTH 582. American Art from 1870  
 ARTH 584. Art of the Americas  
 ARTH 586. Monticello  
 ARTH 589. Topics in American Art  
 ART/ARTH 590. Topics in Art and Art History  
 ART/ARTH 594. Introduction to Museum Work  
 ARTH 620. Seminar in Non-Western Art  
 ARTH 640. Seminar in Italian Renaissance Art  
 ARTH 660. Seminar in Nineteenth Century Art  
 ARTH 670. Modern and Contemporary Critical Theory  
 ARTH 678. Seminar in American Art  
 ART/ARTH 683. Criticism of Art

## Studio Art Courses

ART 501. Workshops in Art  
 ART 621. Weaving and Other Fiber Arts  
 ART 622. Jewelry and Metalwork  
 ART 625. Ceramics  
 ART 635. Sculpture  
 ART 653. Printmaking  
 ART 655. Photography  
 ART 660. Painting and Drawing

## Directed Study Courses

ART/ARTH 595. Internship in Art or Art History  
 ART/ARTH 680. Reading and Research  
 ART/ARTH 698. Comprehensive Continuance  
 ART/ARTH 700. Thesis

## Course Offerings

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### Art and Art History

ART 501. Workshop in Art. 1-3 credits. (May be repeated to 6 credits.) Workshops, accompanied by lecture and discussion periods, selected from such areas as painting, sculpture, printmaking, ceramics, art education, photography and crafts. In studio workshops, 30 contact hours will be required for each credit hour.

ARTH 510. African Art: The Sahara and Northern Sahel. 3 credits. An introduction to the arts and cultures of northern and northwestern Africa. The diverse, rich heritage of Africa's arts will be explored through the major style areas of Saharan and northern sub-Saharan Africa including prehistoric rock arts, Egypt, northern Africa, Christian northeastern Africa, and Islamic North Africa.

ARTH 512. African Art: Sub-Saharan. 3 credits. A survey of the arts and cultures of sub-Saharan Africa, focusing on the major style areas of the continent. Coverage will include: the historic sites of Nigeria, the Guinea Coast, and central, eastern, and southern Africa.

ARTH 516. Arts of Oceania. 3 credits. An introduction to the visual arts and cultures of Oceania (the South Pacific). The major style areas of Polynesia, Melanesia, and Micronesia will be explored.

ARTH 518. Contemporary Issues in Art Education. 3 credits. An investigation of contemporary issues and trends in education and art education and their impact on our schools, including state mandates, arts education associations on the state and national level, funding agencies and technology.

ARTH 519. Topics in African Art. 3 credits. Topics in African Art will deal with current thematic or methodological issues such as contemporary African arts and artists, arts of the African diaspora, a particular media (such as architecture or the textile arts), portraiture and identity, the royal arts of Africa, African film and performance, or gender in the arts of Africa.

ARTH 520. Ancient Art. 3 credits. A study of major works selected from the Egyptian, Mesopotamian, Greek, Etruscan and Roman cultures. Considers themes such as the development of sacred places, royal art and architecture and artistic conventions in early civilizations.

ARTH 524. Arts of Ancient Egypt. 3 credits. A study of the arts of Ancient Egypt (c. 3000 B.C. to c. 300 B.C.). This course will focus on the art and architecture of the Old and New Kingdoms and also examine the enduring fascination with this unique artistic heritage from the excavations of Napoleon to the present.

ARTH 530. Far Eastern Art. 3 credits. A survey of East Asian art from prehistoric times to 19<sup>th</sup>-century colonialism. Emphasis is placed on the areas of major production: India, China, Japan, with less attention to such centers as Cambodia Siam and Korea.

ARTH 540. Early Medieval Art. 3 credits. Survey of Early Christian, Hiberno-Saxon and Byzantine art 300-1200. Examines painting, mosaics, manuscript illumination, and the development of church design in Italy and the Byzantine World. Considers cross-fertilization of Pagan, Christian, Islamic and Barbarian arts in Western Europe in the Early Middle Ages.

ARTH 542. Art of Later Middle Ages. 3 credits. A study of Western European arts and architecture in the later Middle Ages with concentration on Romanesque and Gothic styles (1000-1400). Examines church construction and allied arts around the millennium and the development of Gothic architecture, sculpture and painting in France, Italy and England.

ARTH 544. Gothic and Gothic Revival Architecture. 3 credits. Survey of Gothic architecture in France, England and Italy 1150-1500 and its influence in England and America 1750-1910. Examines the design of major cathedrals and regional European Gothic styles. Explores their influence upon Walpole, Pugin, Ruskin and other champions of Gothic Revival.

ARTH 546. Italian Renaissance Art. 3 credits. A survey of the development of Italian Renaissance art and architecture 1300-1550. Focuses on themes such as the revival of classical art, the influence of humanism and Neo-Platonism, the invention of perspective and the formation of the Early and High Renaissance styles.

ARTH 548. Studies in Leonardo and Michelangelo. 3 credits. Seminar which examines the artworks of Leonardo da Vinci and Michelangelo Buonarroti. Discusses issues such as the artist's creative process, the development of the artist's style, the patron's role in the artwork, and inter-relationships between the artist's visual and literary works.

ARTH 549. Topics in Renaissance Art. 3 credits. Topics in Renaissance art may include studies of major Italian or Northern Renaissance artists, the development of linear perspective, the Renaissance tomb chapel or art and politics of the Protestant Reformation.

ARTH 550. Baroque Art. 3 credits. A survey of European art and architecture of the 17<sup>th</sup> century. This course will focus on Baroque art and its cultural context in Italy, France, Britain and Holland.

ARTH 552. Eighteenth Century Art. 3 credits. A survey of the major European artistic movements of the 18<sup>th</sup> century. This course will focus on the development of Rococo and Neoclassical styles in architecture, sculpture and painting.

ARTH 559. Topics in Seventeenth and Eighteenth Century Art. 3 credits.

Topics in Seventeenth and Eighteenth Century Art may include studies of particular artists such as Rembrandt, Caravaggio, or Watteau, studies of particular styles such as the Rococo, or thematic studies such as the history of garden design or the development of art theory.

ARTH 560. Nineteenth Century Art. 3 credits. A study of European art (1750-1900) concentrating on Neoclassicism, Romanticism, Realism, Impressionism and Symbolism. Major topics include nationalism, historicism and the advent of new modes of representation.

ARTH 569. Topics in Nineteenth Century Art. 3 credits. Topics in Nineteenth Century Art may include studies of major artists, such as Caspar David Friedrich or Edouard Manet, specific artists groups like the Pre-Raphaelite brotherhood, or thematic issues such as the relationship between art and nationalism.

ARTH 570. Modern Art from 1900-1945. 3 credits.

Principal trends in European and American art-painting, sculpture, photography, film, architecture- during the first decades of the century. Central themes include art and nationalism, modernity and industry/technology, impact of popular culture, and art theory and criticism.

ARTH 572. Modern Art Since 1945. 3 credits.

A study of the many developments and trends in American and European art since 1945. This course will focus on such movements as abstract expressionism, pop, conceptual art, installation art, video, film and computer art with an understanding of the theoretical basis of those movements and the development of the art market during this period.

ARTH 574. New Media and Contemporary Art. 3 credits.

Advanced seminar that addresses impact of cultural politics and technology on how we make, evaluate and "speak" about art. Focus on variety of media including video, multi-media installations, conceptual art, computer generated imagery, virtual "reality," contemporary film, and digital photography.

ARTH 576. Modern Architecture. 3 credits.

Survey of architecture from 1851 to the present day. Thematic investigations will include regional, philosophical and technical developments in architectural space. Architects may include Labrouste, Berlage, Wagner and Richardson, through Wright, Mies, Le Corbusier, to the avant-garde Murcutt, Siza, Nouvel and Mockbee.

ARTH 579. Topics in Modern Art. 3 credits.

Topics in Twentieth Century Art may include studies of contemporary painters (ie. Gerhard Richter), sculptors (ie. Kiki Smith or Mona Hatoum), performance and video artist (ie. Bill Viola), or thematic issues such as the relationships between art, technology, and gender/racial politics.

ARTH 580. American Art to 1870. 3 credits.

American painting, sculpture, architecture and decorative arts from the Colonial period through 1870. Topics will include Colonial portraiture, African American aesthetics, the definition of folk art, nationalism and landscape painting and the question of American exceptionalism. The course will also introduce students to problems of interpretation in current scholarship.

ARTH 582. American Art from 1870. 3 credits.

American painting, sculpture, architecture and decorative arts from 1870-1945. It will address such topics as the American Renaissance, the Harlem Renaissance, Chicago School architecture, masculinity in Western American art, notions of decay in turn-of-the-century art and American modernism. It will also introduce methodological debates in current scholarship. *Prerequisite: ARTH 206.*

ARTH 584. Art of the Americas. 3 credits.

Art of indigenous peoples in the Americas (Meso, Central, South and/or North America) before European contact. This course will examine domestic and state architecture, painting, textiles, ceramics, metalwork, and earthworks within the context of geographic, state, religious, and social issues. Other topics include museum display, repatriation and western taxonomies.

ARTH 586. Monticello. 3 credits.

Seminar on the architecture and material culture of Thomas Jefferson's Monticello. The course will examine the design and construction of the house, its decorative arts, mechanical devices, landscape and garden design, Mulberry Row, the Monticello joinery, and the Indian Hall. Fieldtrips to Monticello are required. *Prerequisite: permission of the instructor.*

ARTH 589. Topics in American Art History. 3 credits.

Topics in American art may include studies of major artists such as Thomas Cole, George Catlin or Thomas Eakins, a specific group like the Hudson River School, or thematic issues such as art produced in a colonial context, sentimentalism in American genre painting or representations of the West in American art. *Prerequisite: ARTH 206.*

ART/ARTH 590. Topics in Art and Art History. 3 credits.

Study of selected topics in art and art history. May be repeated when course content changes. See Schedule of Classes for current topics.

ART/ARTH 594. Introduction to Museum Work.

3 credits. (Cross-listed as HIST 594.)

A study of the philosophy and practice of museum work, including exhibit design, conservation, registration, education and administration. A research project provides in-depth knowledge in one of the above areas. Subject is taught from the perspective of the museum professions and is applicable to diverse disciplines and types of collections.

ART/ARTH 595. Internship in Art or Art History. 1-8 credits.

Individual internship programs may be pursued in a variety of art-related areas which would parallel the education and career needs of each student. Each internship will be a full-time work/study program which will expose the student to the agency's organization and operation. *Prerequisite: ART 494 or 594 is a prerequisite for internships in museum and galleries.*

ARTH 620. Seminar in Non-Western Art. 3 credits.

A seminar addressing the representation of 'others' in scholarship and museum exhibition strategies. Issues of identity, of the construction of knowledge, of audience participation, and differing ways of seeing and knowing will be explored.

ARTH 640. Seminar in Italian Renaissance Art. 3 credits.

This course will focus on various topics in Italian art from 1300-1550, including interdisciplinary themes such as art in the Age of Dante or in-depth contextual studies of Italian Renaissance sculpture or painting.

ARTH 660. Seminar in Nineteenth Century Art. 3 credits.

This course will focus on various topics in Nineteenth century art from 1780-1900, including interdisciplinary themes such as Art in an age of Revolution, or in-depth contextual studies of specific movements such as Romanticism.

ARTH 670. Contemporary Visual Culture and Critical Theory. 3 credits.

This course will focus on the variety of critical methodologies used to analyze contemporary visual culture. We will, for example, investigate deconstruction, feminist criticism, semiotics, Foucault's structures of power, all within the context of contemporary European and American cultural politics.

ARTH 678. Seminar in American Art. 3 credits.

An intensive reading colloquium focused on selected topics, interpretations, historiography, or methods in American art scholarship from the Colonial period to 1945. Issues and readings will change each semester that the course is offered. *Prerequisite: ARTH 206 and permission of instructor.*

ART 610. Studio Experiences in the Schools. 3 credits.

A course designed for the art teacher to explore, investigate and produce artwork in media or approaches unfamiliar to the teacher. Emphasis will be placed on acquiring skills and knowledge with respect to materials and processes of specific media, as well as their direct application to students in a school setting.

ART 621 A, B, C. Weaving and Other Fiber Arts. 3 credits each.

(May be repeated or taken concurrently.)

Individual studio problems and research in fiber arts which may include tapestry, weaving, paper and surface design. Emphasis will be placed on creative development of techniques and individual expression. *Prerequisite: Nine hours undergraduate weaving or permission of instructor.*

ART 622 A, B, C. Jewelry and Metalwork. 3 credits each.

(May be repeated or taken concurrently.)

Studio work in metal with an emphasis on individual artistic development, craftsmanship and metalworking techniques. *Prerequisite: Nine hours undergraduate metal and jewelry or permission of instructor.*

ART 625 A, B, C. Ceramics. 3 credits each.

(May be repeated or taken concurrently.)

Studio projects in the techniques and processes of ceramic design, with emphasis on quality as evidenced by technical and formal consideration. *Prerequisite: Nine hours undergraduate ceramics or permission of instructor.*

ART 635 A, B, C. Sculpture. 3 credits each.

(May be repeated or taken concurrently.)

Advanced sculptural projects with choices from a wide range of materials and techniques including welding, casting, carving, construction and others. Emphasis is on process development and personal creative growth. *Prerequisite: Nine hours undergraduate sculpture or permission of instructor.* ART 653 A, B, C.

Printmaking. 3 credits each. (May be repeated or taken concurrently.)

Independent research under faculty supervision which may include work in lithography, intaglio, screenprint, relief and related photographic processes. Emphasis will be placed on creative development and technical expertise. *Prerequisite: Nine hours undergraduate printmaking or permission of instructor.*

ART 655 A, B, C. Photography. 3 credits each.

(May be repeated or taken concurrently.)

Individual projects in the photographic arts. A series of progressive problems will be selected by the student in consultation with the instructor. *Prerequisite: Nine hours undergraduate photography or permission of instructor.*

ART 660 A, B, C. Painting and Drawing. 3 credits each.

(May be repeated or taken concurrently.)

Studio projects aimed toward the development of the individual's expressive means. The student may choose from a wide variety of media. *Prerequisite: Nine hours undergraduate drawing and painting or permission of instructor.*

ART/ARTH 680. Reading and Research. 1-3 credits.

Directed reading and research in art areas of special concern to the student. Usually the topics will deal with art history, art theory or philosophical aesthetics. *Prerequisites: Two graduate-level art history courses and the approval of the art history instructor who will direct the research, or permission of the director of the art school.*

ART 682. Curriculum and Research. 3 credits.

A review of curriculum development and research in art education. The class will include assignments, readings and discussions of practical applications by art teachers. Curriculum models and sample research proposals will be developed by the students.

ART/ARTH 683. Criticism of Art. 3 credits.

An overview of major art theories, both as philosophy and style analysis, for the purpose of investigating the functions and practice of art criticism.

ART/ARTH 698. Comprehensive Continuance. 1 credit.

Continued preparation in anticipation of the comprehensive examination. Course may be repeated as needed.

ART/ARTH 699. Thesis Continuance. 2 credits.

Continued study, research and writing in the area of thesis concentration. Course may be repeated as needed.

ART/ARTH 700. Thesis. 6 credits.

This course is graded on a satisfactory/unsatisfactory (S/U) basis.

# Biology

Dr. Murray Nabors, Department Head

For information and application, call (540) 568-6225

<http://www.jmu.edu/biology>

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## Professor

D. Dennis, R. Harris, M. Nabors, B. Wiggins, G. Wyngaard

## Associate Professors

S. Babcock, D. Cocking, J. Kastendiek, S. Keffer, I. Knight,  
J. Monroe, M. Renfro, I. Welsford

## Assistant Professors

J. Herrick, J. Clevinger, M. Paternostro, C. Rose, K. Slekar

The Department of Biology offers the *Master of Science* degree with a major in biology. The department principally directs its graduate programs toward three groups of students:

- Those who wish to continue the study of biology as a scholarly pursuit and who later may continue work toward the doctor's degree;
- Those who wish to perform technical work for industry or governmental agencies; and
- Those who desire to teach at the secondary and/or community college levels.

Therefore, the objectives of the programs are to update the student's knowledge of subject matter, to give the student research and thesis-writing experience, and to give the future professional teacher an opportunity to learn techniques of value for actual classroom experiences.

The minimum requirement for the *Master of Science* degree is 30 hours of graduate credit in biology, including no more than six credit hours of BIO 700, Thesis. At least 15 hours must be taken at the 600 and 700 levels, including thesis. All students electing to major or minor in biology must have their individual program of study approved by the student's Graduate Advisory Committee and the head of the department. Graduate students planning a program of study leading to the *Master of Education* degree may minor in biology with 12 hours of graduate credit in biology if they satisfy the minimum entrance requirements for the *Master of Science* degree program in biology.

Up to nine hours of graduate credit from accredited institutions may be accepted toward the *Master of Science* degree, subject to general regulations and procedures of the Graduate School regarding transfer credit.

Prospective graduate students for the *Master of Science* degree should have completed an undergraduate major consisting of a minimum of 20 credit hours in biology, including courses covering the areas of general botany, general zoology, cell biology, ecology and genetics. A student may be admitted with deficiencies in one or more of these areas but should be aware that the Graduate Advisory Committee may require make up of deficiencies for no credit toward the master's degree. The applicant should have completed a minimum of a year (two semesters)

of general chemistry and one semester of organic chemistry. A course in general physics is strongly recommended, especially for those students interested in physiology or genetics. Certain areas of study may require additional background in biochemistry, statistics, calculus or computer programming. Students are required to submit Graduate Record Examination General Test and Biology Subject Test scores, three letters of recommendation from individuals who know the student's scientific potential, and a statement of professional goals and interests with their application for admission.

Full-time biology graduate students are required to attend and participate in departmental seminars while in residence.

Students who want to be considered for a graduate assistantship must have completed the admission process and filed a separate assistantship application by March 1.

## Course Offerings

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### Biology

For a student to enroll in any biology graduate course (except BIO 501), the department assumes the student meets minimal course requirements for entrance into the *Master of Science* degree program in biology. Permission of the instructor is required if this is not the case.

BIO 501. Workshops in Biology. 1-3 credits.

Concentrated study in particular areas of biology. No credit is allowed toward the *Master of Science* degree requirements and no more than one workshop may be applied toward a minor in biology.

BIO 504. Evolution. 3 credits.

Population change as brought about by mechanisms of organic evolution. Molecular biology is integrated with evolutionary biology and concepts of phylogenetic relationships resulting from the process of speciation are stressed. A seminar/ research project is required. (Credit may not be earned in both BIO 404 and BIO 504.)

BIO 515. Immature Insects. 4 credits.

Immature forms of insects representing the major orders will be studied for recognition purposes. Life cycles, habitats and economic importance will be included. A written and oral report on an individually assigned project is required. *Prerequisite: General Entomology*. (Credit may not be earned in both BIO 415 and BIO 515.)

BIO 525. Medical Entomology. 4 credits.

A study of arthropods that parasitize man or serve as vectors of human pathogens. Morphological features, distribution, life histories and control methods will be emphasized. An independent study project will be required. *Prerequisite: General Entomology.* (Credit may not be earned in both BIO 425 and BIO 525.)

BIO 535. Insect Ecology. 4 credits.

A study of the environmental relationships of insects, including insect development, population growth and regulation, and patterns of distribution. Emphasis is placed on field studies and an extensive research project. *Prerequisites: General Entomology and Ecology.* (Credit may not be earned in both BIO 435 and BIO 535.)

BIO 542. Immunology. 4 credits.

A study of the fundamental concepts of immune responses, the properties of antigens and immunoglobins, immunological specificity, and the development and regulation of cellular and humoral immunity. *Prerequisite: A course in microbiology or cell biology or the equivalent.* (Credit may not be earned in both BIO 442 and BIO 542.)

BIO 544. Virology. 4 credits.

A lecture seminar course considering the fundamental principles of basic and medical virology and an analysis of the structure, chemistry and replication of representative RNA and DNA animal viruses at the molecular level. *Prerequisite: A course in microbiology or genetics or consent of the instructor.* (Credit may not be earned in both BIO 444 and BIO 544.)

BIO 551. Ecosystem Dynamics. 4 credits.

Structure and functional dynamics of ecosystems. Basic ecological units, which are comprised of communities interacting with their environment and are themselves components of landscape, are quantitatively examined. *Prerequisite: General Ecology.* (Credit may not be earned in both BIO 451 and BIO 551.)

BIO 552. Population Biology. 4 credits.

Theoretical and applied aspects of distribution and abundance, population regulation, interactions between populations, and conservation will be studied in selected organisms, including humans. An independent research project will be required. (Credit may not be earned in both BIO 452 and BIO 552.)

BIO 553. Microbial Ecology. 4 credits.

The ecology of microorganisms will be covered, emphasizing the study of microbial growth and activity in natural environments. An independent laboratory project is required. *Prerequisites: Introductory ecology and microbiology courses.* (Credit may not be earned in both BIO 453 and BIO 553.)

BIO 554. Biometrics. 4 credits.

The design of biological experiments and applications of statistical techniques in ecology, cell biology, physiology, behavior, systematics, genetics and evolution. A seminar/research project involving advanced applications is required. *Prerequisite: MATH 220 or equivalent.* (Credit may not be earned in both BIO 454 and BIO 554.)

BIO 555. Plant Physiology. 4 credits.

The physiology of plant cells and organisms emphasizing biophysical and biochemical aspects of plant function including water relations, mineral nutrition, transport phenomena and metabolism. *Prerequisites: General Botany and Organic Chemistry.* (Credit may not be earned in both BIO 455 and BIO 555.)

BIO 559. Aquatic Ecology. 4 credits.

Functional relationships and productivity of freshwater communities are examined as they are affected by their physical, chemical and biotic environment. Organisms inhabiting lakes, ponds, rivers, streams and estuaries are studied at the population, community and ecosystem levels. Preparation of seminar topic papers required. (Credit may not be earned in both BIO 459 and BIO 559.)

BIO 560. Plant Cell and Tissue Culture. 4 credits.

Theory and practice of growing isolated plant cells, tissues and organs. Independent research project and class seminar expected. *Prerequisites: General Botany and Chemistry.* (Credit may not be earned in both BIO 460 and BIO 560.)

BIO 565. Plant Somatic Cell Genetics. 3 credits.

Examination of genetic changes at the cellular level and implications for plant trait modification. Literature review and class presentation expected. *Prerequisites: Cell Biology and Genetics.* (Credit may not be earned in both BIO 465 and BIO 565.)

BIO 570. Morphology of Nonvascular Plants. 4 credits.

Comparative morphology, ecology and taxonomy of representative algae, fungi and bryophytes. Critiques of pertinent literature required. *Prerequisite: General Botany.* (Credit may not be earned in both BIO 470 and BIO 570.)

BIO 580. Advanced Molecular Biology. 4 credits.

Cellular constituents and cellular genetics are emphasized at the molecular level. An exhaustive literature review and research proposal is required. *Prerequisite or corequisite: CHEM 342 or equivalent, or permission of instructor.* (Credit may not be earned in both BIO 480 and BIO 580.)

BIO 590. Biomechanics. 4 credits.

A study of the interactions of organisms with their physical environment. Concepts from fluid and solid mechanics are applied to biological form and function. Independent research is required. *Prerequisite(s): BIO 220 or permission of the instructor.* (Credit may not be earned in both BIO 490 and BIO 590.)

BIO 595. Topics in Integrative Biology. 1-3 credits.

This course will examine the interrelationships of various biological topics with related scientific and mathematical disciplines that are not offered by the biology department. A seminar/research project involving advanced applications is required. Course may be repeated as topics change. *Prerequisite: Permission of the instructor.*

BIO 625. Current Topics in Biotechnology. 1-3 credits.

A detailed study of a selected area in biotechnology. May be repeated with a change in subject matter.

BIO 626. Current Topics in Physiology. 1-3 credits.

Physiological topics of current interest or historical significance will be examined in detail. *Prerequisites: CHEM 341 or equivalent and at least four credit hours of physiology.*

BIO 651. Graduate Ecology Seminar. 1-3 credits.

Seminar on topics in basic and applied ecology which will include the review of significant literature and presentation and discussion of oral and written papers. May be repeated up to a total of six credits with change in topic.

BIO 665. Processes of Differentiation. 3 credits.

A seminar/discussion investigation into the basis of differentiation and development. Emphasis is on theoretical and experimental investigative approaches to understanding cellular and organismal control of developmental processes.

BIO 670. Developmental Anatomy of Seed Plants. 4 credits.

A study of the origin, growth, differentiation and maturation of cells, tissues and organs and their interrelationships. Emphasis is placed on economically important structures of crop, ornamental and forest plants.

BIO 675. Inquiries Into Plants. 1-3 credits.

An in-depth seminar/discussion examination of a selected area of botanical science. May be repeated with a change in subject matter.

BIO 682. Topics in Microbiology. 3 credits.

A detailed study of a selected area in microbiology. May be repeated with a change in subject matter. *Prerequisites: BIO 380 or equivalent, or permission of the instructor.*

BIO 685. Systematics of Vascular Plants. 3 credits.

A study of the classification systems beginning with the systems of the Greeks and continuing through the phylogenetic systems of the present, emphasizing pre- and post-Darwinian concepts. Identification and nomenclature of the native flora of the state is emphasized. Problematic areas such as the species concept are included.

BIO 697. Biological Research. 1-6 credits.

Laboratory and/or field research will be conducted under the direction of the Graduate Advisory Committee. The course will emphasize the development of research techniques and data collection. Can be repeated for credit. Hours do not apply toward 30 hours required for graduation.

BIO 698. Comprehensive Continuance. 1 credit.

Continued preparation in anticipation of the comprehensive examination. Course may be repeated as needed.

BIO 699. Thesis Continuance. 2 credits.

Continued study, research and writing in the area of thesis concentration. Course may be repeated as needed.

BIO 700. Thesis. 6 credits.

Thesis research to be directed by the Graduate Advisory Committee. This course is graded on a satisfactory/unsatisfactory (S/U) basis. *Prerequisites: Unconditional admission status in the graduate program and completion of an approved thesis research proposal.*



# Business Administration

Dr. Kenneth D. Bahn, Director

For information and application, call (540) 568-3253

<http://www.jmu.edu/mba>

Programs and faculty members from the *College of Business* support the Master of Business Administration program.

## Accounting Program

### Professors

C. Baril, A. Bishop, A. Gabbin, M. Riordan, B. Roof,  
D. Street

### Associate Professors

D. Fordham, D. Riordan, C. Sullivan

### Assistant Professors

S. Bryant, N. Nichols

## Economics Program

### Professors

E. Ahmed, R. Carrier, W. Fields, R. Horn, W. Wood

### Associate Professors

J. Doyle, D. Kreutzer, S. Milliman

## Finance and Business Law Program

### Professors

J. Albert, F. Damanpour, A. Francfort, A. Hamilton,  
H. Hobson, S. B. Marshall

### Associate Professor

M. Usry

## Computer Information Systems/ Operations Management Program

### Professor

B. Brookshire, K. Forcht

### Associate Professors

V. Kannan, I. Markham, S. Palocsay, P. Wang

### Assistant Professors

M. Busing

## Management Program

### Professors

P. DuBose, D. Gallagher, C. Pringle

### Associate Professor

M. White

### Assistant Professor

L. Bowes-Sperry, P. Bierly

## Marketing Program

### Professors

K. Bahn, R. Reid, H. Teer, K. Williamson

The accounting, CIS/OM, economics, finance and business law, international business, management and marketing programs in the College of Business support the *Master of Business Administration* degree program. The College of Business also offers other graduate courses designed to supplement and broaden knowledge in business and economics for master's degree candidates in other fields.

The *Master of Business Administration* program is offered both in Harrisonburg on the JMU campus and in Charlottesville. In addition, the new Information Security concentration is offered online. Admissions criteria and degree requirements for this program are the same for full and part-time students in both locations. Full-time students may expect to complete a degree in 24 months. Part-time students can expect to finish in 36 to 42 months.

The GMAT is required of all applicants. This instrument measures aptitudes important to the study of business and must be taken prior to admission.

Applicants must complete the essay form included with the application materials. Applicants are required to have at least two years of post-baccalaureate work experience prior to pursuing a degree and must submit a resume supported by two letters of recommendation elaborating on their work experience.

## *Master of Business Administration*

JMU's *Master of Business Administration* program has been designed to provide students with the knowledge and skills necessary to succeed in today's rapidly changing global business environment. The curriculum emphasizes teamwork, critical analysis, managerial decision making and leadership skills.

The program is primarily intended for working professionals holding full-time positions in the Shenandoah Valley and central Piedmont region of Virginia. All classes are offered in the evenings at both the Harrisonburg and Charlottesville locations.

The *Master of Business Administration* program is fully accredited by the American Assembly of Collegiate Schools of Business.

While applications are accepted all year, students may begin the program during the fall (Harrisonburg) or spring semester (Charlottesville). To remain on schedule, it is recommended that students take four courses per calendar year. Classes meet one evening per week during fall and spring semesters and two evenings per week during each six-week summer session.

The university encourages applicants with degrees in all major fields of study from accredited institutions. No specific undergraduate courses are required; however, students with nonbusiness baccalaureates are required to complete the following 500 level foundation courses in the functional areas of business.

<b>Non-business Baccalaureate Prerequisites</b>	<b>Credit Hours</b>
MBA 501. Management & Organizational Behavior	3
MBA 502. Statistics & Management Science	3
MBA 503. Financial Accounting	3
MBA 504. Managerial Finance	3
MBA 505. Foundations of Economics	3
MBA 506. Legal Environment of Business	3

Each of the six prerequisites is offered online in a self-paced, 7-week remote learning format. All are offered three times per year. All prerequisites must be completed prior to beginning 600-level courses.

The core M.B.A. program consists of 12 courses (36 credit hours) of advanced work at the graduate level. All candidates for the *Master of Business Administration* degree are required to take a common core of ten courses and two additional courses selected from electives in each of the functional areas.

For those admitted conditionally because of required prerequisites, the *Master of Business Administration* program has determined that the following time limit will apply for completing the required prerequisite courses: Three years from beginning the first course. The summer terms will be considered when determining this time limit. All 600 level course work must be completed within six years of beginning the first 600 level course. Returning students are strongly encouraged to register for courses for the next semester during the preregistration period. Courses with low enrollments may be canceled.

Students must notify the M.B.A. program office upon completion of each prerequisite course and have official transcripts submitted to the Graduate School office directly from the institution where the course was completed. Conditional status must be removed by the date stated in the acceptance letter.

Students are required to begin with four sequenced courses: MBA 600, Organizational Behavior, MBA 610, Quantitative Methods for Management, MBA 620, Accounting for Decision Making & Control and MBA 630, Financial Management. After completion of these four courses, a Level One Assessment is administered. Once students pass this assessment, they may continue with the remaining coursework.

<b>Minimum Requirements</b>	<b>Credit Hours</b>
MBA 600. Organizational Behavior	3
MBA 610. Quantitative Methods for Management	3
MBA 620. Accounting for Decision Making & Control	3
MBA 630. Financial Management	3
MBA 640. Managerial Information Systems	3

MBA 641. The Microeconomics of Business	3
Decision Making	
MBA 642. Operations Management	3
MBA 643. Advanced Topics & Cases in Financial Management	3
MBA 644. Foundations of Marketing Management	3
MBA 690. Strategic Management	3
Electives (two courses)	6
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Students with an undergraduate major in accounting or who have a CPA or CMA certification should take a graduate-level accounting elective instead of MBA 620. Strategic Management, MBA 690, is considered the capstone course in the M.B.A program and replaces the comprehensive examination requirement. A grade of 'B' or better is the equivalent of passing the comprehensive exam. Because MBA 690 replaces the exam, it must be the last course taken.

### Information Security Concentration

Fundamental business practices are changing rapidly because of new information technologies. The future of business depends upon the security and integrity of these technologies. The *Master of Business Administration* program in conjunction with the Department of Computer Sciences offers a *Master of Business Administration* with a concentration in information security.

This program is designed to create a new decision-maker who understands the business implications of information security.

The information security concentration is offered in an online remote learning format. Each course meets once at the start and then continues online. Assignments, faculty interaction, group discussions and examinations are completely web-delivered.

The *Master of Business Administration* with a concentration in information security courses and credit-hour requirements are listed below. Enrollment in 600-level courses offered by the College of Business is restricted to fully admitted graduate students.

<b>Information Security Concentration Minimum Requirements</b>	<b>Credit Hours</b>
MBA 600. Organizational Behavior	3
MBA 610. Quantitative Methods for Management	3
MBA 620. Accounting for Decision Making and Control	3
MBA 630. Financial Management	3
MBA 640. Managerial Information Systems	3
MBA 641. The Microeconomics of Business	3
Decision-Making	
MBA 642. Operations Management	3
MBA 643. Advanced Topics and Cases in Financial Management	3
MBA 644. Foundations of Marketing Management	3
MBA 690. Strategic Management	3
CS 600. Introduction to Infosec	3
CS 601. Security of Computer Systems I	3
CS 602. Security of Computer Systems II	3
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## Health Services

### Administration Concentration

The *Master of Business Administration* program in conjunction with the Department of Health Sciences offers a *Master of Business Administration* with a concentration in health administration. This program has evening classes to permit professionals currently working in the health field to further their education.

Applicants to this program should have experience in the health industry. An internship is required for those applicants who do not meet this experience requirement.

The *Master of Business Administration* with a concentration in health administration courses and credit-hour requirements are listed below. Enrollment in 600-level courses offered by the College of Business is restricted to fully admitted graduate students.

Minimum Requirements	Credit Hours
MBA 600. Organizational Behavior	3
MBA 610. Quantitative Methods for Management	3
MBA 620. Accounting for Decision Making & Control	3
MBA 630. Financial Management	3
MBA 640. Managerial Information Systems	3
HTH 659. Health Care Environment	3
HTH 660. Health Economics	3
HTH 661. Financial Management of Health Services Organizations	3
HTH 669. Health Care Administration	3
MBA 642. Operations Management	3
MBA 644. Foundations of Marketing Management	3
MBA 690. Strategic Management	3
Elective (choose one of the following):	3
MBA 641. The Microeconomics of Business Decision-Making	
MBA 650. Managing Human Resources	
MBA 643. Advanced Topics & Cases in Financial Management	

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## Course Offerings

### Accounting

See the Accounting section (<http://cob.jmu.edu/accounting/>).

MBA 620. Accounting for Decision Making and Control. 3 credits. Designed to present use of accounting in business decision making. Covers concepts and theories pertinent to the management function. *Prerequisite: One year of introductory accounting. Not available for graduate credit for Master of Science program studies.*

### Business Law

MBA 653. Business Law. 3 credits.

A study of the principles of the law of contracts, agency, sales, commercial paper and business organizations; emphasizes the effect of such laws on business operations.

### Economics

MBA 505. Foundations of Economics

This course is designed to equip students with the fundamentals of economic analysis so they will be able to apply these principles to appropriate cases. The course is designed to develop a facility for using the tools of economics, including standard models of the micro and macro economies, and an appreciation for the conditions under which the various models can effectively be applied. The course also develops an appreciation for the limitations of the models and an understanding of the relationship among economics and other disciplines.

MBA 641. The Microeconomics of Business Decision-Making. 3 credits.

This course is designed to provide graduate business students with the basic analytical tools needed to understand the decisions made by profit-maximizing firms and the causal linkages between these decisions and market structures. The course uses case study approach to examine market demand, the costs and organization of production, and the structures of the markets in which firms operate.

MBA 660. International Finance. 3 credits.

Analysis of problems involving international business finance. Description of international payments system and financial institutions, and application of analytical techniques and procedures for financing investments and business activities abroad. *Prerequisite: MBA 630.*

MBA 662. Macro Economic Theory and Economic Policy. 3 credits.

A study of macroeconomic theory and policy as they relate to unemployment, inflation and the rate of economic growth.

### Finance

MBA 630. Financial Management. 3 credits.

An in-depth examination of financial topics vital to the financial manager including financial and cash flow analysis, pro forma statement analysis, working capital, capital budgeting, valuation of financial assets, cost of capital, and risk analysis. The course emphasizes quantitative problem solving with extensive use of actual case situations.

MBA 643. Advanced Topics and Cases in Financial Management. 3 credits.

An in-depth examination of financial topics including financial and market efficiency, obtaining funds using debt or equity, leasing, capital structure, dividend policy, warrants, options and other derivative securities, international finance, hedging risks, mergers and acquisitions, financial distress and firm valuation. The course makes extensive use of actual case situations. *Prerequisite: MBA 630*

MBA 654. Investment Analysis. 3 credits.

Investment theory, development and application of analytical tools in the appraisal and selection of investments.

MBA 660. International Finance. 3 credits.

Analysis of problems involving international business finance. Description of international payments system and financial institutions, and application of analytical techniques and procedures for financing investments and business activities abroad. *Prerequisite: MBA 630.*

MBA 661. Financial Management of Real Estate Investments. 3 credits.

An in-depth examination of real estate investment and finance from an individual and institutional approach. Topics include: the investment calculus, risk analysis, cost of long- and short-term capital and construction, and development financing.

## International Business Program

MBA 663. International Business Development. 3 credits.

An in-depth study of a special topic or theme in international business and/or a collection of currently breaking opportunities in the global business environment. *Prerequisite: Permission of instructor.*

## Computer Information Systems/Operations Management

MBA 610. Quantitative Methods for Management

This course develops topics in management science, and then applies these tools to analyze and solve problems arising in business situations. Topics include forecasting, simulation, queuing theory, linear programming, integer programming, sensitivity analysis, and decision analysis. *Prerequisites: MBA 502 or the equivalent and MATH 205 or the equivalent.*

MBA 640. Management Information Systems. 3 credits.

An overview of information systems theory and technology. Primary emphasis is on management's role in planning, designing, developing and using computer-based information systems in business organizations. Other topics include systems theory, computer technology, information systems for decision making and behavioral implications of management information systems.

MBA 642. Operations Management. 3 credits.

An introduction to the managerial and technical elements of operations management in service and manufacturing organizations. Topics covered include system design, resource planning and management, and quality management.

MBA 652. Technology Enhanced Decision Making. 3 credits.

This course provides an introduction to techniques for structuring and analyzing managerial decision problems involving major uncertainties. Topics include decision tree and influence diagrams, probability assessment, risk analysis, risk attitudes and sensitivity analysis. Group decision making and groupware technologies will also be discussed. Emphasis is placed on the use of computer software for decision analysis.

MBA 658. Managing Innovation. 3 credits.

This course focuses on exploring the historical context of innovation, understanding the environment in which innovation thrives, identifying the issues which are central to establishing a climate in which innovation is rewarded, exploiting innovations in technologies and helping the firm gain a competitive advantage. *Prerequisite: MBA 652.*

## Management

MBA 600. Organizational Behavior. 3 credits.

Through the use of experimental exercises and case studies, the student will gain greater depth of knowledge in the study of organizational behavior, including leadership, management of conflict, change strategies, and group and individual behavior.

MBA 650. Managing Human Resources. 3 credits.

Emphasis is placed on selection interviewing, worker-managerial crisis interviewing, Equal Employment Opportunity Commission, placement procedures and assessing manager effectiveness.

MBA 651. Labor Relations. 3 credits.

An examination of the development of labor, contemporary collective bargaining processes, and practices and administration of labor-management contracts.

MBA 690. Strategic Management. 3 credits.

The required capstone course for all graduate business students. Emphasizes corporate governance and complex, top management level strategic thinking and decision making. Integrates all the functional areas of business while emphasizing the external environment and ethical context of management. *Prerequisite: Must be the last course taken of the Master of Business Administration program.*

## Marketing

MBA 644. Foundations of Marketing Management. 3 credits.

The course focuses on marketing planning, strategy and policy. In addition, application of analytical tools to contemporary marketing problems is a central focus.

MBA 655. Market Research for Decision-Making. 3 credits.

The course provides MBA students with the tools to evaluate primary market research. Students will study the market research process including: defining the problem, conceptualization, research design, sources of data, questionnaire development, sampling, data collection methods, univariate and multivariate statistical analyses, and the development of a management oriented report. Students will apply the components of the market research process and conduct their own research project.

MBA 656. Relationship Marketing. 3 credits.

Course focuses on the fundamentals of targeting, modeling, and segmentation to build customer relationships. Students will learn theory and economics of database-driven direct marketing, sources of data and database software, and technology behind database marketing.

## Directed Research (Independent Study)

These courses may be taken as electives with permission from the M.B.A Director and the course instructor.

MBA 670. Directed Research - Accounting

MBA 671. Directed Research - Finance

MBA 672. Directed Research - CIS/OM

MBA 673. Directed Research - Economics

MBA 674. Directed Research - Management

MBA 675. Directed Research - Marketing

MBA 676. Directed Research - Business Law

# Communication Sciences and Disorders

Dr. Nicholas W. Bankson, Department Head

For information, call (540) 568-6440

<http://www.jmu.edu/commsciences>

## Professors

N. Bankson, C. Bennett, M. Filter, C. Runyan, B. Seal,  
R. Ruth, B. Ryals

## Associate Professors

D. Halling, R. Hinkle, S.E. Runyan

## Assistant Professors

R. DePaolis, M. Gottfried

The Department of Communication Sciences and Disorders offers graduate programs in speech-language pathology and audiology. Graduates of these programs are awarded the *Master of Science* and *Master of Education* degrees respectively.

To be considered for unconditional (see "Admission to the Graduate School") admission into the graduate programs, a prospective student must have a 3.25 grade point average in the undergraduate major, successfully completed the undergraduate prerequisite courses, completed the Graduate Record Examination and submitted two letters of recommendation. For full consideration, it is recommended that all materials be received by March 1 for fall semester admission. After that time, applications will be reviewed in accordance with slots that may be available. Using the submitted material, the department admissions committee will rank eligible candidates for a limited number of admissions.

The Department of Communication Sciences and Disorders is accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology of the American Speech-Language-Hearing Association for its graduate academic programs.

## Speech and Hearing Center

The JMU Speech and Hearing Center, operated by the Department of Communication Sciences and Disorders, provides evaluation and clinical instruction services for individuals with speech, language and hearing problems. The priority for services offered through this clinical teaching laboratory is determined by the needs of practica students. Appointments for a consultation or evaluation may be made by any member of the university community or the general public. Professional services are provided by certified speech-language pathologists and audiologists and by supervised practica students.

## Hearing Disorders

The graduate audiology program culminates in eligibility for certification in audiology granted by the American-Speech-Language-Hearing Association and for licensure in audiology as awarded by the Virginia Board of Audiology and Speech Pathology.

The minimum requirement for the major is 43 credit hours of prescribed course work. No more than 10 credit hours of practica-related courses may be applied to a student's 43-hour program of study. Students may be admitted to the program with deficiencies, but should be aware that appropriate course work may be required beyond the minimum program requirements. Only one course with a grade of "C" may be accepted in the graduate degree program.

<b>Required Courses</b>	<b>Credit Hours</b>
CSD 500. Introduction to Research Methods in Speech-language Pathology	2
CSD 509. Audiology I	3
CSD 510. Amplification and Aural Rehabilitation	3
CSD 606. Pediatric and Habilitative Audiology	2
CSD 609. Audiology II	3
CSD 610. Advanced Study of Hearing Aids and Amplification Systems	3
CSD 614. Anatomy and Physiology of the Auditory and Vestibular Systems	3
CSD 615. Hearing Science	2
CSD 619. Auditory Pathophysiology	3
CSD 629. Electrophysiologic Measures in Audiology I	4
CSD 649. Selected Topics in Audiology	4
CSD 691. Professional Seminar in Audiology	1-3
Clinical Practicum	10
CSD 561. AR for Audiology (one credit)	
CSD 563. SLP for Audiology (one credit)	
CSD 671. Intern Hearing Practicum (two credits)	
CSD 672. Intern Hearing Practicum (two credits)	
CSD 673. Extern Hearing Practicum (two credits)	
CSD 674. Extern Hearing Practicum (one credit)	
CSD 675. Extern Hearing Practicum (one credit)	
CSD 676. Externship (one to five credits)	

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## Speech-Language Pathology

The graduate program in speech-language pathology is designed to provide a broad spectrum of academic and professional preparation experiences necessary for the education of specialists who deal with disorders of human communication.

Clinical practica experiences are available in a wide range of professional settings including the JMU Speech and Hearing Center, various hospital and rehabilitation programs, and the public schools. The academic and clinical components of the program are consistent with the requirements for certification in speech-language pathology by the American Speech-Language-Hearing Association and for health and education licensures in speech-language pathology by the state of Virginia. Applicants should have completed a minimum of 24 credit hours of undergraduate course work in speech pathology and/or related areas of study. Students may be admitted with deficiencies but should be aware that appropriate undergraduate prerequisites must be completed.

Minimum requirements for a major in speech-language disorders include 43 credit hours of prescribed course work. Only one course with a grade of "C" may be accepted in the graduate degree program.

<b>Required Courses</b>	<b>Credit Hours</b>
CSD 500. Introduction to Research in Communication Sciences and Disorders	2
CSD 522. Communication Disorders of the Traumatically Brain Injured	2
CSD 524. Evaluation and Treatment of Swallowing Disorders	2
CSD 527. Communication Problems of the Aging	1
CSD 529. Augmentative Communication	2
CSD 560. Neuromotor Speech Disorders	2
CSD 604. Neuroanatomy and Neurophysiology of Speech and Language	3
CSD 605. Physiological and Acoustical Phonetics	3
CSD 621. Advanced Study of Phonological Disorders	2
CSD 631. Processes and Disorders of Speech Fluency	3
CSD 640. Advanced Children's Language Disorders	4
CSD 641. Language Disorders in Adults	3
CSD 651. Disorders of Speech Resonance	1
CSD 656. Voice Disorders	3
Clinical Practicum <sup>1</sup>	10
CSD 581. Intern Speech Practicum (two credits)	
CSD 582. Intern Speech Practicum (two credits)	
CSD 583. Intern Speech Practicum (two credits)	
CSD 584. Intern Speech Practicum (two credits)	
CSD 585. Intern Speech Practicum (two credits)	
CSD 586. Intern Speech Practicum (two credits)	
CSD 681. Hearing for SLP (one credit)	
CSD 682. Extern Speech Practicum (one credit)	
CSD 683. Extern Speech Practicum (one credit)	
CSD 684. Extern Speech Practicum (one credit)	
CSD 685. Extern Speech Practicum (one credit)	
CSD 686. Extern Speech Practicum (one credit)	
CSD 687. Extern Speech Practicum (one credit)	
CSD 688. Extern Speech Practicum (one credit)	
<b>Electives</b>	
CSD 520. Advanced Sign Language (three credits)	
CSD 625. Pediatric Dysphagia (one credit)	
CSD 680. Reading and Research (one-three credits)	
CSD 700. Thesis (six credits)	

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<sup>1</sup>For teacher licensure, 100 practicum hours must be in an educational setting.

## Financial Aid

Fellowships funded by the Scottish Rite Foundation of Virginia are available to graduate students admitted to the graduate program in speech-language pathology. Fellowships are restricted to Virginia residents who intend to pursue positions with language-impaired children in Virginia.

In addition, graduate assistantships are available on a competitive basis to both speech-language pathology and hearing disorders students.

## Course Offerings

### Speech-Language Pathology and Audiology

CSD 500. Research in Communication Sciences and Disorders. 2 credits. Focuses on both basic and applied research interpretation.

CSD 501. Workshops in Speech Pathology and Audiology. 1-3 credits. Designed to provide a detailed study of a particular topic of interest in speech pathology and/or audiology. *Prerequisite: Permission of department head.*

CSD 509. Audiology I. 3 credits.

A study of topics and procedures fundamental to clinical practice including instrumentation, calibration, industrial audiology and basic imittance measurements.

CSD 510. Aural Rehabilitative and Amplification Systems. 3 credits. A study of hearing handicap and its management in adults, including amplification technologies, electroacoustic analyses, and prescription and verification procedures. Emphasis is on the foundations of clinical management.

CSD 520. Advanced Sign Language. 3 credits.

Advanced sign language will enhance the communication skills of the student whose core vocabulary and knowledge of application of sign language are basic. The course arranges opportunities for building fluency and reception, as well as expanding knowledge of sign systems and the appropriateness in a given situation. *Prerequisites: CSD 420 or permission of instructor.*

CSD 522. Communication Disorders of the Traumatically Brain Injured. 2 credits.

An overview of the role of speech-language pathology in the interdisciplinary management of cognitive-communicative deficits associated with traumatic brain injury.

CSD 524. Evaluation and Treatment of Swallowing Disorders. 2 credits. Current research and clinical management will be presented of individuals showing difficulties in feeding orally and aspirating. Normal physiology of deglutition and the multidisciplinary approach toward the management of dysphagia will be emphasized.

CSD 526. Supervision in Speech Language Pathology and Audiology. 1 credit.

The American Speech-Language-Hearing Association guidelines for clinical supervision form the basis for the study of the supervisory process. Problems in supervision and current research will offer students models and techniques to apply as a supervisor or supervisor.

CSD 527. Communication Problems of the Aging. 1 credits.

Introduction to the evaluation and management of communication problems associated with aging and dementia.

CSD 529. Augmentative Communication. 2 credits.

Assessment and intervention strategies for the speechless population will be presented. Students will participate in demonstrations of alternative communication systems. An interdisciplinary team approach to (re)habilitation will be studied.

CSD 530. Early Intervention. 2 credits.

Introduction to early intervention programs and approaches for infants and toddlers, with emphasis on the role of the speech-language pathologist in team intervention.

CSD 540. Language Disorders in Children – for Special Educators. 3 credits.

A comprehensive study of the etiology and remediation of language disorders in communicatively impaired children.

CSD 560. Neuromotor Speech Disorders. 2 credits.

The objective of this course is to familiarize students with the theoretical and clinical aspects in the areas of dysarthria and apraxia. Similarities and differences of the speech impairments in these disorders will be demonstrated and applied to diagnosis and treatment.

CSD 561. AR for Audiology 1 credit.

Clinical practicum in aural rehabilitation.

CSD 563. SLP for Audiology. 1 credit.

Speech-language pathology practicum for the audiology major.

CSD 581. Intern Speech Practicum 2 credits.

Speech-language pathology practicum.

CSD 582. Intern Speech Practicum. 2 credits.

Speech-language pathology practicum.

CSD 583. Intern Speech Practicum. 2 credits.

Speech-language pathology practicum.

CSD 584. Intern Speech Practicum. 2 credits.

Speech-language pathology practicum.

CSD 585. Intern Speech Practicum. 2 credits.

Speech-language pathology practicum.

CSD 586. Intern Speech Practicum. 2 credits.

Speech-language pathology practicum.

CSD 604. Neuroanatomy and Neurophysiology of Speech and Language. 3 credits.

Neuroanatomy and neurophysiology with an emphasis on speech and language behavior. Comprehensive examination of the neuroanatomic and neurophysiologic substrate for cognition and communication.

CSD 605. Physiological and Acoustical Phonetics. 3 credits.

Respiratory, phonatory, resonatory and articulatory components of speech output are considered. Theoretical models of speech production and reception are discussed.

CSD 606. Pediatric and Habilitative Audiology. 2 credits.

Etiology, assessment and management of hearing loss in the pediatric population are addressed. Behavioral and physiological assessment procedures are detailed with modifications offered for various handicapping conditions. Management procedures regarding amplification, communication needs, parent counseling and legal issues are discussed.

CSD 609. Audiology II. 3 credits.

A study of behavioral based clinical procedures including pure tone audiometry and masking, speech audiometry, cochlear and retrocochlear testing, and the evaluation of central auditory function. Advanced imittance procedures will also be considered.

CSD 610. Advanced Study of Hearing Aids and Amplification Systems. 3 credits.

An advanced study of hearing handicap and its prosthetic management. Various technologies, prescription methods, and verification procedures are critically reviewed.

CSD 614. Anatomy and Physiology of the Auditory and Vestibular Systems. 3 credits.

Advanced study of the anatomy and physiology of the auditory and vestibular systems to include cochlear and neural mechanisms of sound coding.

CSD 615. Hearing Sciences. 2 credits.

Advanced acoustics and psychoacoustic dimensions of the auditory system; methods of isolating and quantifying the auditory response. Includes discussion of current theories of pitch, loudness, masking and other auditory phenomena.

CSD 619. Auditory Pathophysiology. 3 credits.

A study of the various disorders of the external, middle and inner ears; the retrocochlear and central auditory systems; and the vestibular and balance system.

CSD 621. Advanced Study of Phonological Disorders. 2 credits.

Articulatory phonetics, phonological processes and coarticulation are considered. Emphasis is given to analysis of phonological delays/disorders and specific procedures of remediation.

CSD 625. Pediatric Dysphagia. 1 credit.

The study of feeding and swallowing disorders in children. Instrumental and neuro developmental evaluation will be presented. Management techniques for feeding and swallowing difficulties will be advanced.

CSD 629. Electrophysiologic Measures in Audiology. 4 credits.

This course will review the most recent developments in the physiological aspects of hearing with attention to the physiologic correlates of auditory psychophysics and performance. Emphasis will be given to electrophysiological measurements derived from the auditory system.

CSD 631. Processes and Disorders of Speech Fluency. 3 credits.

Advanced diagnostic and therapeutic aspects of stuttering for children and adults are studied. Particular emphasis is placed on differentiating incipient stuttering from normal disfluencies.

CSD 640. Advanced Childrens Language Disorders. 4 credits.

Comprehensive study of children's pragmatic, semantic, and syntactic impairments. Emphasis is placed upon etiologies, evaluation, and habilitation procedures.

CSD 641. Language Disorders in Adults. 3 credits.

Theoretical comparative aspects and clinical management of aphasia in adults are emphasized. Communication disorders associated with right hemisphere brain damage are also considered.

CSD 649. Selected Clinical Topics in Audiology. 4 credits.

Discussion of advanced topics relevant to audiology, emphasizing the synthesis of theory with clinical practice.

CSD 651. Disorders of Speech Resonance. 1 credit.

The study of cleft palate and other orofacial abnormalities and their associated speech disorders. Advanced study in the diagnosis and management of cleft palate speech will be provided.

CSD 656. Voice Disorders. 3 credits.

The study of laryngeal functions and disorders. In-depth study of acoustic and physiologic parameters of the vocal mechanism. Emphasis is given to the diagnosis and management of vocal pathologies.

CSD 659. Reading and Research in Audiology. 1-3 credits.

This course will review recent professional literature of interest with emphasis on content and research design. For students not electing the thesis option, a study of empirical nature will be required.

CSD 671. Intern Hearing Practicum. 2 credits.

Supervised practica with the hearing impaired in the university clinic and a variety of other settings.

CSD 672. Intern Hearing Practicum. 2 credits.

Supervised practica with the hearing impaired in the university clinic and a variety of other settings.

CSD 673. Extern Hearing Practicum. 2 credits.

Supervised audiology practicum.

CSD 674. Extern Hearing Practicum. 1 credit.

Supervised audiology practicum.

CSD 675. Extern Hearing Practicum. 1 credit.

Supervised audiology practicum.

CSD 676. Externship. 1-5 credits.

Supervised audiology practicum.

CSD 680. Reading and Research. 1-3 credits.

Designed to allow graduate students to pursue independent study and/or research in the area of speech, language and hearing disorders under appropriate faculty supervision. May be repeated for credit. *Prerequisite: Permission of department head.*

CSD 681. Hearing for SLP. 1 credit.

Supervised speech-language pathology practicum.

CSD 682. Extern Speech Practicum. 1 credit.

Supervised speech-language pathology practicum.

CSD 683. Extern Speech Practicum. 1 credit.

Supervised speech-language pathology practicum.

CSD 684. Extern Speech Practicum. 1 credit.

Supervised speech-language pathology practicum.

CSD 685. Extern Speech Practicum. 1 credit.

Supervised speech-language pathology practicum.

CSD 686. Extern Speech Practicum. 1 credit.

Supervised speech-language pathology practicum.

CSD 687. Extern Speech Practicum. 1 credit.

Supervised speech-language pathology practicum.

CSD 688. Extern Speech Practicum. 1 credit.

Supervised speech-language pathology practicum.

CSD 686. Externship. 1 credit.

Supervised speech-language pathology practicum.

CSD 690. Advanced Seminar in Speech Pathology and Audiology. 1-3 credits.

This course will cover advanced considerations relative to the diagnosis and management of individuals with speech, language and hearing disorders. *Prerequisite: Permission of department head.*

CSD 691. Professional Seminar in Audiology. 1-3 credits.

A review of professional training emphasizing case management using a grand rounds approach. This course will serve as a capstone experience integrating theory and practice; it will be offered in conjunction with the full-time externship experience.

CSD 698. Comprehensive Continuance. 1 credit.

Continued preparation in anticipation of the comprehensive examination. Course may be repeated.

CSD 699. Thesis Continuance. 2 credits.

Continued study, research and writing in the area of thesis concentration. Course may be repeated as needed will not be required to complete the written comprehensive examination. Student should talk with their adviser prior to selecting this option.

CSD 700. Thesis. 1-6 credits.

The thesis option generally requires three to four semesters to complete. Students choosing the thesis option will not be required to complete the written comprehensive examination. Student should talk with their adviser prior to this option.



# Computer Science

Dr. Christopher J. Fox, Interim Director

For application and information, call (540) 568-8772

<http://www.cs.jmu.edu/cs/grad>

## Professors

J. Marchal, C. Reynolds

## Associate Professors

C. Abzug, E. Adams, D. Bernstein, J. Cordani, C. Fox,  
J. A. Harris, M. Heydari, R. Mata-Toledo, R. Tucker

## Assistant Professors

P. Cushman, M. Eltoweissy, A. Lagman, J. McDermott

## Instructors

M. Norton

The Computer Science department offers a program of study leading to the *Master of Science* in computer science. The primary purpose of the program is to promote the continuing self-development of individuals currently engaged in science-, technology- and engineering-related fields and to prepare persons who have completed undergraduate majors in these fields for entry into a career in the numerous areas that use computing technology. The program is designed to augment the student's existing skills with the skills of a graduate program in computer science.

Admission to the program is competitive. Preference will be given to applicants whose undergraduate studies were in computer science, mathematics, the physical sciences or engineering. Students strong in other disciplines are also encouraged to apply. Generally, these students will be admitted on a conditional basis, and they will need to complete suitable preparatory courses.

Full-time graduate students can expect to complete their graduate course work in 18 months. Part-time graduate students seeking to advance their business or professional careers may pursue their academic objectives at a pace commensurate with their current job-related responsibilities.

## Computer Science

The minimum requirement for *the Master of Science* degree with a major in computer science is 30 hours of graduate credit in computer science.

Each student must satisfy the minimum requirements of nine credit hours and present at least 21 credit hours of approved graduate-level electives in computer science. This must include at least 15 credit hours of courses numbered 600 or above. The student may select a thesis in computer science.

## Master of Science in Computer Science

Minimum Requirements	Credit Hours
CS 550. Operating Systems I	3
CS 555. Software Development	3
CS 574. Database Systems I	3
Approved electives in computer science, including sufficient courses numbered 600 level or above	21
	30

## Certificates

The program offers the following three certificates, the courses of which may be used as electives in the *Master of Science* program. At most, one certificate may be taken as a post-baccalaureate student before seeking admittance to the graduate program.

### Networks and Data Communications

CS 550. Operating Systems I  
CS 649. Operating Systems II  
CS 650. Computer Networks

### Software Engineering

CS 555. Software Development Paradigms  
CS 665. Software Engineering I  
CS 666. Software Engineering II

### Database Management Systems

CS 574. Database Systems I  
CS 674. Database Systems II  
CS 676. Distributed Databases

## Concentration in Information Security

The program offers the following concentration in information security in a remote, electronic distance-learning format which, while satisfying all requirements for *the Master of Science* program, is especially appropriate for people with professional interests in information security. Further information can be obtained from the INFOSEC Program website <http://www.infosec.jmu.edu>.

Students accepted into the traditional, on-campus *Master of Science* in Computer Science may not routinely take distance-learning Information Security courses as electives. The distance-learning courses are available only to students in the Information Security concentration, who will pay a higher tuition rate than students taking traditional courses at the university. The current distance-learning rate is published annually and can be ascertained from the Graduate School website under "Announcements." Students whose employers have contracted with the university for this concentration may pay at a different rate.

	<b>Credit Hours</b>
<b>Minimum Requirements</b>	
CS 550. Operating Systems I	3
CS 555. Software Development	3
CS 574. Database Systems I	3
CS 620. Introduction to Information Security	3
CS 621. Trusted Systems	3
CS 622. Administrative Security Procedures	3
CS 625. Information Security Audit Controls	3
CS 626. Information Systems Vulnerability and Risk Analysis	3
CS 627. Cryptography: Algorithms and Applications	3
CS 695. Information Security Capstone Project	3
	30

## Course Offerings

### Computer Science

CS 501. Workshop in Computer Science. 1-3 credits.

Designed to provide workshop experience in a variety of computing areas. Does not satisfy graduation requirements for the *Master of Science* degree in computer science. *Prerequisite: Permission of the program coordinator.*

CS 510. Accelerated Fundamentals of Computer Programming. 3 credits. Fundamental programming techniques using the C programming language to support algorithm development and procedural abstraction as a means of problem solving. Students also learn elementary data structures including character strings, records and files. Does not satisfy graduation requirements for the Master of Science degree in computer science.

CS 511. Accelerated Fundamentals of Computer Systems. 3 credits. An explanation of elementary computer organization and network communication by using the Unix operating system including use of a distributed hierarchic file system, other network resources and command scripting. Does not satisfy graduation requirements for the Master of Science degree in computer science. *Prerequisite: CS 510 or equivalent.*

CS 512. Advanced Fundamentals of Computer Programming. 3 credits. Various advanced problem-solving strategies that use object-oriented techniques to develop algorithms in the C++ programming language. Students also learn advanced data structures including stacks, queues and lists using both static and dynamic memory allocations and including elementary performance analysis of these data structures. Does not satisfy graduation requirements for the Master of Science degree in computer science. *Prerequisite: CS 510 or equivalent.*

CS 550. Operating Systems I. 3 credits.

Concepts and principles of multiple-user operating systems. Memory, CPU, I/O device allocation, scheduling and security. Memory hierarchies, performance evaluation, analytic models, simulation, concurrent programming and parallel processors. Completion of a student project is a significant part of the course. *Prerequisite: CS 350 or CS 511 or equivalent.*

CS 552. Applied Complexity Theory. 3 credits.

Algorithms (sorting and searching, graph theory, arithmetic) with space and time complexity and analyses; formal models of computation; theoretical aspects of computational complexity, including complexity measures and hierarchies, and intractable problems and the P=NP question. Other topics in theoretical computer science with applications. *Prerequisite: CS 350 or CS 511 or equivalent.*

CS 555. Software Development Paradigms. 3 credits.

The software development life cycle, software project management, development tools and methods, software quality assurance, programming language paradigms and their use in software development. A significant development project will be completed by teams of students. *Prerequisite: CS 512 or equivalent.*

CS 574. Database Systems I. 3 credits.

Types of physical storage and access methods; data models; relational algebra and calculus, and definition and query languages; dependencies, decomposition and normalization; database design; recovery; consistency and concurrency; distributed databases. Examples from commercial databases. *Prerequisite: CS 350 or CS 511 or equivalent.*

CS 585. Selected Topics I. 3 credits.

Study of selected topics not otherwise covered in the regular offerings of the department. May be repeated for credit when course content changes.

CS 588. Introduction to Computer Graphics. 3 credits.

Problems, objectives and study of computer graphics to include hardware, software and applications. Graphics data structures and languages. Vectors, curves and character generation. Interactive display devices. Construction of hierarchical image lists. Surface representations. Discussion of problems of current interest. *Prerequisite: CS 510 and knowledge of calculus.*

CS 620. Introduction to Information Security. 3 credits.

Provides the manager with a broad overview of the threats to the security of information systems, the responsibilities and basic tools for information security, and for the areas of training and emphasis needed in organizations to reach and maintain a state of acceptable security. The course provides an introduction to the language of information security and provides an overview of hardware, software, and firmware components of an information security system, and their integration into an organization's information system operations for policy makers. The object of this course is to enable managers to make more informed policy and procedural evaluations in the information security area.

CS 621. Trusted Systems. 3 credits.

Definition of a trusted system and considerations pertaining to the design, evaluation, certification and accreditation of trusted systems, to include hardware considerations, software considerations such as developmental controls, validation/verification, assured distribution and other assurance issues. Implementation, configuration management and systems administration of trusted systems. Trusted applications and trusted database issues. Importance of aggressive monitoring and setting traps for the intruder. Importance of understanding the psychology and successful *modus vivendi* of the attacker to generating and maintaining a powerful defense. *Prerequisite: CS 620.*

CS 622. Administrative Security Procedures. 3 credits.

Development and evaluation of administrative policies and procedures required to administer an information system in a secure environment will be explored. Emphasis will be on complying with federal information security guides and directives. *Prerequisite: CS 620.*

CS 625. Information Security Audit Controls. 3 credits.

A course for the information system security professional emphasizing administrative roles in the audit and control of information systems. The administrator's role in secure system accountability and documentation will be stressed. *Prerequisite: CS 621.*

CS 626. Information Systems Vulnerability and Risk Analysis. 3 credits. The identification of vulnerabilities and risks inherent in the operation and administration of information systems will be explored. Countermeasures will be discussed and documented in an effort to counter identified vulnerabilities. *Prerequisites: CS 621 and CS 622.*

CS 627. Cryptography: Algorithms and Applications. 3 credits. Commonly used forms of cryptography, including their costs and benefits to support computer security. Design and analysis of systems that provide protection for communications or resist cryptographic analysis. Social implications of current cryptographic systems. *Prerequisite: CS 574.*

CS 634. Natural Language Processing. 3 credits. Implementation of computer-based, natural language understanding systems; natural language syntax and processing knowledge representation, natural languages generation. *Prerequisite: CS 555.*

CS 644. Artificial Intelligence. 3 credits. Application of heuristics to problem solving; perception and pattern recognition; search methods, production systems and knowledge representation; applications to expert systems, automatic programming and natural language processing. *Prerequisite: CS 555.*

CS 649. Operating Systems II. 3 credits. A study of various topics in operating systems such as distributed file systems, security, architectural support for operating systems, performance measurement, recovery management and real-time systems. *Prerequisite: CS 550.*

CS 650. Computer Networks. 3 credits. The Open Systems Interface reference model. Network hardware, topologies and routing algorithms, reliability and security, application programs. Examples of various networks and protocols such as ETHERNET, TCP/IP, NFS, USENET. *Prerequisite: CS 550.*

CS 655. Programming Languages II. 3 credits. A study of various topics in programming languages such as proof techniques, formal specification of syntax and semantics, operational, denotational and axiomatic semantics. *Prerequisite: CS 555.*

CS 665. Software Engineering I. 3 credits. In-depth study of selected topics in the early phases of the software life cycle, such as requirements engineering, cost estimation techniques, project planning and tracking, analysis and design methods, and software reuse. *Prerequisite: CS 555.*

CS 666. Software Engineering II. 3 credits. In-depth study of selected topics in software quality assurance and later phases of the software life cycle, such as software process management and improvement, standards and guidelines, reviews and inspections, testing, maintenance, and re-engineering. *Prerequisite: CS 555.*

CS 674. Database Systems II. 3 credits. Continuation of CS 574. *Prerequisite: CS 574.*

CS 676. Distributed Databases. 3 credits. Distributed databases and networks, levels of distribution, transparency, fragments and their allocation, distributed queries, optimization and concurrency. *Prerequisite: CS 574.*

CS 680. Reading and Research. 3 credits. Opportunity for supervised reading and research in areas of special interest to the student. Reading and research may be done only in the major field of study.

CS 685. Selected Topics II. 3 credits. An in-depth study of selected topics not otherwise covered in the regular offerings of the department. May be repeated for credit when course content changes.

CS 690. Practicum. 3 credits. Provides a variety of supervised project, laboratory, leadership and instructional experiences. This course is graded on a satisfactory/unsatisfactory (S/U) basis. May be repeated for credit, but no more than six hours can be counted toward a degree program. *Prerequisite: Consent of instructor and program coordinator.*

CS 695. Information Security Capstone Project. 3 credits. An in-depth study of a given information system facility that analyzes and makes recommendations about the security of the facility to include an analysis of vulnerability and risk, a plan for security auditing, recommendations about possible use of trusted system technology and cryptography, and identification of the relevant regulatory, legal and ethical issues. *Prerequisites: CS 620, CS 621, CS 622, CS 625, CS 626 and CS 627.*

CS 698. Comprehensive Continuance. 1 credit. Continued preparation in anticipation of the comprehensive examination. Course may be repeated as needed.

CS 699. Thesis Continuance. 2 credits. Continued study, research and writing in the area of thesis concentration. Course may be repeated as needed.

CS 700. Thesis. 6 credits. This course is graded on a satisfactory/unsatisfactory (S/U) basis.

# Education

Dr. Charles R. Watson, Interim Director of the School of Education

For information, call (540) 568-2813

<http://www.eml.jmu.edu/ed/School.html>

Faculty members from the School of Education support the *Master of Arts* in Teaching, *Master of Education* and *Master of Science* in Education degrees.

## Early Childhood Education

### Professors

S. Fairchild, A. Leonard, M. Ross

### Associate Professors

T. Harris, D. Martin

## Middle Education

### Associate Professors

G. Green, C. Watson

### Assistant Professor

E. Savage-Davis

## Reading Education

### Associate Professor

R. Short, Jetton

### Assistant Professors

K. Broaddus, L. Dellinger

## School Administration

### Associate Professor

M. Rettig

### Assistant Professor

J. Fahey

## Secondary Education

### Professors

V. Allain, E. Ihle, A. Pettus

### Associate Professors

L. Bolt, D. Zimmerman

### Assistant Professor

S. Lopes-Murphy, B. Stern

## Adult Education/Human Resource Development

### Associate Professors

J. Dickens, D. Foucar-Szocki, O. Griffin, M. Noblitt

## Special Education

### Professors

D. Herr, R. Linn, F. Luth, E. Minskoff, J. Minskoff

### Associate Professor

K. Santos

### Assistant Professors

D. Allsopp, C. Beverly

Graduate programs in the School of Education are designed for students seeking careers in education professions. The school offers programs leading to the *Master of Arts in Teaching* degree, the *Master of Education* degree and the *Master of Science in Education* degree. Individuals must meet Graduate School admission requirements before entering programs in the School of Education.

Exceptions to program requirements must be approved in writing by the program coordinator and by the dean of the Graduate School. When exceptions relate to licensure, the approval of the director of the School of Education is also required.

## Master of Arts in Teaching Degree

The Master of Arts in Teaching (MAT) at JMU is designed to lead to initial licensure to teach in some areas. Two program formats exist for completing a MAT degree. One program format (The Fifth-Year Format) forms the last phase of five-year teacher licensure programs. This format is designed to serve students who have completed the appropriate prerequisite requirements in an undergraduate education program at JMU. (The course offerings listed in the fifth-year MAT will not be offered until the fall semester of 2004, to accommodate first year undergraduate students entering JMU in the fall of 2000.) The second MAT program format (The Content Minor Format) provides an option for individuals who have completed an undergraduate major corresponding to the required content of the teaching area to be pursued. This MAT requires graduate level course work in an arts and sciences content discipline related to the content of the teaching area.

To be fully admitted to the MAT degree program, students must have:

- Satisfied all requirements for admission to teacher education, and
- Satisfied all requirements for admission to the Graduate School, including.
  - completed requirements for a baccalaureate degree from an accredited college/university, and
  - taken the Graduate Record Examination and scored at the 25<sup>th</sup> percentile or above.

### The Fifth-Year Format

The fifth-year MAT is designed to allow students to meet requirements for a license to teach in the public schools of Virginia. (*Courses in the fifth-year MAT licensure programs may not be offered until the fall semester of 2004.*) Students who are admitted to these programs must have completed pre-requisite courses and experiences in education at the undergraduate level.

Undergraduate students and post-baccalaureate students planning to teach at the PreK-6, 6-8, and 6-12 levels should consult with a program coordinator or advisor to ensure completion of the required prerequisites. A specific arts and sciences major or equivalent coursework and experiences may be required for admission to some programs of the MAT and for licensure to teach in certain disciplines and grade levels. Because the fifth-year MAT program format is new at JMU, minor changes may be made in the offerings and requirements listed over the next few years. Therefore, students should check with their advisor frequently to be apprised of changes that may affect them.

The fifth-year licensure programs build on the extensive foundational course work and experiences students have completed in their undergraduate programs. Students will have completed the prescribed course work to develop the knowledge, skills, attitudes, and behaviors needed for successful completion of the MAT.

The specific program and licensure area requirements are listed in the following sections.

## Elementary Education, Grades PreK-6

*Dr. Doris Martin, Coordinator*

For information, call (540) 568-6337

The Elementary Education Master of Arts in Teaching Program prepares students to become teachers of students in grades PreK-6. The Elementary Education Program is based on the successful completion of the Interdisciplinary Liberal Studies major or equivalent. The program is designed to provide students with a background of content information necessary for teaching children in the elementary grades.

The program of study for Elementary Education is as follows:

### BA/BS Undergraduate Degree

General Education	41-44
Interdisciplinary Liberal Studies Major	42-44
Early Childhood Licensure Program	49

### MAT Program

Graduate Level Pre-professional Studies	34
Total hours	166-171

### Undergraduate Major

It is strongly recommended that all students in the Elementary Education Program major in Interdisciplinary Liberal Studies. This program, with its expanded approach to the core disciplines, and its dual concentrations in either the Humanities or Natural Sciences and Mathematics meets the requirements for licensure in the Commonwealth of Virginia.

## Undergraduate Course Requirements:

	Credit Hours
<b>Third Year</b>	
GPSYC 160. Life Span Human Development	3
EDUC 360. Foundations of American Education	3
ECED 371. Practicum in the Early Childhood Education	2
ECED 372. Introduction to Early Childhood Education	3
READ 366. Early Literacy Development and Acquisition	3
ECED 441. Practicum in Child Development	1
ECED 442. Child Development	3
ECED 443. Practicum in Primary Grades	1
ELED 444. Children and Math	3
READ 436. Literacy Learning in the Elementary Grades	3
Major requirements	11
	36
<b>Fourth Year</b>	
ECED 461. Practicum in Curriculum	3
ECED 462. Science and Children	3
ECED 464. Social Studies and the Integrated Day	3
ECED 480K. Student Teaching (kindergarten)	8
ECED 480P. Student Teaching (primary)	8
ECED 481. Fieldwork in Families and Communities	2
Major requirements	5
	32

## Graduate Courses

Students beginning the graduate portion of the program must meet all Graduate School requirements and criteria for admission; it is expected that students will complete the admission process during their senior year. In addition, students must meet all graduate level graduation requirements.

ELED 524. Differentiating Instruction: Ability, Culture, & Language	3
ELED 521. Practicum in Preadolescent Development*	1
ELED 522A&B. Preadolescent Development*	3
READ 590. Reading Across the Curriculum	3
ELED 581. Practicum in Curriculum*	1
ELED 634. Instructional Strategies for the Elementary Grades*	3
ELED 680. Student Teaching in the Elementary Grades*	4
ELED 632. Inquiry in Elementary Education*	3
ECED 510. The Creative Arts in Early Childhood	3
ECED 541. Working with Parents	3
ECED 613. Professionalism & Advocacy	3
ECED 619. Seminar in Early Childhood Education	3
ELED 633. Seminar in Education Inquiry*	1
TOTAL	34

\*Will not be available until Summer 2002.

## Middle School Education, Grades 6-8

*Dr. Gerald Green, Coordinator*

For information, call (540) 568-3580

### Program of study for Middle Education

BA/BS Undergraduate Degree	Credits
General Education	41-44
Interdisciplinary Liberal Studies Major	42-44
Pre-Professional Studies in Education	48
<b>MAT Program (Graduate)</b>	
Graduate Level Professional Studies	31
Total Credits	163-167

## Undergraduate Major

It is strongly recommended that all students in the Middle Education Program major in Interdisciplinary Liberal Studies. This program, with its expanded approach to the General Education Core, and its dual concentrations in either the Humanities (English, History, Social Sciences) or Natural Sciences and Mathematics, meets the requirements for the Commonwealth of Virginia and most other states that require a two-subject endorsement for middle grades teachers. In addition, students may choose Integrated Science and Technology as a concentration that meets the subject endorsement criteria.

## Undergraduate Course Requirements

### Second Year

GPSYC 160. Life Span Human Development	3
PSYC 270. Psychology for Teachers of the Preadolescent and Adolescent Child	3
EDUC 360. Foundations of American Education	3

### Third Year

EDUC 310. Teaching in a Diverse Society	3
EDUC 311. Field Experience in Middle and Secondary Education	2
READ 312. Reading and Writing across the Curriculum in the Middle Grades	3
MSSE 370. General Methods and Technology	3
MSED 413. Practicum II Methodology in the Middle Grades	2
READ 472. Literacy, Assessment, and Instruction in Content Areas for the Middle Grades	3

### Fourth Year

MSSE 470. Content Methods Courses	
Students complete two in appropriate areas	6
MSSE 470B. English/Language Arts	
MSSE 470C. Foreign Language	
MSSE 470H. Social Studies	
MSSE 470I. Science	
MSSE 470K. Mathematics	
MSSE 471. Field Experience in Middle and Secondary Education	4
Students complete this course twice in appropriate areas	
EDUC 420. Classroom Management and Collaboration	3
SPED 460. Differentiation of Instruction and Academic Collaboration	3
	39

## Graduate Courses

Students beginning the graduate portion of the program must meet all Graduate School requirements and criteria for admission; it is expected that students will complete the admission process early in their senior year. In addition, students must meet all graduate level graduation requirements (comprehensive project, etc.)

MSSE 630. Inquiry the Classroom	3
MSSE 600. Secondary Education in America	3
MSSE 625. Learning and Assessment in Middle and Secondary Schools	3
MSSE 580. Internship	8
MSSE 650. Internship Seminar	2
MIED 610. Collaborative Leadership in Schools	3
MIED 620. Applied Research in Middle Education	3
MIED 656. Seminar in Middle Education	3
Approved Electives	3

31

## Secondary Education, Grades 6-12

*Dr. Elizabeth Ihle, Coordinator*

For information, call (540) 568-6486

The Secondary Education Master of Arts in Teaching prepares individuals for initial licensure to teach students of grades 6 through 12.

The Secondary Education Program emphasizes the preparation of effective and reflective teachers who are knowledgeable in the content they are preparing to teach and cognizant of the characteristics of adolescents, 12-18 years of age. The licensure areas for which individuals are prepared include biology, business and marketing education, chemistry, earth and space science, English, English as a Second Language, foreign languages, mathematics, physics, history and social sciences, and technology education.

The program is designed to enable students to develop a strong professional education on a foundation of undergraduate preparation in General Education, an appropriate major, and introductory professional education experiences.

Although individual programs of study will vary depending upon students' major and licensure area, the following represents the breakdown of the required credits in a typical program:

### The Program of Study

General Education	41-44
Major Field of Study	36-60
Undergraduate Pre-professional Studies	31
Total Hours	108-135

Undergraduate students minoring in secondary education must complete an arts and sciences major or the equivalent in a specific discipline related to the teacher licensure area of intent. Majors related to approved licensure areas at JMU include biology, business and marketing education, chemistry, English, foreign languages, geology, interdisciplinary social sciences (ISS), mathematics, physics and interdisciplinary science and technology (ISAT).

### Undergraduate course requirements

	Credit hours
<b>Second Year</b>	
GPSYC 160. Life Span Human Development	3
PSYC 270. Psychology for Teachers of the Pre-adolescent and Adolescent Child	3
EDUC 360. Foundations of American Education	3
<b>Third year</b>	
READ 432. Reading and Writing Across the Curriculum	3
EDUC 310. Teaching in a Diverse Society	3
EDUC 311. Field Experience in Middle and Secondary Education <sup>1</sup>	2
MSSE 370. General Teaching Methods and Instructional Technology	3

<b>Fourth year</b>	
EDUC 420. Classroom Management and Professional Collaboration	3
SPED 460. Differentiation of Instruction and Academic Collaboration	3
MSSE 470. Methods of Teaching Specialized sections in various content areas <sup>2</sup>	3
MSSE 471. Field Experience in Middle and Secondary Education <sup>3</sup>	2
	31
<b>MAT Graduate Level Requirements</b>	
MSSE 625. Learning and Assessment in Middle and Secondary Education	3
READ 532. Secondary Literacy Assessment and Instruction in the Content Areas	3
READ 533. Literacy Practicum in Secondary Education	2
MSSE 630. Educational Inquiry	3
MSSE 580. Internship in Middle and Secondary Education	8
MSSE 650. Internship Seminar	2
MSSE 680. Applied Research in Middle and Secondary Education	3
MSSE 600. Middle and Secondary Education in Americas	3
Electives	3
	30

### The Content Minor Format

Students admitted to this program are expected to have completed undergraduate majors in corresponding subject matter areas as those graduate programs in which they wish to obtain additional content preparation. Students are required to provide transcript evidence that they have completed liberal studies and specialty area courses comparable in content and total hours to those expected of an undergraduate major in the academic subject area of proposed graduate study. Those students not having such course work will be required to complete any specifically required undergraduate-level general education and/or subject matter content courses under terms of provisional admission to graduate study as a degree-seeking student.

Students must also apply for and be admitted to teacher education at JMU. Students must initiate their application by contacting the Office of Teacher Education Services. Criteria for admission are described in the undergraduate catalog and include a 2.5 grade point average and PRAXIS I scores.

### Licensure Requirements

The *Master of Arts in Teaching* is designed to lead to initial licensure to teach in secondary schools. The program includes 27 hours of professional education course work and 12 additional hours in the subject field on the graduate level. At least half of a student's program of study must be taken at the 600 level. Students in the program are expected to have completed a baccalaureate degree with a major in the relevant content subject area such as English or history. Depending on a student's prior academic preparation, other prerequisites course work may be needed for unconditional admission to this graduate program and to meet teacher licensure requirements.

### Program of Study

	<b>Credit Hours</b>
<b>First Two Semesters</b>	
EDUC 620. Changing Contexts of American Schools	3
PSYC 614. Advanced Developmental Psychology	3
EDUC 540. Educational Technology	3
Choose one of the following:	3
EDUC 630. Inquiry in Education	
A research/methodology offering in content area †	
Subject content area	12
<b>Third Semester</b>	
SEED 371. Clinical Techniques ••	3
SEED 381. Field Experience in Secondary Education	3
SEED 615. Seminar on Teaching in Contemporary Schools	3
<b>Fourth Semester</b>	
SEED 580. Student Teaching	6
	39

† At least half of the hours in the subject content area (as well as in the overall program of study) must be at the 600 level.

•• The teaching methodology course to be taken depends on the student's content subject area.

### Master of Education Degree

The mission of the *Master of Education* degree is to prepare master teachers, reading specialists and school administrators for roles in NK-12 schools. These school professionals will possess the knowledge, skills and dispositions to:

- design and deliver curricula for diverse learners,
- create and maintain learning climates,
- use assessment strategies,
- be reflective practitioners who continually evaluate their actions,
- collaborate with colleagues, parents and others, and
- engage in professional development.

The *Master of Education* degree provides advanced preparation for teachers and other school professionals who already hold initial teaching licensure. Students take a core of courses (minimum of 12 credit hours) and a set of courses in a concentration (minimum of 18 credit hours). Concentrations are available in early childhood education, middle school education, reading education, school administration and secondary education. Students may elect to concentrate in more than one area; however, all requirements of each concentration must be met.

The program of study for a *Master of Education* degree is as follows:

<b>Minimum Requirements</b>	<b>Credit Hours</b>
EDUC 620. Changing Contexts of American Schools	3
EDUC 630. Inquiry in Education	3
EDUC 631. Seminar in Educational Inquiry	1
EDUC 640. Teaching, Learning and Curriculum	5
Concentration courses	12-18
Electives	0-9
	30-39

## Admissions Criteria

- GRE scores at the 25th percentile or higher for both verbal and quantitative sections
- Undergraduate grade point average of 2.75 or higher
- Baccalaureate degree from a regionally accredited college/university
- Professional resumé
- Hold or have held a valid teaching license
- A two- to three-page written statement (double spaced) describing the applicant's professional background, the educational issues that the applicant would like to address in the master's program and the applicant's long-term professional goals.
- Interview with one or more representatives of their chosen concentration area to ensure the applicant understands the particular perspectives, goals and requirements of the concentration area program they will be entering.

All criteria are considered when reviewing the students for admission to the *Master of Education* degree program. However, no one criterion will be the sole reason for lack of admission to the program.

## Other Requirements

Prerequisites and other requirements of the *Master of Education* degree are:

- Entering students must possess basic literacy skills in computing and the use of electronic technologies to access and exchange information. If a student lacks these skills, he or she must take EDUC 505, Technology Skills for Educational Inquiry for one credit.
- It is strongly recommended that students take core courses before taking concentration courses. The core is foundational and influences, generalizes to and relates to other components of the master's program.

## Early Childhood Education Concentration

*Dr. Doris Martin, Coordinator*

For information, call (540) 568–6337

The *Master of Education* degree with a concentration in early childhood education is for teachers working in pre-school through third-grade classrooms. It is designed for those who want to extend their professional competence through an in-depth examination of their own practice using the perspectives of child development theories and the knowledge of current research in early childhood education. Building on the foundation of the professional core, the early childhood education concentration will provide opportunities for students to apply their knowledge through individual and collaborative projects and presentations, field-based curriculum implementation and evaluation, and the use of reflective classroom inquiry and portfolios.

This program meets the requirements for the advanced preparation in early childhood education as established by the National Association for the Education of Young Children.

## Minimum

### Requirements

	<b>Credit Hours</b>
<i>Master of Education</i> core courses	12
ECED 509. Constructivist Curriculum Design and Evaluation	3
ECED 510. The Creative Arts in Early Childhood	3
ECED 613. Professionalism and Advocacy in Early Childhood	3
ECED 614. Advanced Theories in Child Development	3
ECED 616. Advances in Early Childhood Practices	3
ECED 619. Seminar in Early Childhood Education	3
Electives •	6
	36

• Selected from the offerings of the university with approval of the adviser.

## Middle Education Concentration

*Dr. Gerald Green, Coordinator*

For information, call (540) 568–3580

The *Master of Education* degree with a concentration in middle education is designed as advanced preparation for teachers working with fourth- through eighth-grade students. This program helps students create an intellectual framework as the basis for implementing new curricular programs as well as evaluating current curricular programs in middle education. Through examination and analysis of current theory and research, as well as completing school-based research projects, students become equipped to better manage educational changes, actively collaborate with professional peers and perform in a manner based on current research and standards of expert professional practice.

To complete a *Master of Education* with a concentration in middle education, the student will complete a minimum of 30 semester hours of course work organized as follows: professional core, 12 hours; concentration, nine hours; approved electives, nine hours. The student must also complete a comprehensive examination associated with MIED 620, Applied Research in Middle Education.

	<b>Credit Hours</b>
<i>Master of Education</i> core courses	12
MIED 610. Collaborative Leadership in Schools	3
MIED 620. Applied Research in Middle Education	3
MIED 656. Seminar in Middle Education	3
Approved electives	9
	30

• Courses included as electives must be selected to develop the professional needs and interests of the student. Electives must be approved by the major adviser and selected from the graduate offerings of the university.



## Reading Education Concentration

*Dr. Ruth Short, Coordinator*

For information, call (540) 568-2938

The *Master of Education* degree with a concentration in reading education is designed for persons preparing to fill one of two roles in school settings:

- reading specialist who works with teachers in a school to teach reading and who will collaborate with a wide array of school personnel (e.g., teachers, principals, specialists) and parents; develops reading curricula, implements reading curricula, and administers reading assessments; and conducts in-service training; and
- classroom teacher who seeks to improve his or her knowledge and teaching of reading.

This program meets course work requirements for the preparation of reading specialists and reading teachers established by the Virginia Department of Education and the International Reading Association. Licensure to teach is a prerequisite for receiving the degree. Students who desire both licensure in teaching and a reading endorsement can be accommodated. Individuals who have completed three years of successful teaching experience, have completed the master's degree with a concentration in reading and who hold collegiate professional licensure may be recommended by the university for endorsement as reading specialists. Prerequisites are a course in developmental reading and a course in children's or adolescent literature.

The *Master of Education* degree with a concentration in reading education is guided by a set of principles and beliefs about reading that include:

- reading being a professional field of study consisting of a variety of traditions, thought and practices emanating from a long history of research and practice,
- reading spanning the K-12 curriculum and is interdisciplinary in nature, and
- reading being grounded in and driven by the following theoretical tenets.
  - Reading is a process of constructing meaning.
  - Reading is a social engagement.
  - The learner is the center of the construction of meaning.
  - Reading comprehension is the meaning that is constructed by the individual in social contexts.
  - Reading assessment is a perspective on reading curriculum.
  - Reading is an instance of language.
  - Reading involves multiple ways of knowing.

To complete a *Master of Education* degree with a concentration in reading education, the student will complete a minimum of 33 credit hours of course work organized as follows: professional core, 12 hours; concentration, 18 required hours and one elective. In addition, the student must complete any necessary prerequisites and a comprehensive examination.

Eighteen hours of reading courses are required by the Virginia Department of Education for licensure as a reading specialist.

<b>Minimum Requirements</b>	<b>Credit Hours</b>
<i>Master of Education</i> core courses	12
READ 580. Foundations of Reading	3
READ 590. Reading Across the Curriculum	3
READ 600. Inquiry in Reading	3
READ 658. Principles, Practices and Applications of Reading Assessment	3
READ 660. Practicum in Principles, Practices and Applications of Reading Assessment	3
READ 665. Organization and Supervision of Reading Programs	3
Elective (selected in consultation with adviser)	3
	33

## School Administration Concentration

*Dr. Michael Rettig, Coordinator*

For information, call (540) 568-3889

The program offers a graduate degree in school administration which is designed to provide students with the knowledge, skills and experiences to function effectively as a school principal, assistant principal or central office administrator in a preK-12 educational setting. The program is organized around the administrator's central role as the interpreter, facilitator and initiator of educational change leading to effective schools. Students seeking to meet these requirements should confer with the program coordinator. The following combination of criteria, in addition to the Graduate School and *Master of Education* requirements, are used to recommend a candidate for admission to the school administration program.

- Three years of full-time teaching experience in the school setting.
- Recommendations from school personnel (administrative and instructional) familiar with the candidate's teaching performance and leadership potential.
- Faculty interview session results (to assess conceptual and oral performance).
- Writing samples provided by the candidate in response to questions administered by program faculty (to assess organizational and writing performance).

Students may be required to complete several other tasks and activities which are designed to assess leadership ability and other skills and competencies as a part of the admissions, retention, and program completion processes. Some of these activities may require students to pay additional fees to participate. All students must pass a comprehensive examination before completing the program. The comprehensive examination will be designed to assess attainment of some of the desired instructional outcomes of the program. Some program offerings require prerequisites for enrollment. These requirements enable a systematic and developmental approach to preparing school administrators. (See course descriptions for prerequisites.)

Minimum Requirements	Credit Hours
Master of Education core courses	12
ADSU 540 Technology for School Administrators*	3
ADSU 640. The Fundamentals of Educational Administration	3
ADSU 642. Leadership for School-Community Relations	3
ADSU 643. The Principalship	3
ADSU 644. Supervision and Development of School Personnel	3
ADSU 641. School Law	3
ADSU 652. School Finance and Business Management	3
EDUC 625. Evaluation in Education	3
ADSU 658. Practicum in School Administration	3
ADSU 668. Internship for School Administrators**	3
	36-42

\* Successful completion of the Administrative Technology Portfolio may be substituted for ADSU 540. A description of the requirements for the portfolio is available from the program coordinator.

\*\* May be complete pre- or post-Masters.

### Licensure Requirements

A student who has the appropriate teaching license and who completes the aforementioned program is eligible for the Master of Education degree and provisional endorsement in preK-12 administration and supervision in the Commonwealth of Virginia. Students desiring full endorsement as preK-12 administrators also must complete a minimum of 90 days or one semester of full-time (full school days) internship. State Department of Education guidelines offer the option of completing the internship either prior to graduation or during the first semester of employment as a school administrator. The internship is designed to have students experience the full range of duties encountered by an administrator and may be completed either during the program or after the master's degree has been awarded. Students will enroll in ADSU 668, Internship for School Administrators, to complete this requirement.

### Secondary Education Concentration

*Dr. Elizabeth Ihle, Coordinator*

For information, call (540) 568-6486. The *Master of Education* degree with a concentration in secondary education is designed to promote the continuing professional development of graduate students and practicing educators. Emphasis in the program is on helping students to gain the knowledge, understandings, attitudes and skills needed to enhance their professional qualities and competencies. These gains should enable students to become change agents for improving practices and conditions in education. Students are challenged to reflect on trends and issues impacting secondary schools, develop inquiry attitudes and skills for addressing problems, be active problem solvers and effective communicators, as well as knowledgeable about secondary schools, curriculum and students.

To complete a *Master of Education* degree with a concentration in secondary education, the student will complete a minimum of 33 semester hours of course work organized as follows: professional core, 12 hours; concentration, 12 hours; and appropriate elective options, 9-12 hours. The students also must complete any necessary pre-requisites and a comprehensive examination. Students

should consult with their adviser to plan a program to meet their educational and career objectives as well as minimum requirements for graduation.

Minimum Requirements	Credit Hours
Master of Education core courses	12
EDUC 625. Evaluation in Education	3
SEED 600. Secondary Education in America: Past, Present and Future	3
SEED 607. Secondary School Curriculum and Co-curriculum	3
SEED 660. Instructional Development in the Secondary School	3
Electives	9-12
	33-36

### Elective Option

Students must also choose one of the following three elective options.

#### Complementary Course Option

A student may plan with his/her adviser a selection of courses designed to meet the educational and career needs of the student. The course selections must reflect appropriate relationships to the student's overall program and goals. Courses of special interest may include those from administration and supervision, guidance and counseling, special education services, and reading.

#### Content Minor Option

Some discipline minors may require 12 credits while others require only 9 credits. Acceptable minors include art, biology, English, health sciences, higher education, history, kinesiology, mathematics, music, political science, and psychology.

#### Thesis Option

Students must take at least nine credit hours including EDUC 700, Thesis (six credits), and SEED 680, Reading and Research (three credits).

## Master of Science in Education

This degree includes a nine-credit-hour minor in secondary education or a nine-credit-hour minor in higher education (see Adult Education/Human Resource Development section), and is available to students majoring in health sciences or human resource development.

### Master of Science in Education Degree

Minimum Requirements	Credit Hours
SEED 600. Secondary Education in America: Past, Present and Future	3
SEED 607. Secondary School Curriculum and Curriculum	3
SEED 660. Instructional Development in the Secondary School	3
	9

## Master of Music

The music education degree under the *Master of Music* may include a nine-credit-hour option in secondary education or in higher education.

## Licensure to Teach ESL

Individuals who have completed requirements for an initial teaching license in Virginia may complete requirements at the graduate level for adding a teaching endorsement in English as a Second Language (ESL). The requirements for adding the ESL teaching endorsement include the following courses or equivalents: SCOM 248, ENG 417A, 6 credits in a modern foreign language, READ 515, an additional 3-credit reading course, EDUC 522, EDUC 525, and EDUC 528. Students interested in the ESL endorsement should contact the appropriate advisor and coordinator of the program and refer to the appropriate section in the undergraduate catalog.

## Course Offerings

### Early Childhood Education

ECED 501. Workshop in Early Childhood Education. 1-3 credits. Designed to provide students with workshop experiences related to current needs evident in early childhood programs. Topics selected will be determined by interest and demand. No more than six credit hours earned in workshops in education can be applied to a major program.

ECED 508. Observation and Study of the Young Child. (Summers.) 3 credits.

Skills for observing, recording and interpreting the behavior of the young child as a basis for adult intervention and guidance are developed. Laboratory experience is required. *Prerequisite: Six credit hours of psychology.*

ECED 509. Constructivist Curriculum Design and Evaluation. 3 credits. Theories and practices in the design, implementation, and evaluation of curriculum for nursery and kindergarten through third-grade children are examined with an emphasis on development through play.

ECED 510. The Creative Arts in Early Childhood Education. 3 credits. This course introduces theory and writing about creativity, and requires critical analysis of theory in terms of application in the early childhood classroom. Students plan, implement and evaluate activities in music, literature and the visual arts that are consistent with creativity theory.

ECED 540. Education for Parenthood. (Alternate Springs.) 3 credits. Study of the role and responsibility of parents in the development of the child. The ability to apply child development principles to day-to-day child rearing practices is emphasized. Resources for parents are considered.

ECED 541. Working with Parents of Young Children. (Spring Only.) 3 credits.

Study of the role of the teacher in relating to and working with parents. Methods of involving parents and providing for effective communication and parent education are emphasized. Resources for supporting parents in their roles are considered.

ECED 542. Child Development Programs. (Fall Only.) 3 credits. Study of programs in child development centers and nursery schools. Emphasis is placed on meeting the needs of young children in groups. Consideration is given to facilities, equipment and materials, program development, staff training and community resources.

ECED 613. Professionalism and Advocacy in Early Childhood Education. (Fall.) 3 credits.

An in-depth study of selected early childhood issues related to professionalism, advocacy, leadership, and working with families in a diverse community.

ECED 614. Advanced Theories in Child Development. 3 credits.

In-depth study of selected child development theories and direct observation as a foundation for purposeful and consistent instructional decision making. Emphasizes articulating a personally meaningful theory and gathering assessment data through direct observation for theory support. *Prerequisites: Core of M.Ed. and ECED 613. Corequisites: ECED 616*

ECED 615. Administration and Supervision in Early Childhood Education. (Alternate Springs.) 3 credits.

Study of the role of the administrator in facility planning, budgeting, staff development and personnel supervision in programs for young children. The role of the administrator as a change agent is examined. *Prerequisite: Permission of instructor.*

ECED 616. Advances in Early Childhood Practices. 3 credits.

This field-based course provides opportunity for the student to synthesize and apply child development and curriculum theory. As educational decision-makers, students plan, implement and evaluate learning experiences for a multiage group of children. *Prerequisites: Master of Education core courses and ECED 613. Corequisite: ECED 614.*

ECED 619. Seminar in Early Childhood Education. 3 credits.

Seminar experience providing in-depth consideration of the impact of research related to early childhood. Provides for integration and consolidation of knowledge acquired in graduate study and its application through inquiry experiences as the basis for instructional decisions. *Prerequisites: Master of Education core courses and ECED 613 or permission of the instructor.*

ECED 680. Reading and Research. 3 credits.

Directed reading and research in areas of student interest. Reading and research may be done only in the major field of study. A plan of study must be submitted in prescribed form and approved prior to registration for the course. *Prerequisites: EDUC 630 or equivalent and written permission of the adviser and department head.*

## Elementary

ELED 521. Practicum in Preadolescent Development. 1 credit.

Supervised practicum in upper elementary grades focusing on individual differences and developmental characteristics of the age group. *Co-requisite: ELED 522 A&B and ELED 524.*

ELED 522 A&B. Child and Preadolescent Development. 1, 2 credits. Study of children 8-12 years old to understand the physical, social, emotional and intellectual development of the age group and how this impacts teachers' decisions about curriculum. *Co-requisite: ELED 521 and ELED 524.*

ELED 524. Differentiated instruction: Abilities, Culture, and Language. 3 credits.

Focus on the variation that is inherent in working with school-age children, particularly the variation that occurs as a result of ability, environment and experience, and how instructional strategies and the curriculum must be designed to build on the strengths each child brings to the learning experiences. Beginning in the Summer of 2002, *Co-requisites: ELED 521 and 522 A&B.*

ELED 632. Inquiry in Elementary Education. 3 credits.

Focus on inquiry as the basis for learning, philosophical foundations of qualitative and naturalistic methodology and instruction in the use of qualitative methods in the study of education and to inform practice.

ELED 633. Seminar in Education Inquiry. 1 credit.

Focus on the application of education inquiry and its application to teaching. *Prerequisite: ELED 632.*

## Education

EDUC 501. Workshop in Education. 1-3 credits.

Workshop experience relative to the current needs evident in elementary and secondary school programs. No more than six credit hours earned in workshops in education may be applied to a major program in education or no more than three hours may be applied to a minor program in education.

EDUC 505. Technology Skills for Educational Inquiry. 1 credit.

This course is designed to prepare students for the effective use of the technology applications needed to conduct educational inquiry.

EDUC 520. Clinical Supervision Seminar. 3 credits.

Designed to help teachers and other school personnel develop skills for guiding, supervising and evaluating persons receiving clinical experiences in the school setting. Emphasis will be on cooperative supervision of clinical experiences, exploring various clinical models and reacting to simulated situations involving students receiving clinical and field experiences. *Prerequisite: Full-time teaching experience.*

EDUC 522. Concepts in Second Language Acquisition Research and Application. 3 credits.

This course will help students gain familiarity with second language acquisition research and practice, characteristics of second language learners, assessment and teaching strategies for second language acquisition.

EDUC 525. Cross Cultural Education. 3 credits.

The course provides students with knowledge of the effects of socio-cultural variables in an instructional setting.

EDUC 528. Assessment and Curriculum Development in English as a Second Language. 3 credits.

The course provides students with a variety of assessment practices for profiling non-native students' abilities and for developing appropriate curriculum.

EDUC 540. Educational Technology. 3 credits.

Develops concepts and skills related to educational technology including selecting, producing, evaluating and using traditional forms of media and newer information technologies, including computers and videodiscs, to enhance delivery of instruction.

EDUC 620. Changing Contexts of American Schools. 3 credits.

This course focuses on the nature of educational change in American schooling. Emphasis will be placed upon contemporary issues facing education, their historical and philosophical roots and the implementation of educational change.

EDUC 625. Evaluation in Education. 3 credits.

The course is designed to help practicing educators improve their development and use of assessment tools and techniques. Attention will also be given to analyzing and interpreting assessment results and investigating newer developments in the evaluation of learning and instructional programs. *Prerequisite: An instructional methods course.*

EDUC 630. Inquiry in Education. 3 credits.

Develop skills, insights and understandings which will enable the student to become an intelligent and critical consumer of educational inquiry, and a productive participant in the inquiry process. *Prerequisites: Appropriate technology skills or EDUC 505.*

EDUC 631. Seminar in Educational Inquiry. 1 credit.

Studies of topics related to educational inquiry. Emphasis on inquiry designs and skills specific to students' areas of inquiry interests. *Prerequisite: EDUC 630. This course is graded on an S/U basis.*

EDUC 640. Teaching, Learning and Curriculum. 5 credits

Focuses on the diverse nature of learners, the processes of learning and development, the role of the teacher, the design and delivery of instruction, and the processes and strategies of teaching as they relate to the development of curriculum. *Prerequisites: EDUC 620 and EDUC 630.*

**EDUC 670, 671, 673 are now AHRD 670, 671, 673**

EDUC 680. Reading and Research. 3 credits.

Opportunities for directed reading and research in areas of special interest. Reading and research may be done only in the major field of study. *Prerequisites: EDUC 630 or equivalent, and written permission of the adviser and program coordinator.*

EDUC 698. Comprehension Continuance. 1 credit.

Continued preparation in anticipation of the comprehensive examination. Course may be repeated as needed.

EDUC 699. Thesis Continuance. 2 credits.

Continued study, research and writing in the area of thesis concentration. Course may be repeated as needed.

EDUC 700. Thesis. 6 credits.

This course is graded on an S/U basis.

## Middle Education

MIED 501. Workshop in Middle Education. 1-3 credits.

Designed to provide students with workshop experiences related to current needs evident in middle education. The topics considered will be determined by interest and demand. No more than six credit hours earned in workshops in education can be applied to a major program.

MIED 505. Program Development in the Middle Grades. 3 credits.

An examination of the developmental characteristics of children in grades four through eight as these traits influence program design. Specific attention is given to interdisciplinary instructional teams, teacher advisory programs and exploratory study.

MIED 512. Curriculum for the Middle Grades. 4 credits.

Review of educational research and practice as it relates to curriculum development for children in grades four through eight. Emphasis is given to interdisciplinary study involving all curriculum areas with special focus on the areas of science and social studies.

MIED. 520. Instructional Strategies in the Middle Grades. 3 credits.

Study of educational research, theory and practice as related to the development and implementation of instruction in grades four through eight. Specific attention is given to planning, questioning skills, grouping strategies, evaluation and working with parents.

MIED 530. Teaching Mathematics in the Elementary and Middle Grades. 3 credits.

Individual and group study of content, methodology and instructional materials necessary to the design and implementation of instructional programs in modern mathematics. Attention is given to differentiation of instruction in terms of learning ability.

MIED 609. The Middle Grades Curriculum. 3 credits.

A study of the current practices and alternatives in curriculum development for the middle grades. Attention is given to differentiation of curriculum for pupils with differing learning abilities.

MIED 610. Collaborative Leadership In Schools. 3 credits.

Designed to provide students with research, theories and practices regarding teacher leadership and collaboration in school contexts and methods for addressing school-based improvement efforts and processes. Specific attention is given to collaboration and leadership toward community involvement and communication in middle schools.

MIED 620. Applied Research In Middle Education. 3 credits.

Provides students with resources, skills and knowledge required to successfully carry out a school-based, problem-centered research activity. Scholarly presentation of the research activity is required for completion of the program. *Prerequisites: EDUC 630<sup>0</sup>, EDUC 631<sup>1</sup>.*

MIED 656. Seminar in Middle Education. 3 credits.

An intensive study of selected problems in middle education. Research findings are reviewed and educational theory is explored.

MIED 680. Reading and Research. 3 credits.

Directed reading and research in areas of student interest. Reading and research may be done only in the major field of study. A plan for study must be submitted in prescribed form and approved prior to registration for the course. *Prerequisites: Written permission of adviser and program coordinator.*

## Middle and Secondary Education

MSSE 580. Internship in Middle and Secondary Education. 8 credits. Participants will experience the full range of conditions and tasks expected of a teacher for students in grades 6-12. They will be expected to develop and demonstrate competencies in teaching with the supervision and support of experienced teachers. *Prerequisite: Admission to Teacher Education and the MAT Program.*

MSSE 600. Middle and Secondary Education in America: Past, Present and Future. 3 credits.

This course provides a study of the middle and secondary school from historical, sociological, and philosophical perspectives and offers examinations of current social issues facing teachers and administrators, grades 6-12.

MSSE 625. Learning and Assessment in Middle and Secondary Education. 3 credits.

The course is designed to help prospective teachers develop competencies for designing and utilizing effective assessment strategies for determining student performance and progress in a variety of instructional situations and for making a range of instructional decisions. *Prerequisite: Admission to Teacher Education and the MAT Program.*

MSSE 630. Inquiry in the Classroom. 3 credits.

Skills, methods, insights, and understandings which will enable the beginning teacher to become an intelligent and critical consumer of educational inquiry and a productive participant in the process of classroom-based inquiry. *Prerequisites: Admission to Teacher Education and the MAT Program.*

MSSE 650. Internship Seminar. 2 credits.

A seminar designed to promote reflective decision making among students during their internship experience. During seminar sessions students will engage in case analysis and portfolio development. *Co-requisite to MSSE 580, Internship.*

MSSE 680. Applied Research in Middle and Secondary Education. 3 credits.

Provides students with the resources, skills, and knowledge required to conduct an individualized classroom-based inquiry project as a capstone activity in the MAT program. *Prerequisite: MSSE 630.*

## Reading Education

READ 501. Workshop in Reading. 3 credits.

Designed to provide students with workshop experiences related to current needs in reading. The topics considered will be determined by interest and demand. No more than six credit hours earned in workshops in education can be applied to a major program.

READ 511. Literature for Children. 3 credits.

Comprehensive survey of the materials available for children. Attention to curriculum-related materials. Study of the research on reading, viewing and listening interests.

READ 512. Adolescent Literature. 3 credits.

Comprehensive survey of the materials available for secondary school students. Attention to curriculum-related materials. Study of the research on reading, viewing and listening interests.

READ 515. Introduction to Reading Development. 3 credits.

This course is designed to provide an understanding of the reading process and how children develop an awareness and comprehension of print. Literacy acquisition, vocabulary development, reading strategies and writing will also be addressed.

READ 580. Foundations of Reading. 3 credits.

This course emphasizes the variety of traditions, thought and practices in reading that have emanated from a long history of research and practice.

READ 590. Reading Across the Curriculum. 3 credits.

This course explores reading in the K-12 curriculum and the interdisciplinary nature of reading. *Prerequisites: READ 580 or permission of instructor.*

READ 600. Inquiry in Reading. 3 credits.

The in-depth study of current research in reading and the application of this research to curriculum and instruction in reading.

READ 658 Principles, Practices and Applications of Reading Assessment. 3 credits.

The course emphasizes the principals, practices and applications of a variety of reading assessments for students with different learning abilities and needs. *Prerequisites: READ 580, READ 590, READ 600. Corequisite: READ 660.*

READ 660. Practicum in Principles, Practices and Applications of Reading Assessment. 3 credits.

This practicum is designed to give students practice in the application of a variety of reading assessments with pupils with individual differences. *Prerequisites: READ 580, READ 590, READ 600. Corequisite: READ 658.*

READ 665. Organization and Supervision of Reading Programs. 3 credits.

This course emphasizes the organization and supervision of elementary, middle and secondary reading programs. The roles of the reading specialist, special reading teacher, administrator and supervisor are explored in relationship to the reading program. *Prerequisites: READ 658 and 660 or permission of instructor.*

READ 680. Reading and Research. 3 credits.

Directed reading and research in areas of special student interest. Reading and research may be done only in the major field of study. The plan for the study must be submitted in prescribed form and approved prior to registration for the course. *Prerequisite: EDUC 630 and written permission of the adviser and coordinator.*

READ 698. Comprehensive Continuance. 1 credit.

Continued preparation in anticipation of the comprehensive examination. Course may be repeated as needed.

## School Administration

ADSU 640. The Fundamentals of Educational Administration. 3 credits.

Examines the fundamental principles and concepts of organizational theory, structure and climate. There is an emphasis on the administrative processes and professional ethics of leadership, motivation, decision making, communication, organizational change and strategic planning. The course offers opportunities to apply theory to professional practice through the use of case studies.

ADSU 641. School Law. 3 credits.

Acquaints teachers and prospective school administrators with the laws governing public education and the legal responsibilities and powers of state and local governing bodies and individuals. Emphasis is given to federal and Virginia statutes and case law affecting due process, liability, equal protection, and the rights of teachers and students.

ADSU 642. Leadership for School-Community Relations. 3 credits.

The influence of the social and political structures and conditions on school leadership, personnel, programs and activities is explored. Strategies for interacting and cooperating with parents, community leaders, businesses, and organizations for support in the effective attainment of school objectives and the educational goals of the community are emphasized.

ADSU 643. The Principalship. 3 credits.

Emphasis will be on instructional leadership and effective school management that promotes positive student achievement, a safe and secure environment, and the efficient use of resources. Curriculum planning, scheduling, school improvement planning, assessment of student progress, school change, and program evaluation will be key topics covered by this course.

ADSU 644. Supervision and Development of School Personnel. 3 credits.

Concepts and approaches for planning and implementing activities for effective human resource management are explored. Theories and practices related to recruitment, development and appraisal of personnel are covered. Evaluation of personnel for the purpose of meeting school objectives and for professional development receives emphasis.

ADSU 652. School Finance and Business Management. 3 credits. This course emphasizes the history and principles of public school financing and the roles of federal, state and local governments and agencies in financing public education. Taxation for school purposes, the economics of education, equity and disparity issues, budgetary concerns, strategic planning, and procedures for school-site management are included.

ADSU 658. Practicum in School Administration. 3 credits. The practicum provides administrative field experience in a school setting. Students spend a minimum of 75 hours during the semester working under the guidance of a practicing school administrator and university professor. Other course requirements include seminars and the completion of an administrative project. Course graded on an S/U basis. *Prerequisites: Completion of a minimum of 15 credits and permission of instructor.*

ADSU 668. Internship for Principals. 3 credits. Students spend a minimum of 90 days or one semester of full-time internship under the supervision of a practicing school administrator and a university professor. The student should experience the full range of duties, problems and issues encountered by an administrator, and receive developmental and evaluative feedback. Course graded on an S/U basis. *Prerequisite: Completion of 30 credits in the Educational Leadership Program or permission of adviser.*

## Secondary Education

SEED 580. Student Teaching. 6 credits. Students will experience the full range of conditions and tasks expected of a teacher at the secondary-school level during 12 weeks of student teaching. They will be expected to practice their skills in teaching and demonstrate their knowledge of educational research through the completion of a research study of an educational problem.

SEED 600. Secondary Education in America: Past, Present and Future. 3 credits. The changing face of the American secondary school will be studied and attention will be given to many of the philosophical, social, cultural, demographic and other factors impacting those changes. Emphasis will be placed on problems, current trends and future perspectives. *Prerequisite: EDUC 620.*

SEED 607. Secondary School Curriculum and Ccurriculum. 3 credits. The course provides information and practice concerning various approaches to planning, organizing, implementing and assessing secondary school curricula for accommodating and challenging all students. Leadership in curriculum development and participation of teachers in curriculum improvement are covered. *Prerequisite: An instructional methods course.*

SEED 615. Seminar on Teaching in Contemporary Schools. 3 credits. Students develop knowledge and skills needed in the areas of classroom management, special education, reading and multicultural education for effectively instructing secondary school students.

SEED 660. Instructional Development in the Secondary School. 3 credits. Effective teaching techniques and innovative forms of organization and instruction in secondary education will be studied. Emphasis will be on teaching strategies and behaviors and materials selection for serving secondary school students. *Prerequisite: An instructional methods course.*

SEED 680. Reading and Research. 1-3 credits. Opportunities for directed reading and research in secondary English, foreign language, mathematics, science and/or social studies. *Prerequisite: EDUC 630 or equivalent and written permission of the adviser and program coordinator.*

## Adult Education/Human Resource Development

*Dr. Diane Foucar-Szocki, Coordinator*  
For information, call 540-568-6794/6486

The Master of Science in Education degree with a major in adult education/human resource development (AHRD) is designed for persons entering or advancing in positions associated with learning in education, business, industry, government, and other public and private sector organizations. The program is targeted to college graduates pursuing a career in the AHRD field, experienced AHRD professionals who want to expand their skills and enhance their career potential, and working managers and professionals in leadership roles where skills in developing and leading people have become critical to their organization's success. A major strength of the program is that it allows individuals to tailor their programs to individual career needs and objectives.

The mission of the AHRD program is to prepare professionals to design, implement and evaluate learning programs within education, business, industry, government, military, health care and other professional contexts. In addition to delivering effective instruction, AHRD professionals are also prepared to design ways to improve the quality of work life, facilitate change, and develop programs to increase productivity and satisfaction for all employees. Our mission is to graduate individuals who are prepared and committed to leading appropriate teaching, learning and continuous human performance improvement efforts in settings where adults learn and work, including education, business, industry, government and other public and private sector organizations. Within our program we strive for our learners to achieve the following objectives for teaching, learning and human performance improvement:

1. To understand and apply systems theory, analytic systems, principles of adult development, learning theory, leadership theory and current trends.
2. To understand business, industry, educational and other organizational settings.
3. To identify, understand and build effective organizational relationships that support teaching, learning and continuous human performance improvement appropriate to the context.
4. To organize, manage and evaluate teaching, learning and continuous human performance improvement efforts.
5. To analyze, design, develop, implement and evaluate appropriate curriculum in appropriate modes (including distance, action, self-directed, transformative, informal learning, etc.) for individual, team, organizational, social learning and continuous human performance improvement.
6. To facilitate and lead team-based learning, planning, organizing and evaluating appropriate to the context.
7. To be aware of and apply appropriate technologies.

8. To recognize and respond responsibly to issues of diversity and ethics.

9. To demonstrate the ability to articulate and forecast the vision and role for teaching, learning and continuous human performance improvement appropriate to a/the context.

10. To interpret and conduct research.

### Admission Requirements

Admission requirements to the Master of Science in Education with a major in AHRD include submission of

- Official transcripts reflecting all post-secondary education with a cumulative grade point average of 2.75 or higher
  - An official record of scores on the general test of the Graduate Record Examination (scores must be less than five years old)
  - Two letters of recommendation from employers or educators who can attest to the applicant's potential for graduate-level course work to Program Coordinator, Adult Education/Human Resource Development, School of Education MSC 1908 James Madison University, Harrisonburg, VA 22807
  - Application for graduate admission along with the nonrefundable, nontransferable application fee of \$50 mailed to Dean's Office, Graduate School MSC 2602, James Madison University, Harrisonburg, VA 22807
- Learners majoring in adult education/human resource development must follow several fundamental guidelines:
- Consult major and concentration advisers for advice and approval regarding the program.
  - Plan to count no more than six credit hours of workshop credit in any degree program. To be accepted, workshop courses must be approved for credit in the program. The program will not accept workshop courses offered by departments outside the College of Education and Psychology for elective credit.
  - Adhere to the Graduate School policy that at least half of the courses in any major of concentration be at the 600 level.
  - Secure the required approval of major and concentration advisers for any course credits to be transferred into a JMU degree program.

### Degree Requirements

The major consists of a minimum of 36 credit hours of course work organized into five components: professional core, elective courses in adult education/human resource development, concentration area, research paper or thesis, and oral comprehensive examination.

### Core Courses

The core requirements consist of foundational courses that are the basis for the understanding of adult education/human resource development. These core courses encourage learners to investigate adult education/human resource development and to appreciate all facets of this dynamic field.

Minimum Requirements	Credit Hours
AHRD 520 Current Practices in Adult Education/Human Resource Development	3
AHRD 580 Learning in Adulthood	3
AHRD 600 Performance Analysis and Evaluation in Adult Education/ Human Resource Development	3
AHRD 610 Instructional Design in Adult Education/Human Resource Development	3
AHRD 620 Implementing Instructional Design in Adult Education/Human Resource Development	3
EDUC 630 Inquiry in Education	3
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### Concentration Courses

The purpose of the 9-12 hour concentration is to complement the learner's studies in Adult Education/Human Resource Development and to support his/her professional goals. Concentration areas for Adult Education/Human Resource Development include the following defined areas of study: human resource development, leadership and facilitation, educational design and technologies, workforce development, human resource management, and higher education. Details for each defined concentration are listed below. Learners can also define a concentration in another area of study such as, public administration, counseling psychology, secondary education, or any content area that is complementary with the learner's professional objectives. Concentrations should be decided in conjunction with the learner's adviser.

### Concentration in Human Resource Development

This concentration is designed to provide learners with a broad-based appreciation for Human Resource Development and Performance Improvement within an organizational or educational setting. Learners selecting this concentration will develop a general and introductory proficiency in HRD.

#### Minimum Requirements

- AHRD 501. Workshop in Adult Education/Human Resource Development
- AHRD 525. Seminar in Leadership
- AHRD 590. Educational Technologies Used in Adult Education/ Human Resource Development
- AHRD 635. Organization and Administration of Adult Education/ Human Resource Development
- PSYC 613. Advanced Cognitive Psychology
- AHRD 690. Special Studies in Adult Education/Human Resource Development

### Concentration in Leadership and Facilitation

This concentration is designed for learners who wish to combine leadership, facilitation and creativity with an approved Adult Education/Human Resource Development program.

#### Minimum Requirements

- MBA 600. Organizational Behavior
- MGT 633. Leadership and Human Relations
- AHRD 525. Seminar in Leadership
- ADSU 632. Leadership for School – Community Relations
- AHRD 690. Special Studies in Adult Education/Human Resource Development

## Concentration in Educational Design and Technologies

This concentration is designed to equip learners with the technical skills to assess and implement learning strategies using principles of instructional design and use of educational technologies in Adult Education/Human Resource Development settings.

### Minimum Requirements

AHRD 590. Educational Technologies Used in Adult Education/ Human Resource Development  
 AHRD 685. Using Advanced Educational Technologies for AHRD Applications  
 AHRD 689. Field Consultation and Materials Development Using Educational Technology Delivery Systems  
 AHRD 690. Special Studies in Adult Education/Human Resource Development

## Concentration in Workforce Development

This concentration is designed to provide learners with the conceptual skills necessary to facilitate learning in the workplace, particularly for non-supervisory and non-management employees.

### Minimum Requirements

AHRD 501. Workshop in Adult Education/Human Resource Development  
 PSYC 613. Advanced Cognitive Psychology  
 PSYC 669. Career Development  
 AHRD 690. Special Studies in Adult Education/Human Resource Development

## Concentration in Human Resource Management

This concentration is designed to acquaint learners with business and industry and practices related to the management of human resources.

### Minimum Requirements

MBA 600. Organizational Behavior  
 MBA 650. Managing Human Resources/Personnel Administration  
 MBA 651. Labor Relations  
 AHRD 690. Special Studies in Adult Education/Human Resource Development

## Concentration in Higher Education

For minimum requirements suggested in the higher education concentration, see the minor below.

## Oral Comprehensive Examination

During the final semester in which the learner is enrolled in this program, he/she will participate in an oral comprehensive examination to be conducted by the learner's advisory committee. This examination will cover course work and research paper or thesis. Any faculty member who has taught the learner may participate in this oral examination.

### Minimum Requirements

Minimum Requirements	Credit Hours
Professional Core:	18
AHRD 520. Current Practices in Adult Education /Human Resource Development	
AHRD 580. Learning in Adulthood	
AHRD 600. Performance Analysis and Evaluation in Adult Education/Human Resource Development	
AHRD 610. Instructional Design in Adult Education/Human Resource Development	
AHRD 620. Implementing Instructional Strategies in Adult Education/Human Resource Development	
EDUC 630. Inquiry in Education	
Choose one or two of the following electives:	3-6
AHRD 501. Workshop in Adult Education/Human Resource Development	
AHRD 550. Human Resource Work Experience	
AHRD 525. Seminar in Leadership	
AHRD 590. Educational Technologies Used in Adult Education/ Human Resource Development	
AHRD 635. Organization and Administration of Adult Education/ Human Resource Development Programs	
AHRD 690. Special Studies in Adult Education/Human Resource Development	
Concentration Courses (see offerings previously listed)	9 -12
Research Paper or Thesis (choose one of the following)	3-6
AHRD 680. Reading and Research	
AHRD 700. Thesis	

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## Minor in Higher Education

The minor in higher education is a nine-credit-hour program that is offered for learners majoring in an academic area and planning to enter college teaching at the undergraduate level. Learners pursuing the Master of Science in Education Degree (in Adult Education/Human Resource Development or Health Sciences) and learners pursuing Master of Arts degrees may enroll in the minor in higher education. The minor is designed to prepare learners who have experience and/or in-depth preparation in an academic area to provide instruction for undergraduate learners and adapt to other aspects of the undergraduate teaching environment in institutions of higher education.

### Minimum Requirements

Minimum Requirements	Credit Hours
AHRD 670. American Higher Education	3
AHRD 671. Teaching & Learning Processes in Higher Education	3
Elective (choose one)	3
EDUC 630. Inquiry in Education	
ADSU 632. Leadership for School-Community Relations	
AHRD 635. Organization and Administration of Adult Education/Human Resource Development	
AHRD 673. The Community College	
PSYC 669. Career Development	
PSYC 645. Student Personnel Services	
PSYC 646. The American College Student	

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## Course Offerings

### Adult Education/Human Resource Development

AHRD 501. Workshop in Adult Education/Human Resource Development. 1-3 credits.

Designed to provide workshop experience in a variety of areas involving adult education/human resource development. Workshop content will be determined by demand, interest, and input from local, regional and state clientele. May be repeated up to six hours.

AHRD 520. Current Practices in Adult Education/Human Resource Development. 3 credits.

Historical beginnings of adult education and human resource development programs will be examined in order to understand current practices. Current issues and trends, research, legislation and publications will be incorporated into the course.

AHRD 525. Seminar in Leadership. 3 credits.

This course examines the multi-faceted concept of leadership. Focused on leadership theories and concepts, and how these contribute to organizational leadership development and improved performance. Leadership analysis will be conducted within the context of the traditional as well as emergent paradigms. Emphasis will be placed on knowledge, attitudes and skills which enable a leader to work effectively with diverse work groups, and to draw from staff and community resources.

AHRD 550. Human Resource Work Experience. 1 - 3 credits.

Designed to provide learners a workplace learning experience that will reinforce their academic learning to make it more meaningful, develop specific on-the-job skills, make the transfer of skills and concepts to job applications more efficient, and increase the likelihood of successful transition to the position of human resource development professional.

AHRD 580. Learning in Adulthood. 3 credits.

This course provides a comprehensive overview of learning in adulthood. Emphasis is placed on learning contexts, what and why adults learn, the nature of learning, learning theories, adult development and the development of adult learning theory. Ways and means to enhance learning opportunities in the lives of adults at work, school, worship, in leisure, and for better health are explored.

AHRD 590. Educational Technologies Used in Adult Education/Human Resource Development Settings. 3 credits.

This course is designed to develop competence in instructional technologies in adult education and human resource settings. Emphasis is placed on hardware and software available to create modules for designing and implementing training. An introduction to use of digital cameras, digital camcorders, scanners, audio, videoconferencing software and hardware, and presentation software is included.

AHRD 600. Performance Analysis and Evaluation in Adult Education/Human Resource Development. 3 credits.

Focuses on knowledge and skills basic to needs analysis such as organization, person and task analysis. Data collection methods such as questionnaires, interviews and observation scales are covered, as well as data analysis and selection of appropriate instrumentation. Models, methods and approaches to evaluation are included.

AHRD 610. Instructional Design in Adult Education/Human Resource Development. 3 credits

Course focuses on teaching strategies, techniques, and methods suitable for adult learners that are supported by research and tested in practice. Course examines adult education and training and development programs to determine appropriate learning strategies for differing learners.

AHRD 620. Implementing Instructional Strategies in Adult Education/Human Resource Development. 3 credits.

This course will focus on models, techniques and practices of constructing curricula and developing programs for learners as individuals, groups and organizations. Emphasis is placed on Instructional Design processes, approaches and practices, implementation procedures and evaluation approaches to various learning settings and clients. *Prerequisite: AHRD 610 or equivalent.*

AHRD 635. Organization and Administration of Adult Education/Human Resource Development Programs. 3 credits.

This course examines current and proposed legislation, program development and organizational structures found in adult education and human resource development. Emphasis is placed on changing existing structures to lifelong learner-driven structures.

AHRD 670. American Higher Education. 3 credits.

The objective and organization of prevalent types of institutions are studied. Current issues and problems in American higher education are explored.

AHRD 671. Teaching and Learning Processes in Higher Education. 3 credits.

Instructional practices and themes are studied in relationship to programs in higher education.

AHRD 673. The Community College. 3 credits.

The history, functions and personnel of the comprehensive community college in the American system of higher education are studied. Current issues facing the community college are explored.

AHRD 680. Reading and Research. 3 - 6 credits.

Designed to provide the opportunity for supervised reading and research in a special interest area of adult education/human resource development. *Prerequisite: Approval from major adviser and completion of a basic research course.*

AHRD 685. Using Advanced Educational Technologies for Adult Education/Human Resource Development Applications. 3 credits.

This course builds upon the competencies developed in AHRD 590 and includes development of web-based curriculum materials and use of other advanced technologies, such as interactive video. Photoediting, videoediting, and web development software to develop curriculum materials and presentations. *Prerequisite AHRD 590.*

AHRD 689. Field Consultation and Materials Development Using Educational Technology Delivery Systems. 3 credits.

This course will permit learners, either individually or in teams, to consult with business and industry personnel to develop specialized training materials using educational technology delivery. Specific project proposals for curriculum materials will be developed in consultation with the course instructor and the business or industry contact person. *Prerequisites: AHRD 590 and AHRD 685.*

AHRD 690. Special Studies in Adult Education/Human Resource Development. 3 credits.

Designed to provide learners the opportunity to explore topics of special interest that are more limited than the traditional three-credit course. *Prerequisite: Approval of major adviser.*

AHRD 698. Comprehensive Continuance. 1 credit.

Continued preparation in anticipation of the comprehensive examination. Course may be repeated as needed.

AHRD 699. Thesis Continuance. 2 credits.

Continued study, research and writing in the areas of thesis concentration. Course may be repeated as needed.

AHRD 700. Thesis. 6 credits.

*Prerequisite: EDUC 630 and approval of graduate adviser.*

## Special Education

*Dr. Reid Linn, Coordinator*

For information, call (540) 568-6193

The program in special education currently offers a *Master of Education* degree in special education, with specific areas of concentration in teaching students with emotional disturbance, learning disabilities, mental retardation or early childhood special education. The program also offers a non-teaching Master of Education degree.

A new 5<sup>th</sup> year Master of Education degree in special education will begin with the 2000-2001 academic year. An undergraduate, pre-professional program in special education will compliment a professionally oriented master's degree program designed to prepare special education teachers. The undergraduate pre-professional program will provide the requisite course offerings and experiences that will form the foundation for admission to the 5<sup>th</sup> year Master of Education (M.Ed.) degree program. The expected date of implementation for the graduate component of the new 5<sup>th</sup> year program is the 2003-2004 academic year. Students working toward the completion of the *Master of Education* degree in special education must obtain at least a letter grade of "B" in all special education required or elective courses. Students who receive a letter grade lower than "B" must repeat the course. Should a student receive a letter grade of "C" in a required or elective course external to the special education program, that "C" may be offset by a letter grade of "A" as stipulated in the Graduate School grading policy; however, the three "C" dismissal policy still applies.

Each teaching endorsement in special education requires the completion of a block of common core courses. For some students, these requirements will have been met at the undergraduate level as part of an initial licensure program in special education. Students entering the graduate program with deficiencies will be required to remediate such deficiencies prior to the granting of unconditional status and the Master of Education.

The common core typically includes the following areas:

- Psychoeducational assessment
- Social/cultural and vocational aspects of disabilities
- Modifications of curriculum and instruction for students with disabilities
- Language development/disorders
- Current trends and legal issues
- Teaching methods (elementary reading and math)
- Behavior management
- Technology trends
- Consultation and Collaboration

Students wishing to work with the disabled in areas other than teaching may wish to complete the non-teaching sequence. Graduates of this program often find employment in vocational programs, residential programs or other alternative service settings.

Exceptions to all program requirements must be approved in writing by the program coordinator and by the dean of the Graduate School. When exceptions relate to licensure, the approval of the dean of the College of Education and Psychology is also required.

### Emotional Disturbance Concentration

The purpose of this concentration is to prepare classroom teachers to work with the emotionally disturbed and behavior disordered. Students are prepared to assume teaching responsibilities in a variety of settings including public and private schools, mental hospitals and institutions, and facilities for adjudicated juveniles. In addition, graduate students are taught to deal with behavior problems presented by these students. This concentration is based on the diagnostic-prescriptive teaching model.

The minimum requirement for the graduate concentration in emotional disturbance is the satisfactory completion of 33 credit hours of prescribed course work. A student admitted to the program with deficiencies may be required to take appropriate course work beyond the minimum program requirement. In some instances it is possible to meet endorsement requirements prior to completion of the master's program.

Students who do not hold Virginia licensure will need to complete additional requirements to obtain the degree. A student not already endorsed in special education in Virginia may be required to take the general special education core courses.

<b>Minimum Requirements •</b>	<b>Credit Hours</b>
SPED 512. Behavior Management in the Classroom	3
SPED 612. Psychoeducational Assessment of Learning and Behavior Problems	3
SPED 613. Teaching Individuals with Learning and Behavior Problems	3
SPED 640. Advanced Study of Individuals with Emotional Disturbance	3
SPED 670. Student Teaching in Special Education I	3
SPED 675. Student Teaching in Special Education II	6
Electives (by advisement only)	12
CSD 540. Language Disorders	
ECED 541. Working with Parents of Young Children	
EDUC 540. Educational Technology	
MIED 530. Teaching Mathematics in the Elementary and Middle Grades	
PSYC 515. Basic Counseling Skills	
PSYC 620. Advanced Adolescent Psychology	
PSYC 622. Advanced Abnormal Psychology	
PSYC 641. Counseling in Elementary and Middle Schools	
READ 590. Reading Across the Curriculum	
SPED 501. Workshops in Special Education	
SPED 600. Advanced Study of Exceptional Individuals	
SPED 607. Curriculum and Methods in Special Education	

- SPED 611. Survey of Learning Disabilities
- SPED 614. Issues and Trends in Special Education
- SPED 615. Transition Services for Students with Mild Disabilities
- SPED 621. Introduction to Early Childhood Special Education

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• Other courses as determined by the individual needs of the student and upon approval of the adviser.

### Early Childhood Special Education Concentration

The purpose of the concentration in early childhood special education is to prepare either early intervention specialists (ages 0-2) or early childhood special educators (ages 2-5). Graduates of the program are prepared to assume positions as either center-based or home-based early childhood special educators. Graduates are also prepared to seek employment as early intervention specialists for home-based infant and toddler programs. The program is formulated on the principles of developmentally appropriate programming as a result of diagnostic-prescriptive activities conducted in collaboration with parents and/or family.

The minimum requirement for the graduate concentration in early childhood special education is the satisfactory completion of 36 credit hours of prescribed course work. A student admitted to the program with deficiencies may be required to take appropriate course work beyond the minimum program requirement. Students must complete the required course sequence, as well as elective offerings, as designated by the adviser. Students who do not hold a Virginia teaching license may need to complete additional requirements to obtain the degree.

<b>Minimum Requirements •</b>	<b>Credit Hours</b>
SPED 621. Introduction to Early Childhood Special Education	3
SPED 622. Assessment in Early Childhood Special Education	3
SPED 623. Programming in Early Childhood Special Education	3
SPED 624. Service Delivery Systems in Special Education	3
SPED 625. Medical and Technological Aspects of Early Childhood Special Education	3
SPED 626. Practicum: Infants and Toddlers with Disabilities	3
SPED 627. Practicum: Early Childhood Special Education	3
SPED 628. Internship: Early Childhood Special Education	3
Electives (by advisement only)	9
CSD 540. Language Disorders	
ECED 509. Curriculum for Early Childhood Education	
ECED 510. The Creative Arts in Early Childhood Education	
ECED 541. Working with Parents of Young Children	
ECED 612. Trends and Issues in Early Childhood Education	
EDUC 540. Educational Technology	
PSYC 610. Advanced Learning Theories	
PSYC 614. Advanced Developmental Psychology	
PSYC 622. Advanced Abnormal Psychology	
SPED 512. Behavior Management in the Classroom	

- SPED 600. Advanced Study of Exceptional Individuals
- SPED 607. Curriculum and Methods in Special Education
- SPED 610. Topics in Special Education
- SPED 611. Survey of Learning Disabilities
- SPED 612. Psychoeducational Assessment of Learning and Behavior Problems
- SPED 630. Survey of Mental Retardation
- SPED 640. Advanced Study of Individuals with Emotional Disturbance

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• Other relevant courses may be substituted for those above, based on the needs of the student and approval of the adviser.

### Learning Disabilities Concentration

The purpose of the concentration in learning disabilities is to prepare learning disability specialists. Such specialists are trained to serve as resource teachers, teacher consultants and special class teachers who work with children and youth with learning disabilities. Program graduates will be eligible for professional licensure with an endorsement in the area of learning disabilities as specified by the Commonwealth of Virginia. In some instances it is possible to meet endorsement requirements prior to the completion of the master's program. This program is based on the diagnostic-prescriptive teaching model.

The minimum requirement for the graduate concentration in learning disabilities is the satisfactory completion of 33 credit hours of prescribed course work. A student admitted to the program with deficiencies will be required to take appropriate course work beyond the minimum program requirement.

Students who do not hold an initial Virginia license will need to complete additional requirements to obtain the degree. Students who are not already endorsed in special education in Virginia may be required to take the special education common core courses.

<b>Minimum Requirements •</b>	<b>Credit Hours</b>
SPED 611. Survey of Learning Disabilities	3
SPED 612. Psychoeducational Assessment of Learning and Behavior Problems	3
SPED 613. Teaching Individuals with Learning and Behavior Problems	3
SPED 614. Issues and Trends in Special Education	3
SPED 670. Student Teaching in Special Education I	3
SPED 675. Student Teaching in Special Education II	6
Electives (by advisement only)	12
CSD 540. Language Disorders	
EDUC 540. Educational Technology	
MIED 530. Teaching Mathematics in the Elementary School and Middle Grades	
PSYC 515. Basic Counseling Skills	
PSYC 614. Advanced Developmental Psychology	
PSYC 622. Advanced Abnormal Psychology	
READ 590. Reading Across the Curriculum	
SPED 512. Behavior Management in the Classroom	
SPED 600. Advanced Study of Exceptional Individuals	
SPED 607. Curriculum and Methods in Special Education	

- SPED 615. Transition Services for Students with Mild Disabilities  
 SPED 621. Introduction to Early Childhood Special Education  
 SPED 630. Survey of Mental Retardation  
 SPED 640. Advanced Study of Individuals with Emotional Disturbance

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• Other courses as determined by the individual needs of the student and upon approval of the adviser.

## Mental Retardation Concentration

The purpose of the concentration or teaching endorsement program in mental retardation is to prepare classroom teachers to work with children and youth diagnosed with mental retardation. Students are prepared to assume teaching responsibilities in a variety of settings including public and private schools as well as residential settings. The training program is built on the diagnostic-prescriptive teaching model.

The minimum requirement for the satisfactory completion of the concentration in mental retardation is 33 credit hours of prescribed course work. A student admitted to the program with deficiencies will be required to complete appropriate course work beyond the minimum program requirement. For example, students who do not hold Virginia licensure will need to complete additional requirements to obtain the degree. A student not already endorsed in special education in Virginia may be required to take the general special education core courses. In some cases, it may be possible to meet endorsement requirements prior to the completion of the master's degree program.

<b>Minimum Requirements •</b>	<b>Credit Hours</b>
SPED 512. Behavior Management in the Classroom	3
SPED 612. Psychoeducational Assessment of Learning and Behavior Problems	3
SPED 613. Teaching Individuals with Learning and Behavior Problems	3
SPED 630. Survey of Mental Retardation	3
SPED 670. Student Teaching in Special Education I	3
SPED 675. Student Teaching in Special Education II	6
Electives (by advisement only)	12
CSD 540. Language Disorders	
EDUC 540. Educational Technology	
MIED 530. Teaching Mathematics in the Elementary and Middle Grades	
PSYC 515. Basic Counseling Skills	
PSYC 622. Advanced Abnormal Psychology	
READ 590. Reading Across the Curriculum	
SPED 600. Advanced Study of Exceptional Individuals	
SPED 607. Curriculum and Methods in Special Education	
SPED 611. Characteristics of Individuals with Learning Disabilities	
SPED 615. Transition Services for Students with Mild Disabilities	
SPED 621. Introduction to Early Childhood Special Education	
SPED 640. Advanced Study of Individuals with Emotional Disturbance	

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• Other courses as determined by the individual needs of the student and upon approval of the adviser.

## Mild Disabilities/Transition Concentration

The purpose of the graduate concentration in mild disabilities/transition is to prepare teachers for state licensure and/or endorsement in three areas of disability: learning disabilities, emotional disturbance and mental retardation. This triple endorsement/concentration is built on the diagnostic-prescriptive model. The concentration also provides emphasis on professional preparation for promoting a smooth transition from school to the world of work, career and vocational education, and/or post-secondary study for students with mild disabilities. Graduates are prepared to teach students with any of these three types of disabilities in resource or self-contained classes or as consulting/collaborative teachers.

The minimum requirement for the graduate concentration in the triple endorsement areas of learning disabilities, emotional disturbance and mental retardation is the satisfactory completion of 39 credit hours of prescribed course work. A student admitted to the program with deficiencies will be required to take the general special education courses. In some cases, it may be possible to meet endorsement requirements prior to completion of the master's degree program.

<b>Minimum Requirements •</b>	<b>Credit Hours</b>
SPED 615. Transition Services for Students with Mild Disabilities	3
SPED 512. Behavior Management in the Classroom	3
SPED 611. Survey of Learning Disabilities	3
SPED 612. Psychoeducational Assessment of Learning and Behavior Problems	3
SPED 613. Teaching Individuals with Learning and Behavior Problems	3
SPED 614. Issues and Trends in Special Education	3
SPED 630. Survey of Mental Retardation	3
SPED 640. Advanced Study of Individuals with Emotional Disturbance	3
SPED 670. Student Teaching in Special Education I	3
SPED 670. Student Teaching in Special Education I	3
SPED 675. Student Teaching in Special Education II	6
Elective (by advisement only)	3
CSD 540. Language Disorders	
EDUC 540. Educational Technology	
MIED 530. Teaching Mathematics in the Elementary and Middle Grades	
PSYC 515. Basic Counseling Skills	
PSYC 614. Advanced Developmental Psychology	
PSYC 622. Advanced Abnormal Psychology	
READ 590. Reading Across the Curriculum	
SPED 600. Advanced Study of Exceptional Individuals	
SPED 607. Curriculum and Methods in Special Education	
SPED 621. Introduction to Early Childhood Special Education	

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• Other courses as determined by the individual needs of the student and upon approval of the adviser. Disability areas designated for student teaching sequence above will be modified based on the primary area of interest of the student.

## Special Education Non-Teaching Program

The graduate special education nonteaching program is a 30-hour program with a minimum of 18 hours in special education and related graduate courses. The remaining 12 hours include courses that meet specific individual needs and career objectives. The program is not designed to meet Virginia requirements for teacher licensure or endorsement. This program is primarily for those individuals currently working in an area that requires knowledge and some related skills for working with individuals with disabilities, but not necessarily in a pedagogical role. Included in the 18-hour concentration is an internship that may occur as a formal placement by the university or as a result of supervised employment.

Students may select course work from existing special education courses (relating to emotional disturbance, learning disabilities, mental retardation and/or early childhood special education) and from various interdepartmental graduate courses. Each student will be required, using the direct guidance of his or her adviser, to design a program of study that will meet each individual's needs and career objectives.

<b>Minimum Requirements •</b>	<b>Credit Hours</b>
Choose from the following:	18
SPED 512. Behavior Management in the Classroom	3
SPED 611. Survey of Learning Disabilities	3
SPED 630. Survey of Mental Retardation	3
SPED 640. Advanced Study of Individuals with Emotional Disturbance	3
SPED 653. Internship in Special Education: Non-teaching	3
Electives (by advisement only) •	18
PSYC 515. Basic Counseling Skills	
SPED 501. Workshop in Special Education	
SPED 600. Advanced Study of Exceptional Individuals	
SPED 615. Transition Services for Students With Mild Disabilities	
SPED 621. Introduction to Early Childhood Special Education	
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• Electives may also be chosen from the areas of communication sciences and disorders, human resource development, psychology, secondary education, speech pathology, early childhood and middle education. Acceptable courses are determined by the individual needs of the student and upon approval of the adviser.

## 5<sup>th</sup> Year K-12 Special Education Concentration

### (Projected for 2003)

Completion of the K-12 concentration is required for K-12 licensure in special education with endorsements in emotional disturbance, learning disabilities and/or mental retardation. Students must select two endorsement areas in completing the concentration, however, students who wish to obtain all three endorsements simply need to complete a third student teaching experience in that disability area. This concentration is offered in conjunction with an undergraduate pre-professional program in special education. Students completing the professional licensure

program must meet a set of content and endorsement-specific criteria that have been established by the Commonwealth of Virginia. In order to meet these requirements, students at the undergraduate level will have completed the Interdisciplinary Liberal Studies (IDLS) major concurrently with the pre-professional program.

It is important for students to understand that they must meet the requirements for a baccalaureate degree and successfully complete all undergraduate pre-professional courses and experiences prior to being fully admitted to the M.Ed. program. Additionally, students must submit satisfactory scores on PRAXIS I and the GRE.

<b>Minimum Requirements •</b>	<b>Credit Hours</b>
MIED 530. Teaching Mathematics in the Elementary and Middle Grades	3
EDUC 630. Inquiry in Education	3
SPED 500. Individualized Education Programs and Curriculum-Based Assessment	3
SPED 510. Systematic Behavioral Interventions	3
SPED 520. Differentiation of Instruction and Collaboration in Special Education	3
SPED 600. Instructional Methods in Special Education	3
SPED 610. Practicum in Special Education Instructional Methods	2
SPED 615. Transition Services for Students with Disabilities 3	
SPED 650. Student Teaching in Special Education	4
SPED 650. Student Teaching in Special Education	4
SPED 670. Professional Practice Seminar	2
SPED 675. Applied Research in Special Education	3
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Completion of an additional student teaching (SPED 650) is required for endorsements in emotional disturbance, learning disabilities and mental retardation; a total of 40 credit hours.

## Course Offerings

### Special Education

**Note.** A renumbering of the graduate courses in special education has taken place regarding the courses to be offered in the new 5<sup>th</sup> year program with a projected start-up date of 2003. Courses designated as (2003) reflect new and renumbered courses.

SPED 500. IEP and Curriculum-Based Assessment. 3 credits. (2003)  
A detailed study of purposes and procedures involved in the development of Individualized Education Programs (IEP) for students with disabilities. In addition, this course emphasizes the selection or design of curriculum based assessment to plan and evaluate instruction in academics, social behaviors, and life skills. *Co-requisites: SPED 420, 430, 510*

SPED 501. Workshop in Special Education. 3 credits.

Designed to provide an intensive study of a particular topic in Special Education. *Prerequisite: SPED 200 or permission of instructor.*

SPED 510. Systematic Behavioral Interventions. 3 credits. (2003)  
An application of various systematic behavioral interventions to the management of behavior and learning of individuals with disabilities. Approaches to teaching social skills are also addressed. *Co-requisites: SPED 420, 430, 500.*

SPED 512. Behavior Management in the Classroom. 3 credits.

An application of behavior modification techniques to the control of discipline problems in the classroom. The use of these principles as an aid in learning is also stressed.

SPED 520. Differentiation of Instruction and Collaboration In Special Education. 3 credits. (2003)

Understanding students with disabilities and making accommodations in the general education classroom is paramount for student success. This course will address collaboration as related to teacher roles, the interface between general and special education, and creating instructional opportunities that are differentiated for diverse learners. *Co-requisites: SPED 600, 610.*

SPED 600. Advanced Study of Exceptional Individuals. 3 credits.

An in-depth study of the exceptional individual. The focus of the course is on the medical, social, psychological and cultural factors which are relevant to an understanding of definitions of exceptionality, incidence, characteristics and educational and therapeutic issues and problems.

SPED 600. Instructional Methods in Special Education. 3 credits. (2003)

A detailed study of specialized methods for teaching academic skills to the disabled. The course emphasizes special education instructional approaches, such as task analysis, direct instruction, diagnostic/prescriptive teaching, and strategy training. Focus is on specific remedial methods for reading, math, and writing. *Co-requisites: SPED 520 & SPED 610. Co-requisites: SPED 510, 610.*

SPED 607. Curriculum and Methods in Special Education. 3 credits.

A study of modifications needed in the school curriculum to fit the unique needs of the disabled learner. Procedures involved in individualized educational plans, and methods and materials for academic and school-related problems of the disabled are examined. *Prerequisite: SPED 600 and permission of instructor.*

SPED 610. Practicum in Special Education Methods. 2 credits. (2003)

This course provides field experience opportunities to practice the skills in using general education instructional methods developed in SPED 520 and the special education instructional methods developed in SPED 600. *Co-requisites: SPED 520 & SPED 600*

SPED 611. Survey of Learning Disabilities. 3 credits.

A detailed study of the nature and needs of individuals with specific learning disabilities. The focus of the course is on terminology, etiology, characteristics, diagnosis and special problems.

SPED 612. Psychoeducational Assessment of Learning and Behavior Problems. 3 credits.

A detailed study of psychoeducational assessment procedures and instruments used in determining eligibility, and planning and evaluating instruction for students with mental retardation, specific learning disabilities and emotional disturbance. The course emphasizes administration of formal and informal instruments, interpretation of results, and formulation of individual educational plans based on assessment findings. *Prerequisite: SPED 611 or permission of instructor.*

SPED 613. Teaching Individuals with Learning and Behavior Problems. 3 credits.

A detailed study of curriculum and methods for teaching individuals with learning and behavior problems. The course emphasizes a task analysis approach to developing academic, personal/social and functional life skills. *Prerequisites: SPED 611, SPED 630, SPED 640 or permission of instructor.*

SPED 614. Issues and Trends in Special Education. 3 credits.

A problem-solving and leadership course in which the focus is on meeting the needs of students with learning disabilities, mental retardation and emotional disturbance. Emphasis is placed on consultation and collaboration, transition and career education, research, technology trends, and the role of the special education teacher in providing in-service training in the schools. *Prerequisite: SPED 611, 630, 640 or permission of instructor.*

SPED 615. Transition Services for Students with Mild Disabilities. 3 credits.

A detailed study of elementary, secondary and post-secondary transition services needed for students with mild disabilities to achieve successful adult outcomes.

SPED 621. Introduction to Early Childhood Special Education. 3 credits.

This course is designed to provide the student with an introduction to programming for children with disabilities, ages 0 to 5. Particular attention is given to federal legislation, state procedures and practice, and the status of children served in early childhood special education and early intervention programs. *Prerequisite: Permission of instructor.*

SPED 622. Assessment in Early Childhood Special Education. (Cross-listed as PSYC 822.) 3 credits.

This course provides a student with exposure to screening, assessment and diagnostic procedures used in the identification of children with disabilities, ages 0 to 5. A case study approach to diagnosis is emphasized. Family assessment is also an integral part of the course. *Prerequisites: Permission of instructor and SPED 621.*

SPED 623. Programming in Early Childhood Special Education. 3 credits.

This course is designed to acquaint the students with curriculum, methods and materials related to establishing and maintaining programs for children with disabilities, ages 0 to 5. Attention is directed to designing developmental environments in a variety of settings. *Prerequisites: Permission of instructor and SPED 622.*

SPED 624. Service Delivery Systems in Special Education. 3 credits.

This course offers the student detailed experience in the numerous ways in which educational services are made available to children with disabilities, ages 0 to 5. Particular attention is addressed to working cooperatively with parents in the development of the IEP and IFSP. *Prerequisite: Permission of instructor.*

SPED 625. Medical and Technological Aspects of Early Childhood Special Education. 3 credits.

This course is designed to give the early childhood special educator exposure to working with children with medical disabilities, ages 0 to 5, who may have significant medical complications. Attention is addressed to the role and function of early childhood special educators as team members. The role of technology will receive extensive attention as will issues of etiology and remediation. *Prerequisite: Permission of instructor.*

SPED 626. Practicum: Infants and Toddlers with Disabilities. 3 credits.

This is the introductory field experience with infants and toddlers with disabilities. Settings include medical centers, rehabilitation facilities and community-based programs. Students are expected to demonstrate competencies which have been developed in early childhood special education courses. *Prerequisites: Permission of instructor and SPED 623.*

SPED 627. Practicum: Early Childhood Special Education. 3 credits.

This is the introductory field experience with children with disabilities, ages 2 to 5. Settings include medical centers, rehabilitation facilities and community-based programs. Students are expected to demonstrate competencies which have been developed in early childhood special education courses. *Prerequisites: Permission of instructor and SPED 623.*

SPED 628. Internship: Early Childhood Special Education. 6 credits.

This is a supervised experience in an early childhood special education setting (infants and toddlers, ages 2 to 5 or early childhood special education class) in which the student has the opportunity to implement a comprehensive set of services for at least five children with disabilities. Settings may include a medical center, a rehabilitation facility, an outreach program or public schools. *Prerequisites: Permission of instructor and SPED 626 and 627.*

SPED 630. Survey of Mental Retardation. 3 credits.

A detailed study of the characteristics, diagnosis, treatment and education of individuals with mental retardation. Least restrictive settings, resources and instructional techniques are analyzed to facilitate integration for individuals with mental retardation. *Prerequisites: SPED 600 or permission of instructor.*

SPED 640. Advanced Study of Individuals with Emotional Disturbance. 3 credits.

An in-depth study of the following topics: (a) characteristics of children with behavior and/or emotional problems; (b) theories on the development of problem behaviors; (c) nonclassroom, classroom and ancillary therapies; (d) screening and assessment procedures; and (e) community resources.

SPED 650. Student Teaching in Special Education. 4 credits. (2003)

Advanced, supervised teaching experiences in the area of learning and behavior disorders enabling the student to develop and apply the educationally prescriptive and management competencies acquired in previous course work and relevant field experiences.

SPED 653. Internship in Special Education: Nonteaching. 3-6 credits.

A supervised nonteaching experience in a setting related to populations with disabilities in order to provide the student the opportunity to demonstrate competencies developed in previous course work. *Prerequisite: Permission of instructor.*

SPED 670. Student Teaching in Special Education I. 3 credits.

Introductory teaching experiences in the area of learning or behavior disorders. Students are expected to perform and generalize competencies developed in previous special education course work. *Prerequisite: Permission of instructor.*

SPED 670. Professional Practice Seminar. 2 credits. (2003)

A seminar designed to accompany the student teaching experience. Student teachers will have the opportunity to reflect on their skill, problem-solve school and classroom experiences, and increase awareness of the need to continue career-long learning. *Co-requisite: SPED 650.*

SPED 675. Student Teaching in Special Education II. 6 credits.

Advanced, supervised teaching experiences in the area of learning or behavior disorders enabling the student to develop and apply the educationally prescriptive and management competencies acquired in previous course work and relevant field experiences. *Prerequisite: Permission of instructor.*

SPED 675. Applied Research in Special Education. 3 credits. (2003)

Provides students with the resources, skills, and knowledge required to conduct an individualized classroom-based inquiry project as a capstone activity in the M.Ed. program. *Prerequisites: EDUC 630.*

SPED 680. Reading and Research. 1-6 credits.

Provides the opportunity for directed reading and research in a student's area of concentration. This activity must be done in the major field of study. *Prerequisite: Permission of adviser and program coordinator. May be repeated for credit.*

SPED 698. Comprehensive Continuance. 1 credit.

Continued preparation in anticipation of the comprehensive examination. Course may be repeated as needed.

<sup>1</sup> Co-requisite of EDUC 310 and READ 432

<sup>2</sup> Offered during fall semester only

<sup>3</sup> Co-requisite of MSSE 470 and SPED 460

# English

Dr. Karyn Z. Sproles, Department Head

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<http://www.jmu.edu/english>

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## Professors

J. Brice-Finch, J. Cash, R. Cohen, M. Facknitz,

J. Frederick, J. Gabbin, R. Geary, R. Nelson

D. Jeffrey, C. Nickels, Sproles

## Associate Professors

S. Facknitz, A. Federico, C. Gilliatt, B. Johnson, L. Kutchins,

C. McDonald

## Assistant Professors

D. Bankert, M. Favila, S. Bost, S. Cote, R. Osotsi

The Department of English offers both the *Master of Arts* degree in English and the *Master of Arts* in Teaching degree.

Students must submit scores for the Graduate Record Examination General Test and the Subject Test, as well as two letters of recommendation as part of their applications to the Graduate School. A student, with approval, may take the Subject Test the first time it is given after enrollment.

The minimum requirement for the *Master of Arts* degree is 33 hours of graduate credit in English. All students, regardless of program, must take ENG 599, Bibliography and Methods of Research, in their first semester. Before beginning a teaching assistantship students must take ENG 501, Professional Seminar in College Composition. Completion of the third year of a college foreign language course or passing a reading examination in a foreign language is also required for all students of the *Master of Arts* degree. Toward the end of their course work, students will take comprehensive examinations based on a required readings list.

The department also offers a concentration in creative writing. Students choosing this option will take 15 hours in literature and language courses, 12 hours in creative writing, and will write a thesis. The 12-hour concentration normally requires either ENG 581 or 582 as a prerequisite for subsequent creative writing courses and ENG 700 as a creative writing thesis.

The *Master of Arts in Teaching* degree is designed to lead to initial licensure to teach in secondary schools. The minimum requirement for the M.A.T. degree in English is 27 hours of professional education course work and 12 hours of English graduate courses.

The minimum requirement for a *Master of Education* degree with a minor in English is 12 hours of English.

All students must plan a program of study with the coordinator of graduate studies in English before registering for graduate courses in English.

In the following list, those courses designated as limited to a specific concentration are not available to students outside that concentration (unless specifically noted otherwise).

## Course Offerings

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### English

ENG 501. Professional Seminar in College Composition. 3 credits. Practical examination of the content and methodology of freshman English (GWRT 101, 102) in the department, for the training of beginning teaching assistants and the exploration of expectations of ability among entering freshmen. (Required for all beginning teaching assistants; may be taken by Ph.D.-bound traditional students; open informally on a noncredit basis for new part-time faculty in the department.)

ENG 503. Old English. 3 credits.

Old English language, with readings in poetry and prose.

ENG 505. Middle English. 3 credits.

Middle English language and representative literary works.

ENG 508. History of Literary Criticism. 3 credits.

Survey of the nature, function and development of literary criticism from Aristotle to Eliot.

ENG 509. Contemporary Critical Practices. 3 credits.

Major debates in current critical discourse, covering such topics as formalism, structuralism, deconstruction, feminism, hermeneutics, reader response criticism, Marxism and new historicism.

ENG 510. Special Authors Seminar. 3 credits.

One major author or a selected group of authors. (May be repeated for credit when course content changes.)

ENG 512. Special Topics Seminar. 3 credits.

One literary school, movement, genre, or other literary or linguistic topic. (May be repeated for credit when course content changes.)

ENG 581. Poetics. 3 credits.

Poetic forms for writers, with emphasis on theory and current practice. (May be included in the concentration in creative writing; normally a prerequisite for other poetry courses in the concentration for creative writing.)

ENG 582. Narrative Form. 3 credits.

Narrative theory and current practices for writers. (May be included in the concentration in creative writing; normally a prerequisite for other fiction courses in the concentration in creative writing.)

ENG 583. Poetry Workshop. 3 credits.

Poetry writing for those with demonstrated skill, with emphasis on perfecting voice and poetic form. (May be included in the concentration in creative writing; admission by permission of the instructor.)

ENG 584. Fiction Workshop. 3 credits.

Fiction writing for those with demonstrated skill, with emphasis on perfecting narrative form and personal style. (May be included in the concentration in creative writing; admission by permission of the instructor.)



# Health Sciences

Dr. Stephen Stewart, Department Head

Dr. Maria T. Wessel, Graduate Coordinator

For information, call (540) 568-6510

<http://www.healthsci.jmu.edu>

## Professors

A. Bopp, P. Brevard, R. Koslow, S. Stewart, H.R. Travis,  
M. Wessel

## Associate Professors

J. Gloeckner, D. Sutton, T. Syre, J. Thompson, M. Warner,  
D. Wenos

## Assistant Professors

D. Torisky, T. Wagner

The Department of Health Sciences offers two degrees: *Master of Science in Education* and *Master of Science*. In addition, an interdisciplinary program in health care administration is offered as part of the Master of Business Administration.

In all programs, courses must be selected with the approval of the major and minor advisers in accordance with the purposes of the student. Students electing a major or minor in the health sciences department are expected to have adequate undergraduate preparation in the chosen area of graduate study and satisfactory Graduate Record Examination scores.

Students entering the graduate program who do not possess entry-level health education competencies will be required to obtain these competencies with course work and assignments determined to meet the need as prerequisites of the program. Some undergraduate courses may be taken concurrently with graduate work.

## Health Education

This 30 credit hour master's program will enable graduates to demonstrate a core level of knowledge and skills in relevant areas of health education research and practice. This program is based on the American Association for Health Education and the Society for Public Health Education *Standards for the Preparation of Graduate-Level Health Educators*. Graduate-level standards are built upon entry-level roles, responsibilities and competencies that reflect undergraduate health education preparation.

Students wishing to complete this program who have not had undergraduate health education preparation must work with their advisor to plan a program of appropriate undergraduate courses to meet entry level competencies in health education. This plan must be approved by the Graduate Coordinator during the first semester.

The Masters in Health Education requires completion of five core courses (15 credits), elective courses chosen with approval of the department academic advisor and either a non-thesis, directed research, or thesis option.

<b>First Year</b>	<b>Credit</b>
<b>Fall Semester</b>	<b>Hours</b>
HTH 655. Research Techniques	3
HTH 558. Health Planning	3
<b>First Year</b>	<b>Credit</b>
<b>Spring Semester</b>	<b>Hours</b>
MATH 522. Statistics for Researchers	3
HTH 552. Strategies for Health Change	3
<b>Second Year</b>	<b>Credit</b>
<b>Fall Semester</b>	<b>Hours</b>
HTH 669. Modern Health Care Administration	3

## Non-Thesis Option:

### Master of Science in Education

This option is designed for graduate students who wish to teach health or those students who are practicing health educators. Additional requirements must be completed to lead to Virginia Department of Education P, K-12 teacher licensure. Students will complete 15 credit hours in core courses and 6 credit hour electives in health sciences with a 9 credit hour minor in secondary or higher education. Students applying to the *Master of Science in Education* program must be admitted to both programs and have an adviser in education as well as in health sciences.

## Directed Research Option:

### Master of Science in Health Sciences

Students pursuing this option will complete 15 credit hours in core courses, 9 credit hour electives in health sciences, and 6 credit hours of directed research. This research would be more applied and have a broader breath of investigation than the traditional thesis. Evaluation may be more qualitative than quantitative and projects may be structured to meet the current needs of the student's professional goals.

## Thesis Option:

### Master of Sciences in Health Sciences

Students completing this option will earn 15 credit hours in core courses, 9 credit hours in electives in health sciences and 6 hours of thesis. Students choosing this option must follow the thesis guidelines of the Graduate Program and the thesis guidelines and deadlines of the Department of Health Sciences.

## Health Services Administration

The Department of Health Sciences cooperates with the College of Business *Master of Business Administration* program to offer a health services administration track within the *Master of Business Administration* program. This program is intended to provide practicing health professionals with the business skills and health systems knowledge necessary for promotion or to take advantage of new opportunities.

This track includes the following four courses:

- HTH 659. Health Care Environment (three credits)
- HTH 660. Health Economics (three credits)
- HTH 661. Financial Management of Health Services Organizations (three credits)
- HTH 669. Health Care Administration (three credits)

Three of these courses are used to meet *Master of Business Administration* elective requirements. Students in the health services administration track take HTH 661, Financial Management of Health Services Organizations, instead of FIN 655, Advanced Topics in Financial Management.

Students who have not had at least two years of work experience in a health services organization will be required to complete a three-month internship. Application for admission must be made to the College of Business *Master of Business Administration* program. Applicants must meet *Master of Business Administration* prerequisites requirements. Please refer to the Business Administration section (<http://cob.jmu.edu/mba>) for specific requirements for this concentration.

### Health Sciences

This 30-credit-hour master's program permits students to plan programs consistent with their needs and interests. This program is designed primarily for a limited number of students who have extensive health related experience and want to plan a specialized program of study. This requires advisor and departmental approval. The program requires HTH 552. Strategies for Health Change and HTH 655. Research Techniques.

### Administration of Health Promotion/Wellness Programs

This 36-hour *Master of Science* program has been planned for students with a degree in or experience in the health promotion and wellness industry. It is designed to increase competency in the administration of such programs and to review basic principles of the industry. The program is planned as a stepping stone into the administration of these programs. By its very nature, the program is interdisciplinary, with courses taken in health sciences, nutrition, kinesiology, psychology and business. The program consists of the following courses:

Minimum Requirements	Credit Hours
HTH 558. Health Planning	3
HTH 655. Research Techniques	3
HTH 659. Health Care Environment	3

HTH 661. Financial Management of Health Services Organization	3
HTH 669. Health Care Administration	3
KIN 645. Physiological Aspects of Muscular Activity	3
KIN 670. Program Development for Wellness Centers	3
MGT 645. Organizational Behavior	3
NUTR 545. Nutrition and Exercise	3
PSYC 515. Basic Counseling Skills	3
Choose one of the following:	6
HTH 685. Fieldwork	
HTH 700. Thesis	

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## Dietetics

A *Master of Science* degree may be pursued with a major in health sciences and a concentration in dietetics. The program is designed for graduates of dietetic programs approved by The American Dietetic Association who are seeking to become Registered Dietitians, Registered Dietitians who want an advanced degree or students studying areas closely related to dietetics, such as health sciences, psychology or education. Students who want to study in the area of nutrition but have had limited background will need to fulfill prerequisite requirements in nutrition, organic chemistry, biochemistry and statistics prior to full admission to the program.

Students desiring to qualify for dietetic registration can apply to JMU to fulfill this requirement by completing a six-month dietetic internship. The dietetic internship at James Madison University is accredited by the Commission on Accreditation for Dietetics Education of The American Dietetic Association.

### CADE

216 W. Jackson Boulevard  
Chicago, IL 60606-6995  
(312) 899-4876

Only applications from graduate students in the *Master of Science* program in health sciences/dietetics at JMU will be considered for the DI.

Prior to applying to the dietetic internship, the student must have completed a baccalaureate degree and a didactic program in dietetics approved by CADE at JMU or another university. Additionally, the student must have completed 18 credit hours in the graduate program, including NUTR 650 and NUTR 652, or be enrolled to complete these requirements prior to the start of the internship. Students must have unconditional admission status and a grade point average of 3.0 or above on a 4.0 scale in graduate courses in order to begin the internship. Application to the dietetic internship must be completed by Sept. 15 for the class starting Jan. 1 or March 15 for the class starting July 1. Completion of all dietetic internship competencies and all requirements for the Master of Science degree is required to qualify for the Dietitian Registration Examination.

This graduate program is designed so students can carry a full load of study while on the JMU campus and at the internship sites. Thirty-three credit hours are required for the degree program including research in a selected area

of dietetics. The degree can be completed in as few as 18 months and a maximum of six years. Most of the graduate courses in dietetics are offered in the evening.

<b>Minimum Requirements</b>	<b>Credit Hours</b>
<sup>1</sup> HTH 655/NUTR 660. Research Techniques/Research Methods in Dietetics	3
<sup>2</sup> MATH 522. Statistics for Researchers	3
<sup>1</sup> NUTR 655. Integrated Nutrition	3
<sup>2</sup> NUTR 654. Current Topics in Foods	3
Choose one of the following options:	6-7
Nonthesis option	
NUTR 681. Directed Research in Dietetics I (two credits)	
NUTR 682. Directed Research in Dietetics II (two credits)	
NUTR 695. Seminar/Research Interpretation in Dietetics (one credit, twice)	
Thesis option:	
HTH 700. Thesis (six credits)	
NUTR 695. Seminar/Research Interpretation in Dietetics (one credit)	
Choose one of the following options:	12
Internship option:	
<sup>3</sup> NUTR 650. Nutrition Education/Counseling	
NUTR 651. Medical Dietetics Practicum	
<sup>1</sup> NUTR 652. Nutrition Assessment	
NUTR 656. Food Systems Management Practicum	
Noninternship option (choose four of the following):	
<sup>2</sup> NUTR 545. Exercise and Nutrition	
<sup>2</sup> NUTR 555. Theories and Practices of Weight Management	
<sup>3</sup> NUTR 650. Nutrition Education/Counseling •	
<sup>1</sup> NUTR 652. Nutrition Assessment •	
Elective (adviser approval required)	
Elective to be selected by all students in program (adviser approval required)	3

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<sup>1</sup>Fall only<sup>2</sup>Spring only<sup>3</sup>Summer only

• Registered dietitians may petition to waive taking NUTR 650 and/or NUTR 652 and select one or two additional elective courses as replacements.

## Interdisciplinary Program in Nutrition and Physical Activity

This 33-credit-hour master's program permits students to major in health sciences/dietetics or kinesiology with a concentration in nutrition and physical activity. Students must declare a major in either health sciences or kinesiology with a concentration in nutrition and physical activity. This graduate program has been planned for Registered Dietitians or persons with an undergraduate degree in dietetics, kinesiology, or a related area. This program is designed for the student who has an interest in nutrition and its role in physical activity.

An undergraduate degree with a major in Health Sciences/dietetics, kinesiology, or a related field is required. Courses in nutrition, exercise physiology, anatomy and physiology are prerequisites for admission to the program. Students should also check the prerequisites listed in the catalog for each course required. Thirty-three hours are required for the degree program, including a thesis or directed research on a selected topic in nutrition and physical activity. The degree program can be completed in as few as two academic years, with a

maximum of six academic years. This program does not lead to the RD status recognized by the American Dietetic Association; however, students are encouraged to obtain the RD status by completing the Didactic Program in Dietetics requirements and competing for entry into the dietetic internship (NUTR 651 and NUTR 656), an additional six credits. A list of DPD requirements is available from the undergraduate coordinator of the dietetics program.

<b>Minimum Requirements</b>	<b>Credit Hours</b>
<sup>1</sup> KIN 544. Physiological Measurements	3
<sup>2</sup> NUTR/KIN 555. Theories and Practices of Weight Management	3
<sup>1</sup> KIN 645. Physiological Aspects of Muscular Activity	3
<sup>2</sup> KIN 650. Exercise Testing, Prescription and Evaluation	3
<sup>2</sup> HTH/KIN 655. Research Techniques	3
<sup>2</sup> MATH 522. Statistics	3
<sup>2</sup> NUTR 545. Nutrition and Exercise	3
<sup>1</sup> NUTR 652. Nutrition Assessment	3
Choose one of the following:	3
<sup>1</sup> NUTR 582. Nutrition and Metabolism	
<sup>1</sup> NUTR 655. Integrated Nutrition	
Choose one of the following:	6
HTH/KIN 700. Thesis	
NUTR 681, 682, 695. Directed Research in Dietetics I-II and Seminar and Research in Dietetics	

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<sup>1</sup>Fall only<sup>2</sup>Spring only

## Minor Program

### Health Sciences

A student working toward the *Master of Education* degree may minor in health sciences. A minimum of 12 credit hours in health sciences is required.

## Course Offerings

### Health Sciences

HTH 501. Workshop in Health and Nutrition. 1-3 credits.

An intensive investigation of a major current health problem such as sex education, drug abuse or environmental health.

HTH 510. Human Sexuality. 3 credits.

Components of human sexuality as they relate to the physical, social and emotional health of children, adolescents and adults. Such topics as physical and sexual changes during adolescence, abortions and contraceptives are discussed.

HTH 549. Contemporary Health Issues. 3 credits.

An investigation of concerns in the area of health promotion, including cardiovascular health, fitness, the personal role of health education, drugs and drug abuse, and other selected topics.

HTH 552. Strategies for Health Change. 3 credits.

An in-depth analysis of health education strategies employed in altering individual and community health behavior.

HTH 558. Health Planning, 3 credits.

An intensive exploration of resources and techniques employed in planning and evaluating health programs designed to meet the specific health needs of communities and groups.

HTH 645. Practicum in Health Sciences. 1-3 credits.

Selected practicum experiences for students in the various health sciences graduate programs.

HTH 655. Research Techniques. 3 credits.

This course examines: the focus of research, literature review, research design, choices of method of analysis, data collection techniques and the various ways to conclude a research effort. The logic of statistical analysis is used to develop research designs. *Prerequisite: One statistics course.*

HTH 657. Chronic Diseases. 3 credits.

Survey of common chronic diseases of humanity with emphasis on prevention and early diagnosis. Topics include such diseases as cardiovascular, endocrine, ophthalmic, respiratory and neurological disorders.

HTH 659. Health Care Environment. 3 credits.

This is a survey course examining the U.S. health care system, federal and state health policy, and public and private providers. Comparisons of the U.S. system will be made with other systems in the industrialized world.

HTH 660. Health Economics. 3 credits.

Course explores economic dimensions of the health care delivery system: demand, demand-related human behaviors, competitive markets, economic models for care delivery, regulation and medical insurance. Delivery models of other industrialized nations are considered, as is how the U.S. system may be improved. *Prerequisite: Undergraduate microeconomics.*

HTH 661. Financial Management of Health Services Organizations. 3 credits.

This course emphasizes financial management in a variety of health care organizations. Activities include the study of patient accounting, third party reimbursement and cost reporting. There will be extensive use of microcomputer spreadsheet methods. *Prerequisites: Required: HTH 659; recommended: FIN 645.*

HTH 669. Modern Health Care Administration. 3 credits.

Study of health organizations' internal operations through examination of activities in various health agency settings.

HTH 671. School Health Practice. 3 credits.

Analysis of two areas of the school health program (health services and health instruction) with emphasis on planning, implementing and evaluating health services and instruction.

HTH 680. Reading and Research. 3 credits.

Directed reading in designated areas of specialized interest. Investigating, researching and reporting. Course may be repeated for credit, with permission of the department head, when content changes.

HTH 685. Field Work in Health. 3-6 credits.

Practical experience in applying health theory to problems encountered in a professional setting. Specific assignments will be determined by the needs of the student. (Amount of credit will be based on amount of experience acquired. No more than six hours can be counted toward a degree program.)

HTH 698. Comprehensive Continuance. 1 credit.

Continued preparation in anticipation of the comprehensive examination. Course may be repeated as needed.

HTH 699. Thesis Continuance. 2 credits.

Continued study, research and writing in the area of thesis concentration. Course may be repeated as needed.

HTH 700. Thesis. 6 credits.

This course is graded on a satisfactory/unsatisfactory (S/U) basis. *Prerequisite: HTH 655 or equivalent.*

## Dietetics

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NUTR 545. Nutrition and Exercise. 3 credits

Addresses the relationship of nutrition and exercise and the effect of dietary intake. Techniques of nutritional assessment and counseling through dietary plans will be investigated. This course is designed especially for professionals who may be employed in physical fitness programs. *Prerequisite: NUTR 280 or equivalent.*

NUTR/KIN 555. Theories and Practices of Weight Management. 3 credits.

An examination of the physiological, psychological and environmental theories of obesity. Current trends in obesity research are examined. A case study and laboratories are utilized to provide students with practical experience in conducting a weight loss program. *Prerequisites: BIO 270, BIO 290, NUTR 280 or permission of instructor.*

NUTR 582. Nutrition and Metabolism. 3 credits.

A study of the nutrients, their roles in intermediary metabolism, the effects of genetic errors in metabolism, nutritional deficiencies and means of assessing nutritional status. Agencies and programs concerned with nutrition and health and current trends in nutrition research are emphasized. The development of an individual nutrition research project, collection and reporting of data is required. *Prerequisite: NUTR 280, physiology, biochemistry and statistics.*

NUTR 650. Nutrition Education and Counseling. 3 credits.

Review of philosophy and provisions of major nutrition education of current research in the field of dietetics. Techniques of planning, implementing and evaluating programs. Theories and techniques of nutrition counseling. Nutrition education and counseling experience will be provided in a variety of settings. *Prerequisite: NUTR 384 or equivalent.*

NUTR 651. Medical Dietetics Practicum. 3 credits.

The application of nutritional care to a variety of medical situations in a health-care setting. This is a six-month off-campus practicum in a clinical setting taken simultaneously with NUTR 656. Course will be graded on an S/U basis. *Prerequisite: Admittance into the dietetic internship.*

NUTR 652. Nutrition Assessment. 3 credits.

Methods of assessing nutritional status of people in clinical and experimental settings. *Prerequisite: NUTR 384 or equivalent.*

NUTR 654. Current Topics in Foods. 3 credits.

In-depth study of a variety of current topics related to the United States and global food supply, food processing, food regulation, food marketing, and the relationship between foods and disease. *Prerequisite: NUTR 446 or equivalent.*

NUTR 655. Integrated Nutrition. 3 credits.

The biochemical and physiological processes involved in nourishing the body in health and in disease. *Prerequisite: NUTR 482 or 582.*

NUTR 656. Food Systems Management Practicum. 3 credits.

Food systems management in menu development, equipment and food procurement, cost control, food production and service, and personnel management. A six-month off-campus practicum in a clinical setting taken simultaneously with NUTR 651. Course will be graded on an S/U basis. *Prerequisite: Admittance into the dietetic internship.*

NUTR 660. Research Methods in Dietetics. 3 credits. (Cross-listed with HTH 655.)

This course emphasizes skills in the initiation, conduct and interpretation of research, particularly that involving social science techniques applied to dietetics and health sciences. Emphasis is given to measurement issues, design, questionnaire development, survey techniques, field research, evaluation, quantitative (using SPSS) and qualitative analysis, and ethical issues. *Prerequisite: Undergraduate or graduate-level statistics course.*

NUTR 681. Directed Research in Dietetics I. 2 credits.

Advanced research in dietetics directed by a graduate advisory committee. Course will be graded on an S/U basis. *Prerequisites: Unconditional admission status in the graduate program and HTH 655.*

NUTR 682. Directed Research in Dietetics II. 2 credits.

Advanced research in dietetics research directed by a graduate advisory committee. Course will be graded on an S/U basis. *Prerequisites: NUTR 681.*

NUTR 695. Seminar and Research Interpretation in Dietetics. 1 credit. Critical evaluation and interpretation of current research in the field of dietetics. Professional oral and graphic presentation of results obtained from research completed in NUTR 682 or HTH 700 required during the final semester in which the course is taken. May be repeated up to a total of two credits. *Prerequisite: Undergraduate statistics.*

NUTR 697. Directed Research Continuance. 1 credit.

Continued study, research and writing in the area of directed research project. Course may be repeated as needed, but does not count toward degree requirements. Course will be graded on an s/u basis.

# History

Dr. Michael J. Galgano, Department Head

For information, call (540) 568-6132

<http://www.jmu.edu/history>

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## Professors

S. Bland, C. Boyd, D. Boyd-Rush, L. Congdon, M. Galgano,  
R. Hyser, M. Loe, C. Marshall, H. Myers, D. Owusu-Ansah,  
P. Riley, C. Yoon

## Associate Professors

J.C. Arndt, J. Butt, S. Guerrier, J. Walker

## Assistant Professors

P. Dillard, K. Hardwick, L. King, G. Lanier, R. Meixsel, M. Seth

The Department of History offers the *Master of Arts* degree with a major in history.

The program offers an opportunity for concentration in five fields of history:

- U.S. history prior to 1877
- U.S. history since 1865
- early modern European history (1648-1815)
- modern European history (since 1789) and
- local, state and regional history.

All applicants must submit two letters of recommendation, one of which is from a professor in the history major, and a brief essay (approximately 500 words) identifying your area of intended specialization and your long-range career aspirations.

Admission requirements are completion of at least 24 credit hours of undergraduate credit in history, or their equivalent, with approximately a "B" average or higher, and submission of satisfactory scores on the Graduate Record Examination General Test.

Minimum departmental requirements for the *Master of Arts* degree with a major in history are as follow:

- M.A. with thesis option: Thirty credit hours of graduate credit in history with a minimum of 18 hours in courses numbered 600 or above. A thesis for six credit hours credit (included in the 30-hour requirement).
- M.A. without thesis option: Thirty credit hours of graduate credit in history with a minimum of 24 hours in courses numbered 600 or above.
- Completion of the second year of a college course in a modern foreign language with a grade of "C" or above, or successful completion of a reading examination approved by the history department in a modern foreign language.
- Successful completion of an oral comprehensive examination in one of the five fields of concentration.
- At least 6 credit hours of course work outside the field of concentration.

Admission requirements for the program leading to the *Master of Arts in Teaching* degree are completion of at least 24 credit hours of undergraduate credit in history or equivalent with approximately a "B" average or higher, and submission of satisfactory scores on the Graduate Record Examination General Test.

The minor in history in the *Master of Education* degree requires 12 credit hours of graduate courses in history.

Prerequisites for enrolling in graduate courses in history are HIST 225, U.S. History, or equivalent, for courses in U.S. or Latin American history; and General Education history, or equivalent, for courses in European, African or Asian history.

## Course Offerings

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### History

HIST 501. Workshop in History. 1-3 credits.

Intensive study of topics of current interest and demand. Primarily designed for history and social studies teachers. May be repeated for credit when content is different.

HIST 502. Workshop in Colonial American Life. 3 credits.

A comparative study of life in 18th century Virginia and Massachusetts. Colonial Massachusetts is studied through the use of printed materials, films and lectures. Published sources, lectures and a four-day study visit to Colonial Williamsburg are used for the study of Virginia. Supplemental fee required.

HIST 511. Colonial America. 3 credits.

An interpretative survey of England's mainland colonies from 1558-1776.

HIST 520. U.S. History, 1763-1800. 3 credits.

An interpretive study of the political, economic, social and cultural history of the United States from the French and Indian War through the Federalist period.

HIST 525. Civil War and Reconstruction. 3 credits.

A study of the background, development, personalities and aftermath of the Civil War. Special attention is given to the coming of the war and different explanations of its causes, and to the policies and significance of Reconstruction, with varying interpretations thereof.

HIST 530. The Gilded Age. 3 credits.

An interpretative study of U.S. history from the conclusion of the Civil War until the assassination of William McKinley, with special emphasis on industrialization, urbanization, western and overseas expansion, early reform movements and politics.

HIST 531. Reform, World War and Prosperity. 3 credits.

An interpretative study of U.S. history from the rise of Theodore Roosevelt through the 1920s. Emphasis is placed on the reform movements of the period and the problems and issues generated by the nation's emergence as a world power and an industrial, urban society.

HIST 532. Depression, War and Cold War. 3 credits.

An interpretative study of U.S. history from the onset of the Great Depression in 1929 through the inauguration of John F. Kennedy in 1961. Emphasis is given to the New Deal, World War II, and the early years of the Cold War.

HIST 533. Reform, Upheaval and Reaction. 3 credits.

An interpretive study of U.S. history from the election of John Kennedy in 1961 to the present. Emphasis is given to the Kennedy-Johnson administrations, Vietnam, the counterculture and student movement, Watergate and the Reagan years.

HIST 540. Internship in History. 3 credits.

Provides students with practical experience in using historical skills in a public or private agency. Periodic student reports and seminars are required. This course may be repeated for credit. *Prerequisite: Permission of department head.*

HIST 555. World Political and Social Thought to Early Modern Times. 3 credits. (Cross-listed as POSC 555.)

A study of the most significant political and social ideas from around the world. Emphasis will be both on the classics and the popular ideas from Western Asia, China, Greece, India, Rome, Japan and the developing states of Europe from ancient times through the 18th century.

HIST 560. Modern Japan. 3 credits.

The development of Japan from around the mid-19th century to the present. Attention is given to the collapse of isolation, the end of the Shogunate, the creation of a modern state, the years of party government, the rise of militarism, the Pacific war, the occupation and the new Japan.

HIST 561. Seminar in Marxist-Leninist Theory. 3 credits.

(Cross-listed as POSC 561.)

A study of the most significant ideas concerning politics, society, economics and philosophy which have shaped Communism and Marxist varieties of socialism.

HIST 562. The Rise and Fall of Nazi-Germany, 1918-1945. 3 credits.

An advanced study of the period of Nazi domination in Germany covering the Weimar Republic, the rise of the NSDAP, the Third Reich and World War II. The nature of totalitarianism, the character of Adolf Hitler and the general Weltanschauung of Germany under the Third Reich are emphasized.

HIST 563. Tudor-Stuart England. 3 credits.

A study of the economic, intellectual, political and religious development of the English people from 1485 to 1714, with special attention to the constitutional struggles of the 17th century.

HIST 564. Renaissance and Reformation. 3 credits.

A study of High Medieval civilization as an introduction to the history of Modern Europe. Attention is given to the Italian and Northern Renaissance, the fragmentation of Western Christendom, the intellectual impact of Luther and Calvin on Western thought, and the structure of Tudor despotism in England.

HIST 566. The Family, 1400-1800. 3 credits.

An examination of the bibliography, methods and substance of family history. Emphasis will be on sources, structure, patterns of change and continuity, and stages of family life to the Industrial Revolution.

HIST 570. Modern Africa. 3 credits.

Africa in the 20th century, with special emphasis on Senegal, Ivory Coast, Gold Coast (Ghana), Nigeria and Zaire.

HIST 575. Soviet Russia. 3 credits.

A study of Soviet Russia from the 1917 Revolution to the present. Topics include the Revolution and Civil War, the cultural revolution of the 1920s, collectivization, the purges, World War II and the postwar emergence of the Soviet Union as a world power.

HIST 577. Medieval Europe. 3 credits.

Attention is focused on Europe in the Middle Ages, with a concentration on social and intellectual aspects and on the development of parliamentary institutions.

HIST 578. Eastern Europe. 3 credits.

A study of the lands between Germany and Russia, from the Baltic to the Balkans. Emphasis is on the Hapsburg Empire and its successor states, the origins of the World Wars, the post-World War II communist governments, and the cultural and intellectual contributions of the Eastern European peoples.

HIST 580. Modern China. 3 credits.

China since 1840, with special emphasis on China's response to the West, the disintegration of imperial China, the abortive experiments in republicanism, the origin and nature of Chinese communism, China under Mao and post-Mao developments.

HIST 581. Early Modern Europe: The New Worlds of Exploration and Science. 3 credits.

A study of the major changes in world view brought on by exploration and science in the 15th, 16th and 17th centuries in Europe. Attention is given to the causes of each movement as well as the individuals and the technology involved.

HIST 583. Baroque and Revolutionary Europe, 1648-1815. 3 credits.

A study of the unfolding of European civilization from the Baroque through the Napoleonic era. Attention is given to the Old Regime and its institutions, the causes of popular revolts, the Enlightenment, the beginnings of industrialism and urbanism, and the impact of the French Revolution upon Europe.

HIST 584. Nineteenth-Century European Civilization, 1815-1914. 3 credits.

An interpretive study of European history from the Congress of Vienna to the outbreak of World War I. Particular attention is given to the intellectual climate of the period, with emphasis on liberalism, nationalism, socialism and nihilism.

HIST 585. The Arab Middle East, 1945 to Present. 3 credits.

A survey of the special problems which have beset the Arab Middle East since World War II. Special emphasis will be given to Palestinian Nationalism and to the PLO, to the origins of civil conflict in Lebanon, to Iraqi and Syrian Baathism, and to the revival of Islamic fundamentalism.

HIST 586. Europe Since 1914. 3 credits.

An interpretive study of European history from World War I to the Cold War, with special emphasis on the revolutions of 1917-19, the rise of totalitarianism, the origins of World War II and the continuing crisis of values.

HIST 587. World War II. 3 credits.

An examination of the origin, conduct and immediate Aftermath of World War II in Europe and in Asia. Attention is given to Japan's Pacific war, Hitler's war in Europe and the ultimate victory of the Allied "Grand Alliance." The major military campaigns are discussed as are collaboration, resistance and the War crimes trials.

HIST 590. Reading and Research. 3 credits.

Opportunity is offered the individual student for reading and research in an area of history of special interest. This course is open only to students majoring in history. *Prerequisite: Permission of department head.*

HIST 591. Editing Historical Documents. 3 credits.

A seminar in the techniques of analyzing manuscript collections in order to create an edition of historical documents. Study will address the theory and practice of historical documentary editions, including collecting, selecting, transcribing, annotating, proofing, illustrating, indexing and publishing.

HIST 593. Historic Preservation. 3 credits.

An introduction to the philosophy and technique of historic preservation. It examines the Secretary of the Interior's guidelines for restoration, state and National Register forms and procedures, historic architecture, structural analysis, restoration techniques as well as the business aspects of historic preservation projects.

HIST 594. Introduction to Museum Work. 3 credits.

(Cross-listed as ART/ARTH 594.)

A study of the philosophy and practice of museum work. Emphasis on museum administration, conservation, exhibition and education. Provides background for internships and employment in the field.

HIST 600. Seminar in U.S. History: Early Period. 3 credits.

A topical approach to the study of early U.S. history. Topics might include Colonial America, the American Revolution, the Market Revolution, Civil War and Reconstruction, American Intellectual History or any pertinent topic falling within the pre-1877 period. Topic and professor offering course will change each semester. This course may be repeated when content is different. See Schedule of Classes for current topic and professor.

HIST 605. Seminar in U.S. History: Recent Period. 3 credits.

A topical approach to the study of recent U.S. history. Topics might include: American Science and Technology, Industrialism, 20th-Century Diplomacy, Black Nationalist Thought, 20th-Century American Military History or any pertinent topic falling within the post-1865 period. Topic and professor offering the course will change each semester. This course may be repeated when content is different. See Schedule of Classes for current topic and professor.

HIST 610. Seminar in European History: Early Period. 3 credits.

A topical approach to the study of early European history. Topics might include Ancient History, Medieval Europe, Tudor-Stuart England, Renaissance and Reformation, the Era of the French Revolution or any pertinent topic falling within the pre-1815 period. Topic and professor offering the course will change each semester. This course may be repeated when content is different. See Schedule of Classes for current topic and professor.

HIST 615. Seminar in European History: Recent Period. 3 credits.

A topical approach to the study of recent European history. Topics might include Europe in the 19th century, Europe between the World Wars, Europe during the Cold War, Russia or any pertinent topic falling within the post-1789 period. Topic and professor offering the course will change each semester. This course may be repeated when content is different. See Schedule of Classes for current topic and professor.

HIST 620. Seminar in World History. 3 credits.

A topical approach to the study of history in areas aside from Europe and the United States. Topics might include Latin America, Modern Japan, Modern China, Modern Africa, Islamic World or any pertinent topic falling within parameters of concentration. Topic and professor offering the course will change each semester. This course may be repeated when content is different. See Schedule of Classes for current topic and professor.

HIST 670. Seminar in Historical Research Techniques. 3 credits.

Systematic presentation of the theories and techniques of historical research, including detailed analysis of historiography past and present. *Required of all first year graduate students.*

HIST 671. Colloquia in European History. 3 credits.

An intensive reading colloquium focused on selected historiographical issues, topics, methodologies and interpretations of European history from the Renaissance to the end of the 20th century. Issues and readings will change each semester. *Required of all first year graduate students with European concentrations.*

HIST 672. Readings in American History. 3 credits.

An intensive reading colloquium focused on selected historiographical issues, topics, concepts, methodologies and interpretations of American history from the Colonial period to the end of the 20th century. Issues and readings will change each semester. *Required of all first year graduate students with American concentrations.*

HIST 673. Graduate Research and Writing Seminar. 3 credits.

An intensive research and writing seminar focused on the process of conceptualizing, researching, writing and refining historical research papers grounded in primary sources. Emphasis will be on evaluation of sources, interpretation of evidence, refinement of presentation and development of professional standards of criticism. *Required of all first year graduate students.*

HIST 690. Special Topics in History: Scientific and Technical Communication. 3 credits.

HIST 698. Comprehensive Continuance. 1 credit.

Continued preparation in anticipation of the comprehensive examination. Course may be repeated as needed.

HIST 699. Thesis Continuance. 2 credits.

Continued study, research and writing in the area of thesis concentration. Course may be repeated as needed.

HIST 700. Thesis. 6 credits.

This course is graded on a satisfactory/unsatisfactory (S/U) basis.



# Kinesiology and Recreation Studies

Dr. Michael Goldberger, School Director

For information, call (540) 568-6145

<http://www.jmu.edu/kinesiology>

## Professors

J. Dalton, J. Flohr, M. Goldberger, C. McMillin, J. Vedelli

## Associate Professors

L. Ham, J. Williams

## Assistant Professors

S. Carney, M. Saunders, M. Slattery

The School of Kinesiology and Recreation Studies offers a 33-credit-hour *Master of Science* degree with concentrations in exercise physiology, nutrition and physical activity, fitness specialist, athletic administration and coaching, sport and recreation management and kinesiology specialist. Each concentration offers either a thesis or nonthesis option.

In all programs, courses must be selected with the approval of the major and minor advisers in accordance with the professional goals of the student. Students electing a major or minor in kinesiology are expected to have satisfactory Graduate Record Examination scores and adequate undergraduate preparation including at least one course in a cognate area of the discipline.

Some undergraduate courses may be taken concurrently with graduate work.

## Concentrations

### Exercise Science: Exercise Physiology

This 33-credit hour Exercise Science program leads to a *Master of Science* degree with a major in kinesiology and a concentration in the area of exercise physiology. Students in this program receive background preparation necessary for doctoral work in exercise physiology as well as expertise in physiological testing, exercise prescription, and research. Graduates of this program have been successful in pursuing advanced degrees in exercise physiology and/or have been placed as exercise physiologists in the fitness/wellness industry including cardiac rehabilitation settings. Program goals were developed in conjunction with the knowledge, skills and abilities identified by the American College of Sports Medicine as essential for successful professional preparation. All students are required to do directed research, however students may select either a thesis or non-thesis option.

#### Minimum Requirements

	Credit Hours
KIN 542. Exercise Programs for Special Populations	3
KIN 644. Metabolic and Cardiorespiratory Aspects of Exercise	3
KIN 645. Muscular, Hormonal, and Environmental Aspects of Exercise	3
KIN 647. Strength and Flexibility Development	3
KIN 650. Exercise Testing, Evaluation and Prescription	3

KIN 655. Research Techniques	3
MATH 522. Statistics for Research	3
Choose one of the following:	3-6
KIN 697. Directed Research in Kinesiology	
KIN 700. Thesis	
Approved electives	6-9
	33

### Exercise Science: Fitness Specialist

This 33-hr. program leads to a *Master of Science* degree with a major in kinesiology and a concentration in fitness specialist. The program is designed to prepare students to work at all levels in the fitness/wellness industry, including program administration and exercise testing and prescription. Graduates of this program have been placed in settings such as corporate, commercial, hospital-based and community fitness/wellness programs. Program goals were developed in conjunction with the knowledge, skills and abilities identified by the American College of Sports Medicine as essential for successful professional preparation in the fitness/wellness area. All students are required to do directed research, however students may select either a thesis or non-thesis option. An internship is also required in this program.

#### Minimum Requirements

	Credit Hours
KIN 542. Exercise Programs for Special Populations	3
KIN 644. Metabolic and Cardiorespiratory Aspects of Exercise	3
KIN 645. Muscular, Hormonal and Environmental Aspects of Exercise	3
KIN 647. Strength and Flexibility Development	3
KIN 650. Exercise Testing, Evaluation and Prescription	3
KIN 655. Research Techniques	3
KIN 670. Program Development of Wellness Centers	3
KIN 681. Internship in Exercise Science	3
Choose one of the following:	3-6
KIN 697. Directed Research in Kinesiology	
KIN 700. Thesis	
Approved electives	3-6
	33

### Exercise Science: Nutrition and Physical Activity

This interdisciplinary program has been planned for persons with an undergraduate degree in kinesiology, dietetics, including registered dietitians, or an approved area, and is designed for individuals interested in nutrition in exercise performance settings. Courses in nutrition,

exercise physiology, human anatomy and physiology are prerequisites for admission. Students enrolled in this 33-credit-hour program must declare a major in either health sciences/dietetics or kinesiology with a concentration in nutrition and physical activity, and will be assigned an adviser in both departments.

A thesis or directed research on a selected topic in nutrition and exercise is required. Although this program does not lead to the RD status by the American Dietetic Association, students may obtain this status by completing additional requirements. A listing of these requirements is available from the undergraduate coordinator of the dietetics program (also see dietetics).

#### Minimum Requirements

	<b>Credit Hours</b>
KIN/NUTR 555. Theories and Practices of Weight Management	3
KIN 644. Metabolic and Cardiorespiratory Aspects of Exercise	3
KIN 645. Muscular, Hormonal and Environmental Aspects of Exercise	3
KIN 650. Exercise Testing, Prescription and Evaluation	3
KIN/HTH 655. Research Techniques	3
MATH 522. Statistics	3
NUTR 545. Nutrition and Exercise	3
NUTR 652. Nutrition Assessment	3
Choose one of the following:	3
NUTR 582. Nutrition and Metabolism	
NUTR 655. Integrated Nutrition	
Choose one of the following:	6
KIN/HTH 700. Thesis	
NUTR 681, 682, 695. Directed Research in Dietetics I-II and Seminar and Research in Dietetics	

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### Sport Studies: Athletic Administration/Coaching

This 33-credit hour sport studies program is designed for students who wish to pursue a career in athletic administration and/or coaching. Students who complete the athletic administration/coaching requirements are prepared to work at all levels including secondary and collegiate athletics. Graduates of this program may find employment in such positions as high school and college coaches, athletic directors and youth sports programs administration. An internship is required in this program.

#### Minimum Requirements

	<b>Credit Hours</b>
KIN 570 Administration in Sport Studies	3
KIN 578 Principles & Issues of Coaching	3
KIN 625 Social Issues in Sport Studies	3
KIN 631 Philosophy of Sport Studies	3
KIN 655 Research Techniques	3
KIN 675 Legal Aspects of Sport Studies	3
KIN 685 Internship in Sport Studies	3
6 hours of approved electives or KIN 700 (Thesis)	6

#### Athletic Administration option:

KIN 572 Facilities in Sport, Rec. & Ex. Programs	3
Approved elective	3

#### Coaching option:

Choose one of the following:	3
KIN 510. Principles of Motor Learning	
KIN 506. Advanced Biomechanics	
KIN 622 Motivation and Achievement in Sport	
Choose one of the following:	3
KIN 644. Metabolic and Cardiorespiratory Aspects of Exercise	

KIN 645. Muscular, Hormonal and Environmental Aspects of Exercise  
KIN 647. Strength and Flexibility Development

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### Sport Studies: Sport and Recreation Management

The 33-credit hour Sport Studies program is designed for students who wish to pursue a career in sport or recreation management. Students who complete the sport/recreation management requirements are prepared to work in administrative positions in sport, recreation and leisure studies. Graduates of the sport studies program may find employment in such positions as high school and college recreation, professional and amateur organizations, public and private recreation organizations, sporting goods manufacturers, youth sports programs, and event facility management. An internship is required in this program.

#### Minimum Requirements

	<b>Credit Hours</b>
KIN 570 Administration in Sport Studies	3
KIN 572 Facilities in Sport, Rec. & Ex. Programs	3
KIN 625 Social Issues in Sport Studies	3
KIN 631 Philosophy of Sport Studies	3
KIN 655 Research Techniques	3
KIN 673 Fiscal Mang. of Sport, Rec. & Ex. Programs	3
KIN 675 Legal Aspects of Sport Studies	3
KIN 685 Internship in Sport Studies	3
Choose one of the following:	9
Approved electives	
KIN 700 Thesis (6 credits) and an approved Elective (3 credits)	

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### Kinesiology Specialist

This 33-hr. program leads to a *Master of Science* degree with a major in kinesiology and a concentration in kinesiology specialist. The degree program is designed for students who wish to combine advanced study in kinesiology with an approved support area. All students are required to do directed research, however students may select either a thesis or non-thesis option. Both options require completion of 18-21 credit hours of core courses, 9 hours of approved support area and 3-6 elective hours.

#### Minimum Requirements

	<b>Credit Hours</b>
KIN 510. Principles of Motor Learning	3
KIN 631. Philosophy of Sport Studies	3
Choose one of the following:	3
KIN 644. Metabolic and Cardiorespiratory Aspects of Exercise	
KIN 645. Muscular, Hormonal, and Environmental Aspects of Exercise	
KIN 647. Strength and Flexibility Development	
Choose one of the following:	3
KIN 622. Motivation and Achievement in Sport	
KIN 625. Social Issues in Sport Studies	
Choose one of the following:	3-6
KIN 697. Directed Research in Kinesiology	
KIN 700. Thesis	
Approved support area of study	9
Approved electives	6-9

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## Minor in Kinesiology

A student working toward the *Master of Education* degree may minor in kinesiology. A minimum of 12 credit hours in kinesiology is required. All courses must be approved by the minor adviser.

### Course Offerings

#### Kinesiology

- KIN 501. Workshop in Kinesiology. 1-3 credits.  
An intensive study of one aspect of kinesiology that is of current concern to physical educators in the field.
- KIN 506. Applied Biomechanics. 3 credits.  
A study of biomechanical concepts and applications as they relate to sport and physical activity. Specific attention will be given to the application of biomechanical concepts and principles in the analysis of movement skills. *Prerequisites: KIN 306 or permission of instructor.*
- KIN 510. Principles of Motor Learning. 3 credits.  
Principles and theories of learning motor skills and their applications in teaching and coaching physical education activities.
- KIN 542. Exercise Programming for Special Populations. 3 credits.  
An in-depth study of the role of exercise in disease prevention and rehabilitation. Emphasis will be placed on health risks that present physiological limitations which affect the principles of exercise testing and prescription. *Pre-requisite: an undergraduate course in exercise physiology or permission of the instructor*
- KIN 546. Exercise and the Older Adult. 3 credits.  
An in-depth study of the theories and principles of exercise testing, prescription and programming for the older adult. Emphasis will be given to the significance of physical activity on the health of the aging population.
- KIN 555. Theories and Practices of Weight Management. 3 credits.  
An examination of the physiological, psychological and environmental theories of obesity. Current trends in obesity research are emphasized. Case studies and laboratories are utilized to provide students with practical experience in constructing a weight loss program.
- KIN 570. Administration in Sport Studies. 3 credits.  
Specific problems and new developments in the administration of sport and exercise programs, including business procedures, equipment, facilities, conduct of athletic events, school law and liability, staff and public relations.
- KIN 572. Facilities in Sport, Recreation and Exercise Programs. 3 credits.  
The planning, construction, maintenance and utilization of sport, exercise and recreation facilities.
- KIN 575. Gender Issues in Sport. 3 credits.  
A study of the institutional, political and societal perpetuation of gender identity and its relationship to sport participation.
- KIN 578. Principles and Issues of Coaching. 3 credits.  
Both theoretical and practical aspects of coaching in secondary schools and higher education.
- KIN 622. Motivation and Achievement in Sport. 3 credits.  
The study of sport performance including achievement motivation, individual aggression, attribution theory and goal setting. Application of theoretical concepts to teaching and coaching for optimal performance.
- KIN 625. Social Issues in Sport Studies. 3 credits.  
Current research and literature in the sociology of sport. Emphasis is on sport in American culture; issues in international sport are considered.

KIN 631. Philosophy of Sport Studies. 3 credits.

A critical review of literature concerning the nature and significance of sport from a philosophic perspective, including current modes of inquiry. Implications for sport in education are also discussed.

KIN 644. Metabolic and Cardiorespiratory Aspects of Exercise. 3 credits.

An advanced course in exercise physiology that examines the acute responses and chronic adaptations of the metabolic, cardiovascular, and respiratory systems. *Pre-requisite: an undergraduate course in exercise physiology or permission of the instructor*

KIN 645. Muscular, Hormonal, and Environmental Aspects of Exercise. 3 credits.

An advanced course in exercise physiology that examines the acute responses and chronic adaptations of the neuromuscular system, and hormonal and environmental factors that influence the body's response to exercise. *Pre-requisite: an undergraduate course in exercise physiology or permission of the instructor.*

KIN 646. Cardiovascular Dynamics. 3 credits.

An in-depth analysis of cardiovascular functioning including sedentary and exercise lifestyles, rehabilitation, nutrition and stress; laboratory includes cardiovascular assessment techniques, stress testing and exercise prescriptions. *Pre-requisite: an undergraduate course in exercise physiology or permission of the instructor.*

KIN 647. Strength and Flexibility Development. 3 credits.

A study of the physiological aspects of strength and flexibility development. Topics include muscle fiber and connective tissue characteristics, neural control, and training adaptations related to both general fitness and sport-specific training programs. *Pre-requisite: an undergraduate course in exercise physiology or permission of the instructor.*

KIN 649 A, B, C. Practicum in Fitness Programs. 1 credit each.

A practicum designed to allow students in the adult fitness program to gain experience as an exercise leader, an exercise-testing technician, and in procedures used to prescribe exercise in healthy subjects and patients with chronic disease. *Pre-requisite: permission of the instructor.*

KIN 650. Exercise Testing, Evaluation and Prescription. 3 credits.

An in-depth analysis of preventive and rehabilitative exercise program design, exercise testing, electrocardiography and exercise prescription. *Prerequisite: KIN 644 or permission of instructor.*

KIN 655. Research Techniques. 3 credits.

Skill in the initiation, conduct and interpretation of research. Laboratory procedures in physical education, recreation, exercise science, and athletics are included as well as historical, philosophical and descriptive methods. Special emphasis is given to laboratory, experimental, field and action research.

KIN 670. Program Development for Wellness Centers. 3 credits.

A study of the development, implementation and administration of wellness/fitness programs that emphasize the adult population.

Kin 673 Fiscal Management of Sport, Recreation & Exercise Programs, 3 credits.

An overview of fiscal resources and financial administration of sport and recreation programs and facilities. The course will focus on the financial administration of public agencies, private organizations and commercial enterprises. Management areas relating to financial principles and policies, sources of revenue, types of expenditures, budget preparation, and preparation of grant proposals will be discussed.

Kin 675 Legal Aspects of Sport Studies

A study of legal issues related to the administration of sport and recreation facilities, programs, and services. An in-depth analysis of the legal foundations and responsibilities of sport and recreation agencies including tort and constitutional law, liability and risk management, contractual law, human resource management, and the legislative and judicial processes.

KIN 680. Reading and Research. 3 credits.

Directed reading in designated areas and specialized interests. Investigating, researching and reporting. *Pre-requisite: permission of the instructor.*

KIN 681. Internship in Exercise Science. 3 credits.

Provides the student with an opportunity for practical experience in exercise testing and prescription, program administration, or other professional responsibilities within the wellness/fitness industry. Specific assignments will be determined by the needs of the student. Taken in final semester of program. *Pre-requisite: permission of the instructor.*

KIN 685. Internship in Sport Studies. 3-6 credits.

Practical experience in applying administrative theory to problems encountered in a professional setting. Specific assignments will be determined by the needs of the student. (Amount of credit will be determined by the amount of experience acquired; no more than six hours can be counted toward a degree program.) *Pre-requisite: permission of the instructor.*

KIN 697. Directed Research in Kinesiology. 3 credits.

Advanced research in kinesiology under the direction of a graduate advisor. Course will be graded on an S/U basis. *Pre-requisite: KIN 655. Research Techniques and permission of the instructor.*

KIN 698. Comprehensive Continuance. 1 credit.

Continued preparation in anticipation of the comprehensive examination. Course may be repeated as needed. *Pre-requisite: permission of the instructor.*

KIN 699. Thesis Continuance. 2 credits.

Continued study, research and writing in the area of thesis concentration. Course may be repeated as needed. *Pre-requisite: permission of the instructor.*

KIN 700. Thesis. 3-6 credits.

*Prerequisite: KIN 655 or equivalent and permission of the instructor.*

# Music

*Dr. Mellasenah Y. Morris, Director*

For information, call (540) 568-6197/6714

<http://www.jmu.edu/music>

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## Professors

V. Berneking, I. Choi, S. Cross, J. Cryder, S. Cryder,  
J. Hilliard, J. Little, R. McCashin, McPherson, M. Morris,  
C. Noe, J. Rooney, E. Ruple

## Associate Professors

P. Brady, B. Cockburn, J. Hiatt, G. Ritcher

The James Madison University School of Music is committed to the highest level of music training. It offers graduate degrees in conducting, music education, performance, and music theory/composition. Graduate work involves post-baccalaureate, focused study to achieve mastery of a specific field of music. For each specific degree concentration, the graduate program seeks to provide a course of study and environment for excellence.

To fulfill this mission, the School of Music strives to:

- introduce students to the most advanced knowledge in their specific field
- provide the means for enhanced professional accomplishment and supervised practical experience
- foster the means and ability to carry out scholarly research and creative projects
- prepare students for continuing development and study in doctoral programs

The School of Music is an active unit of approximately 375 undergraduates, 30 graduate students, and a faculty and staff of 50. More than 200 performances are given on campus each year by student recitalists, 25 student ensembles, faculty, faculty ensembles, guest artists and clinicians. The level of performance is highly professional and several ensembles and soloists enjoy regional and national prominence.

The school's graduate students represent a wide variety of fine undergraduate institutions and a range of experiences that makes possible a valuable interchange among students and faculty. The faculty/student ratio also allows for a close relationship and provides the opportunity for individualized instruction in many areas.

The School of Music offers a *Master of Music* degree with concentration options in conducting, music education, performance and theory/composition. The program seeks to assure an opportunity for the highest degree of musical development and professional training for each student, appropriate for careers in teaching, performance and composition of music. Conducting majors will undertake a comprehensive study of the literature of their medium, develop advanced insights into the musical ideas and structure of the major works, and refine their conducting and rehearsal skills. Performance majors will

specialize in activities that develop the technical mastery and musical maturity essential to the art of making music involving the chosen instrument or voice. Student composers will immerse themselves in the techniques and aesthetics of musical creation and will become aware, through intensive examination, of the music and musical thought of all style periods, especially that of the present and immediate past. Music education students will examine the foundations and principles underlying the practices of their profession and will develop both scholarly and technical abilities essential to a continuing development as effective teachers and leaders.

All concentrations have a minimum requirement of 32 hours of graduate credit. In addition to opportunities to broaden and improve skills through music electives, music education majors have the option to pursue courses selected from programs in elementary, secondary or higher education. Graduate students who major in non-music programs may elect the graduate music minor, earning a minimum of 12 hours of graduate credit in courses approved by the music school's coordinator of graduate studies.

A student entering a graduate program in music is expected to have completed an undergraduate degree with a major in music or its equivalent and have a grade point average of 2.75 or better in music studies. In addition to Graduate School requirements, the School of Music administers its own diagnostic examinations in written theory, ear training and music literature prior to the student's first semester. The school also requires successful completion of any deficiencies by the time 18 credit hours of study have been completed.

In addition to these general requirements, conducting majors must pass examinations in conducting, and those in choral conducting must pass tests in sightsinging, keyboard skills and language diction, while instrumental students must pass examinations in score reading, keyboard skills and orchestration. Performance majors must successfully pass an audition, while theory/composition majors must submit scores and/or tapes of original works showing satisfactory potential as composers or documented materials demonstrating adequate skills and capabilities in theory.

Students electing to minor in music are expected to have completed an undergraduate minor in music or must demonstrate acceptable competencies or skills appropriate to an undergraduate minor at JMU.

Post-baccalaureate, post-master's and other qualified students may enroll in certain courses on a limited basis. For details concerning requirements and deadlines, contact Carol Kniebusch Noe, coordinator of graduate studies, School of Music.

The School of Music is a full member of the National Association of Schools of Music.

## Assistantships

Teaching and nonteaching graduate assistantships in music are awarded each year on a competitive basis. Specific assignments in applied music, ensembles, music education, theory and literature, accompanying, and administration are based on students' qualifications and School of Music needs. In addition to an attractive stipend, all assistantships include tuition scholarship for nine graduate credit hours during each fall and spring semester. For more detailed information, procedures for application and deadlines, contact Dr. Mellasenah Morris, director of the School of Music.

## The Curriculum

The courses in each *Master of Music* degree concentration are to be distributed among courses in the major area, cognate courses in music, approved electives and a significant major project. Concentration projects are

- Conducting – a lecture recital
- Music education – a thesis, document or research project in MUED 691
- Performance – a recital or lecture recital
- Theory/composition – a composition project, or a thesis or document in theory

All entering students who apply for admission to the *Master of Music* degree program are required to complete a core curriculum comprised of 10-11 credits which will serve as a basis for designing their programs of study. The core curriculum is composed of the following: MUS 600, Introduction to Graduate Study in Music (three credits); specified literature courses (six credits for conducting students, three for all others – choice to be governed in part by placement examination); a theory course designated for the particular concentration (two-three credits); and MUAP, applied study or ensembles (two credits minimum).

All students are expected to complete the core curriculum at the earliest opportunity, in a sequence approved by the School of Music coordinator of graduate studies.

Prior to the end of the first semester, or after nine hours of credit, in the *Master of Music* program, students will submit a program of study form to the graduate coordinator.

At least one-third of the required credits in a program must be earned in the area of concentration. At least one-

half (15-16 credits) of the required total credits must be on the 600 level. No more than six credits in workshops (501) may be used to meet minimum requirements for the degree.

## Concentrations

### Conducting

	<b>Credit Hours</b>
<b>Minimum Requirements</b>	
MUS 600. Introduction to Graduate Studies in Music	3
MUS 601. Graduate Seminar in Music History	3
MUS 605. Analytical Studies in Music Literature	3
Music Literature	9
Choral track: •	
MUS 556 and 557. Choral Literature	
Wind track: †	
MUS 564. Symphonic Literature	
MUS 548. History and Literature of Wind Performance	
Orchestral track: †	
MUS 562, 563, 578 or 579. Romantic, 20th-Century, Baroque or Classical Music	
MUS 564. Symphonic Literature	
MUS 551. Composition	2
MUAP 610. Applied Conducting*	6
(three credits each term) A minimum of six credits are to be earned in one of the courses below; any of the other courses may be taken as electives:	
MUAP 610A. Choral Conducting	
MUAP 610B. Orchestral Conducting	
MUAP 610C. Wind Conducting	
MUAP 696. Lecture Recital	2
Approved electives, 500-600 level	4
	32

• Admission to the choral conducting concentration requires, in addition to the School of Music requirements in ear training, written theory and music history, successful completion of entrance examinations in conducting, keyboard skills, sight-singing, and French, Latin, German and Italian diction. Undergraduate or graduate credit in a course in vocal pedagogy must be presented for graduation.

† Admission to the instrumental concentration requires, in addition to the School of Music requirements in ear training, written theory and music history, successful completion of entrance examinations in conducting, keyboard skills and orchestration.

\* Lab in ensemble will be required each semester of enrollment in applied conducting.

### Music Education

	<b>Credit Hours</b>
<b>Minimum Requirements</b>	
MUS 562, 563, 578 or 579. Music Literature	3
MUS 600. Introduction to Graduate Study in Music	3
MUS 601. Graduate Seminar in Music History	3
MUED 670. Principles and Practices in Music Education	3
MUED 671. Research in Music Education	2
Choose one of the following:	5-6
MUED 680 (three credits) and Music education elective courses (two-three credits)	
MUED 700. Thesis (six credits)	
Music courses (MUS) Theory, Arranging, Counterpoint, Analytical, Studies in Music Literature or Music Theory Practices	2-3
Applied music study (MUAP) (may include two credit ensembles)	4
Approved electives •	5-7
	32

• A student may choose an option in elementary, secondary or higher education (eight credits) or may select approved courses in music, music education or applied music, and/or courses from the respective education minors.

## Performance •

	Credit Hours
<b>Minimum Requirements</b>	
MUS 600. Introduction to Graduate Study in Music	3
MUS 601. Graduate Seminar in Music History	3
MUS 605. Analytical Studies in Music Literature	3
MUS 562, 563, 578 or 579. Music Literature	3
MUAP 500 level. Ensembles †	2-4
MUAP 600 level. Applied major †	6-9
MUAP 695 or 696. Recital or Lecture Recital †	1-2
Music electives in theory, literature and pedagogy	3
Free electives, 500-600 level	3-6
	32

• Voice majors must exhibit competence in French, German and Italian diction. Eight credits each of two languages (equivalent to the 101-102 level at JMU) are expected. Voice majors are also required to have completed at least one course in vocal pedagogy for graduation; courses taken at the undergraduate level may meet this requirement.

† Minimum of 11 credits in the applied major, ensemble and recital credits.

## Theory/Composition

	Credit Hours
<b>Minimum Requirements</b>	
MUS 600. Introduction to Graduate Study in Music	3
MUS 601. Graduate Seminar in Music History	3
MUS 605. Analytical Studies in Music Literature	3
MUS 551, 552, 651 or 652. Music Composition •	4-6
MUS 562, 563, 578, 579. Music Literature	3
MUAP courses. Applied Studies and/or Ensemble	2
MUS 700. Thesis in Theory or MUS 697. Composition Project, or MUS 680.	3-6
Electives in music literature, performance, pedagogy and additional composition †	6-9
	32

• Composition majors are required to take the six-hour option.

† Theory-composition majors are required to have completed two courses in counterpoint and one course in electronic music for graduation. Courses taken at the undergraduate level may satisfy this requirement.

## Music Minor

	Credit Hours
<b>Minimum Requirements</b>	
MUS courses. Music courses	3
MUED 600 level. Music Education Courses	3
Electives	6
Music (MUS), Music Education (MUED) and Applied Music (MUAP) courses.	
Workshop courses, 501 and independent studies 680, 690 and 691 not to exceed a total of three credit hours applicable to the minor.	
Applied Music (MUAP) courses, lessons and/or ensembles, not to exceed three credits.	

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## Course Offerings

### Music

MUS 520. Piano Technology. 1-2 credits.

The acoustical and mechanical design and history of the piano theory of tuning and temperaments; procedures and techniques of regulating and voicing pianos. Additional hour of credit for tuning lab.

MUS 540. Jazz Improvisation Laboratory II. 1 credit.

Presents intermediate to advanced improvisation skills in the jazz idiom alone for graduate music majors. Emphasis is on the theoretical analysis of chord progression as well as creative musical application. A research paper dealing with advanced musical improvisation concepts is required. *Prerequisite: Permission of instructor.*

MUS 541. Vocal Arranging. 2 credits.

Arranging for vocal ensembles. Included will be fundamental concepts of orchestration.

MUS 542. Instrumental Arranging. 2 credits.

Arranging for various instrumental ensembles, including fundamental concepts for orchestration.

MUS 543-544. Counterpoint. 2 credits each semester.

Modal and tonal counterpoint. Two, three and four voice forms, florid counterpoint. Elementary imitative techniques. Form analysis. *Prerequisite: MUS 242 or equivalent.*

MUS 548. History and Literature of Wind Performance. 3 credits.

A survey of the history of literature for wind and percussion ensembles from pre-Renaissance to the present. Emphasis on 20th-century literature including works of Husa, Holst, Vaughan Williams, Grainger, Hindemith and Schwantner.

MUS 551-552. Music Composition. 2-3 credits each semester.

Composition in 20th-century styles and techniques. Individualized instruction for theory-composition majors. *Prerequisite: Permission of instructor. Three credit hours for theory-composition majors only.*

MUS 556. Choral Literature I. 3 credits.

A survey of choral literature from the pre-Renaissance through the Classical period including a cappella and accompanied works. Attention will be given to parallel trends in keyboard and instrumental music where applicable.

MUS 557. Choral Literature II. 3 credits.

A survey of choral literature from the Romantic period through the present, including a cappella and accompanied works. Attention will be given to parallel trends in keyboard and instrumental music where applicable.

MUS 560. Piano Literature I. 2 credits.

A survey of Baroque and Classical literature for the piano encompassing solo, concerto and chamber ensemble repertoire. An examination of literature for clavichord, harpsichord and pianoforte.

MUS 562. Music of the Romantic Period. 3 credits.

A study of the Romantic movement in music with reference to its historical background and parallel movement in literature and art. The music of Schubert, Weber, Berlioz, Mendelssohn, Liszt, Chopin, Wagner, Brahms and their contemporaries.

MUS 563. Twentieth-Century Music. 3 credits.

A survey of the trends found in 20th-century music. Impressionism; "New Music" from Satie to Schoenberg, Bartok and Hindemith. The music of contemporary American composers.

MUS 564. Symphonic Literature. 3 credits.

A historical survey of symphonic literature concentrating primarily on major composers and compositions from Baroque to present.

MUS 565. Opera History and Literature. 3 credits.

A survey study of the history of opera. Consideration of the chronological development of all forms of music theater. Emphasis on style characteristics through aural identification.

MUS 567. Solo Vocal Literature. 3 credits.

A survey of specific areas of vocal literature to include the early English air, classic Italian art songs, the German lied, the French art song, contemporary art song, opera and oratorio.

MUS 568. Organ Literature. 2 credits.

A survey of organ literature from 1600 to present. Emphasis will be placed on style characteristics of each historical era with some demonstration at the organ where appropriate.

MUS 569. Church Music. 2 credits.

A course for organists designed to develop the practical skills required of a church musician. Study and performance of hymns, solo and anthem accompaniments, liturgies of major religious denominations and selected church music for the church year. *Prerequisite: Level five organ proficiency.*

MUS 570. Piano Literature II. 2 credits.

A survey of Romantic, Impressionistic and 20th-century literature including solo, chamber ensemble and concerto repertoire, with emphasis on stylistic trends of the 20th century.

MUS 573. Projects in Private Piano Pedagogy. 2 credits.

Topics of special interest to the private piano teacher: overview of current methods, materials and repertoire for teaching beginning, intermediate and advanced students; teaching techniques and strategies; preparing students for college level piano study; business procedures for maintaining a private studio; electronic and computer aids in the piano studio.

MUS 576. Music Theory Practices. 3 credits.

Common-practice music theory with an introduction to 20th-century analysis. Current theory texts are examined.

MUS 577. Vocal Pedagogy. 2 credits.

Designed to acquaint the prospective voice teacher with the techniques of vocal pedagogy, both scientific and empirical. Involves study, practice, observation and completion of a report on resource materials available to the pedagogical researcher.

MUS 578. Music of the Baroque Period. 3 credits.

A survey of music history and literature from 1590-1750. Emphasis will be on the development of styles within a historical framework through study of works by composers from Gabrieli to Handel.

MUS 579. Music of the Classical Period. 3 credits.

A survey of music history and literature from 1750-1827. Emphasis will be on the development of styles within a historical framework.

MUS 598. Selected Topics in Music. 1-4 credits.

Courses in music which are of a topical nature. May be repeated.

MUS 600. Introduction to Graduate Study in Music. 3 credits.

Research as a discipline; current trends and types of research in music. Overview of bibliographical and other resources for music study. Research in bibliography and techniques culminating in a research paper in area of concentration.

MUS 601. Graduate Seminar in Music History. 3 credits.

A topical approach to the study of music history. Topics might include: Music since 1950, Music of Beethoven, Debussy Schoenberg and their followers, History of the Concerto, or any pertinent musical topic. Topic and professor offering the course may change each semester. This course may be repeated when content is different. See Schedule of Classes for current topic and professor.

MUS 605. Analytical Studies in Music. 3 credits.

Analysis of representative works from selected periods. Consideration will be given to melody and rhythm, harmony, texture, and overall form. *Prerequisite: MUS 576 or permission of instructor.*

MUS 651-652. Music Composition. 2-3 credits each semester.

Advanced original composition utilizing various 20th-century styles and techniques. *Prerequisite: Music 551-552. Three credit hours for theory-composition majors only.*

MUS 680. Document in Music Theory. 3 credits.

Final research project for theory/composition majors specializing in theory, who choose three credits of course work and a smaller document rather than the thesis. Follows thesis procedures.

MUS 690. Special Studies in Music. 1-3 credits.

Opportunity for supervised independent study in areas of special interest to the student. May be repeated for credit.

MUS 697. Composition Final Project and Recital. 3 credits.

Project shall be a work for large ensemble. Instrumentation and scope to be determined in consultation with the composition instructor. In addition, students will present a recital of their original works, the majority of which must have been composed during the student's graduate course of study in the School of Music.

MUS 698. Comprehensive Continuance. 1 credit.

Continued preparation in anticipation of the comprehensive examination. Course may be repeated as needed.

MUS 699. Thesis Continuance. 2 credits.

Continued study, research and writing in the area of thesis concentration. Course may be repeated as needed.

MUS 700. Thesis. 6 credits.

This course is graded on a satisfactory/unsatisfactory (S/U) basis.

## Applied Music

Applied music instruction is offered in conducting, piano, voice, organ, harpsichord or an orchestral instrument. Permission to register for applied music must be granted by the appropriate applied division. Students in a performance concentration are expected to continue major study each semester enrolled.

MUAP 500-level. Applied Music. 1-2 credits.

(Minor area and nondegree students.)

One or two 30-minute lessons per week. Two credits available only by permission of the graduate studies coordinator.

MUAP 510. Applied Conducting. 1-2 credits.

(Minor study and elective.)

Applied study, with limited ensemble assignment. May be required of conducting applicants not meeting all requirements for major study. *Prerequisite: permission of instructor.*

MUAP 510A. Choral Conducting.

(See course description for MUAP 510.)

MUAP 510B. Orchestral Conducting.

(See course description for MUAP 510.)

MUAP 510C. Wind Conducting.

(See course description for MUAP 510.)

MUAP 600-level. Applied Music. (Major area for *Master of Music* students.) 1-3 credits.



MUAP 610. Applied Conducting. (Major study.) 3 credits.  
Limited to advanced conductors. Applied study, with assignment to one or more ensembles.

MUAP 610A. Choral Conducting.

(See course description for MUAP 610.) Entrance based on demonstration of advanced competence in conducting and meeting entrance requirements in sightsinging, keyboard skills, and French, Latin, Italian and German diction.

MUAP 610B. Orchestral Conducting.

(See course description for MUAP 610.) Entrance to major instrumental study based on demonstration of advanced competence in conducting and meeting the entrance requirements in keyboard score reading skills and orchestration.

MUAP 610C. Wind Conducting.

(See course description for MUAP 610.) Entrance to major instrumental study based on demonstration of advanced competence in conducting and meeting the entrance requirements in keyboard score reading skills and orchestration.

MUAP 695. Graduate Recital. 1 credit.

A public performance including advanced repertoire in a variety of styles. MUAP 695 or MUAP 696 is required of all students with a major in performance in the *Master of Music* degree program. *Prerequisite: Permission of major applied division.*

MUAP 696. Graduate Lecture Recital. 2 credits.

A public lecture/performance demonstrating knowledge of advance repertoire in a variety of styles. Recital must be accompanied by a formal document. MUAP 695 or MUAP 696 is required of all students with a major in performance in the *Master of Music* degree program. MUAP 696 is required of all majors in conducting. *Prerequisite: Permission of major applied division.*

## Music Ensembles

MUAP 500-level. 1 credit.

Ensembles are required in performance tracks and recommended as electives in other programs. In consultation with the adviser, students may elect the following ensembles, most of which require an audition. May be repeated.

MUAP 535. Chorus  
MUAP 537. Marching Band  
MUAP 540. Chorale  
MUAP 541. Madison Singers  
MUAP 542. Vocal Jazz Choir – Madisionians  
MUAP 543. Opera Theater (1-2 credits)  
MUAP 544. Chamber Orchestra  
MUAP 545. Symphony Orchestra  
MUAP 546. Wind Symphony  
MUAP 547. Jazz Ensemble  
MUAP 548. Jazz Band

MUAP 550. String Ensemble

MUAP 551. Woodwind Ensemble

MUAP 552. Brass Ensemble

MUAP 553. Guitar Ensemble

MUAP 554. Percussion Ensemble

MUAP 556. Flute Choir

MUAP 557. Piano Accompanying and Ensemble

MUAP 559. Keyboard Performance Practicum –Organ

## Music Education

MUED 501. Workshops in Music Education. 1-3 credits.

Designed to provide a variety of workshop experiences; many workshops are particularly appropriate for teachers in elementary and secondary schools. The content of each will be determined by interest and demand.

MUED 570. Marching Band Procedures. 2 credits.

Skills and knowledge needed to organize, administer, plan and teach marching band shows including shows for various competitions, parades, football, basketball and festival events; techniques for developing both marching and playing style through a functional method of fundamental drills.

MUED 571. Jazz and Show Choir Procedures. 2 credits.

Skills and concepts needed to organize, administer, plan, teach and perform in jazz or show choirs will be taught. Techniques of commercial vocal style and choreography for the show choir will be covered.

MUED 598. Selected Topics in Music Education. 1-4 credits.

Courses in music education which are of a topical nature. May be repeated.

MUED 670. Principles and Practices in Music Education. 3 credits.

The foundations underlying music education programs and practices found in the history of music education, philosophy with special emphasis on aesthetics, sociology, social psychology and psychology. Practices in music education are examined from the perspective of these foundation studies.

MUED 671. Research in Music Education. 2 credits.

Understanding the principles and techniques of historical, descriptive, experimental and conceptual research. Planning original research. A thesis proposal is the final class requirement.

MUED 680. Document in Music Education. 3 credits.

Final research project for music education majors who choose three credits of course work and a smaller document, rather than the thesis. Follows thesis procedure.

MUED 690. Special Studies in Music Education. 1-3 credits.

Opportunity for supervised independent study in areas of special interest to the student. May be repeated for credit.

MUED 698. Comprehensive Continuance. 1 credit.

Continued preparation in anticipation of the comprehensive examination. Course may be repeated as needed.

MUED 699. Thesis Continuance. 2 credits.

Continued study, research and writing in the area of thesis concentration. Course may be repeated as needed.

MUED 700. Thesis. 6 credits.

# Psychology

*Dr. Jane S. Halonen, Director*

For information, call (540) 568-6439

[http:// cep.jmu.edu/psychology](http://cep.jmu.edu/psychology)

## Professors

V. Andreoli Mathie, J. Benedict, J. Benson, D. Brown,  
H. Cobb, J. Couch, L. Echterling, D. Erwin, T. Gonzalez,  
J. Grayson, J. Halonen, A. Kahn, J. McKee, J. Presbury,  
R. Scott, M. Stoloff, N. Walker, S. Wise, R. West

## Associate Professors

Baker, Brewster, S. Evans, Gibson, S. Lovell, S. Rogers,  
C. Shealy, A. Stewart, D. Sundre, P. Warner

## Assistant Professors

R. Apple, C. DeMars, W. Evans, K. Haley, C. Huffman,  
T. Gilligan, A. Menard, S. Serdikoff, S. Sivo, R. Staton,  
C. Talley, A. Trice, L. Ward

### Application Dates

#### Assessment and Measurement

Fall Semester: March 1

#### College Student Personnel Administration Program

Fall Semester: February 1

All application forms and supporting materials are due at this time. The program begins reviewing applications February 13 and will give preference to applications received by that date.

#### Combined Clinical, School and Counseling Psychology

Fall Semester: February 1

#### General Psychology

Fall Semester: March 1

All application forms and supporting documents are due at this time. The program begins reviewing completed applications in February.

#### School Counseling and Community Counseling

Summer Session and Fall Semester: February 15

The committee conducts screening interviews during March.

#### School Psychology

Fall Semester: March 1

The committee conducts screening interviews during March. For full consideration, it is strongly recommended that all materials be received by the stated dates for each program.

James Madison University offers seven graduate programs designed for individuals who want to pursue advanced training in psychology and counseling. These programs share the goals of academic enrichment, refinement of research skills, development of applied skills, and personal and professional growth.

## General Psychology

General Psychology (M.A.) 36 credits

## Counseling

Community Counseling (M.A./Ed.S.) 60 credits

School Counseling (M.Ed./Ed.S.) 60 credits

## School Psychology

School Psychology (M.A. and Ed.S.) 78 credits

## Assessment and Measurement

Assessment and Measurement (Psy.D.)

## Student Personnel

College Student Personnel Administration (M.Ed.) 36 credits

## Combined Doctor of Psychology

Clinical, School and Counseling Psychology (Psy.D.)

## General Psychology

The general psychology program provides an opportunity for students to strengthen their research skills and knowledge base in general experimental psychology. Students conduct research in various specialty areas in psychology, in collaboration with faculty. Opportunities are available for students to acquire applied experience through practicum placements. Course work, a research apprenticeship, research roundtable and thesis lead to a Master of Arts degree and help prepare students both for further study in doctoral-level psychology programs and for immediate employment in psychological research settings. The program provides the foundation courses required by most doctoral programs in clinical, industrial/organizational, experimental, biological and quantitative psychology. Graduates of the program often apply to JMU's doctoral program in assessment and measurement. Other graduates have been employed in companies and consulting firms that provide research and survey services.

## Admission Requirements

- Completion of a baccalaureate degree with a satisfactory grade point average
- Undergraduate coursework in psychology, including at least one statistics and one experimental methods course

- Satisfactory scores on both the general and subject area GRE (official score reports required)
- Three letters of recommendation from faculty members familiar with previous academic performance and potential for graduate work
- Transcripts from all undergraduate and graduate programs attended
- Completed application forms, including a personal statement detailing goals for graduate study and beyond, description of research interests and a statement of how the General Psychology program will help you achieve these goals.

### **Master of Arts Degree**

<b>Minimum Requirements •</b>	<b>Credit Hours</b>
Statistics and Measurement	
PSYC 605. Research and Inferential Statistics	3
PSYC 606. Advanced Measurement Theory	3
PSYC 609. Applied Research Methods in Psychology	3
Advanced Principles and Theories	12
Area A (select two of the following):	
PSYC 612. Advanced Personality Theory	
PSYC 614. Advanced Developmental Psychology	
PSYC 615. Advanced Industrial/Organizational Psychology	
PSYC 616. Advanced Social Psychology	
PSYC 622. Advanced Abnormal Psychology	
Area B (select two of the following):	
PSYC 610. Advanced Learning Theories	
PSYC 611. Advanced Comparative Psychology	
PSYC 613. Advanced Cognitive Psychology	
PSYC 617. Advanced History of American Psychology	
PSYC 624. Advanced Physiological Psychology and Psychopharmacology	
Research Project/Thesis	6
PSYC 700. Thesis	
Elective courses (adviser approval required)	9
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• Before the school of psychology recommends students for graduation, they must have a successful review by the Master of Arts in General Psychology Program Committee.

Successful completion of a comprehensive examination, the research round table and research apprenticeship are required prior to enrollment in the first semester of PSYC 700, Thesis. The round table and apprenticeship programs do not carry course credit but expose students to a range of faculty research in psychology. Through the round table and apprenticeship program students are involved in a program of research early in their graduate training which will facilitate the development and completion of the thesis.

Only six credit hours of PSYC 700 may be used to satisfy the Master of Arts program requirements. After enrollment for six credit hours the student must continue to enroll in PSYC 699, Thesis Continuance, until the thesis has been accepted by the student's faculty committee and the Graduate School.

## **School Psychology**

The school psychology program promotes the role of the school psychologist as a developer of human potential. The program prepares students to be interpersonally skilled, data-oriented problem solvers who are able to provide a broad array of psychological services to children. The school psychology program emphasizes an integrated theoretical orientation in understanding children and adolescents as part of a family, school, community and culture. Students acquire skills in psychological assessment, consultation, counseling and applied research.

The program is designed to prepare students for employment in a variety of settings including schools, mental health clinics, rehabilitation agencies and private practice settings. An emphasis is placed on an integrated model of training with a substantial focus on field and practicum experiences.

The first level of the program includes basic psychological foundations and leads to a *Master of Arts* degree (33 credit hours). Successful completion of the master's degree, including passing a comprehensive examination, enables the student to apply for admission to the Educational Specialist level of the program. A second year of course work, in addition to a research project and a 10-month internship leads to the *Educational Specialist* degree (an additional 45 credit hours).

To be admitted to the Educational Specialist level of the school psychology program, students must have completed a master's degree in psychology or a related field. Students who have an appropriate master's degree but who have specific deficiencies can be admitted to the Educational Specialist program provided that these deficiencies are included in the Educational Specialist program of study.

Minimum admission requirements for the *Educational Specialist* degree in school psychology include a 3.5 grade point average and satisfactory review by the School Psychology Program Committee. Students applying to the program with a master's degree from another institution will be required to provide three references as part of the application process and to participate in the interview process.

*Students completing only the master's degree are not eligible for licensure as a school psychologist.* The *Educational Specialist* degree is the entry-level credential in school psychology and leads to eligibility for licensure as a school psychologist by the Virginia Department of Education. After additional supervised experience, students are eligible to sit for the licensure examination given by the state Board of Psychology as school psychologists.

To be recommended for licensure, students must complete all program requirements and score satisfactorily on the National Certification School Psychology Examination, which must be taken during the internship year. Scores must be sent to the program coordinator.

The concentration in school psychology is approved by the Virginia Department of Education and is accredited by the National Council for Accreditation of Teacher Education and the National Association of School Psychologists.

## Admission Requirements

The minimum admission requirements for the school psychology program include

- completion of a baccalaureate degree with a satisfactory grade point average
- 18 hours of undergraduate psychology (behavioral sciences and/or education) courses including statistics
- satisfactory scores on the general GRE (the psychology subject test is not required)
- a successful personal interview with faculty and students to assess abilities, characteristics and readiness for the program
- a brief personal statement detailing career goals
- three letters of recommendation from professors
- transcripts from all undergraduate and graduate programs attended.

Priority will be given to applications received by March 1 for fall admission. Interviews are scheduled in March, and applicants are notified of admission decisions shortly after the interview. Applicants must inform the program coordinator within a reasonable period of time whether they will attend or decline to attend JMU.

## Master of Arts Degree

Minimum Requirements •	Credit Hours
PSYC 525. Role and Function of the School Psychologist	3
PSYC 527. Psychological Foundations of Education	3
PSYC 605. Research and Inferential Statistics	3
PSYC 606. Advanced Measurement Theory	3
PSYC 614. Advanced Developmental Psychology	3
PSYC 626. Advanced Developmental Psychopathology	3
PSYC 661. Counseling Techniques	3
PSYC 674. Individual Intelligence Testing	3
PSYC 695. Practicum in School Psychology	3
PSYC 749. Multicultural Perspectives of Intervention	3
PSYC 777. Psychoeducational Assessment	3
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• Before the school of psychology recommends students for graduation, they must have a successful review by the School Psychology Program Committee.

## Educational Specialist Degree

Minimum Requirements •	Credit Hours
PSYC 609. Applied Research Methods	3
PSYC 750. Consultation and Intervention Techniques	3
PSYC 751. Psychotherapy with Children and Adolescents	3
PSYC 755. Cognitive Behavioral Interventions	3
PSYC 778. Advanced Practicum in School Psychology	6
PSYC 779. Personality Assessment with Children and Adolescents	3
PSYC 790. Internship in School Psychology	9
PSYC 800. Educational Specialist Research Project †	6
PSYC 880. Introduction to Child and Adolescent Neuropsychology	3
SPED 501. Special Education Interventions	3
READ 658. Principles, Practices and Applications Of Reading Assessment	3
	45

• Successful review by members of the School Psychology Committee is required before the student is recommended by the program coordinator to the dean of the College of Education and Psychology for licensure as a school psychologist. Students must complete all program requirements to be recommended for certification or licensure. Certain courses may be waived or substituted with adviser approval.

† Only six credit hours of PSYC 800 may be used to satisfy program requirements for the Educational Specialist degree. If the research project is not completed by the end of the internship year, then the student must continuously enroll (each semester including summers) in PSYC 799. Continuance. The student is required to enroll in PSYC 799 each semester until the project is completed. Continuance credits carry no credit hour production and do not count toward graduate program requirements.

## School Counseling

The school counseling program prepares students to be school counselors in elementary, middle or secondary school settings. Program graduates enter the field with the knowledge and competencies essential to provide quality developmental school counseling services.

The *Educational Specialist* degree in school counseling is in compliance with the 2001 Virginia State Board of Education licensure regulations for school counselors. The school counseling program is accredited by the Council for the Accreditation of Counseling and Related Educational Programs, an affiliate of the American Counseling Association. The program requires the completion of a minimum of 60 credit hours.

The *Master of Education* degree is awarded only after completion of all *Educational Specialist* degree requirements. A comprehensive examination including oral, written and applied components is required prior to internship.

## Admission Requirements

Minimum admissions requirements for entry to the School Counseling Program include the following:

- completion of a baccalaureate degree with a satisfactory grade point average
- satisfactory scores on the general portion of the Graduate Record Examination
- a personal statement
- three completed reference forms from individuals familiar with the student's potential for graduate education
- a minimum of 18 credit hours of undergraduate preparation in education or psychology
- a personal interview and a screening session with the program committee

## Educational Specialist Degree

Minimum Requirements	Credit Hours
<b>Common Core</b>	
Statistics and Measurements	
PSYC 600. Measurement and Statistics	3
PSYC 607. Assessment Procedures in Counseling	3
Principles and Theories of Psychology	
PSYC 614. Advanced Developmental Psychology	3
Research Project/Thesis:	3
Choose one of the following:	
PSYC 800. Educational Specialist Research Project	
PSYC 700. Thesis (Note: Thesis option requires an additional 3 credit hours.)	
<b>Required courses</b>	
PSYC 640. School Counseling	3
PSYC 643. Advanced School Counseling	3
PSYC 660. Counseling Theories	3
PSYC 661. Counseling Techniques	3
PSYC 663. Substance Abuse Counseling	3
PSYC 664. Counseling Process	3
PSYC 665. Group Counseling	3
PSYC 669. Career Development	3
PSYC 695. Practicum in Counseling	3
PSYC 710. Counseling Strategies: Special Topics	3
PSYC 749. Multicultural Perspectives of Intervention	3
PSYC 760. Consultation and Supervision for Counselors	3
PSYC 790. Internship in School Counseling	6
Elective courses (adviser approval required)	6
	60

## College Student Personnel Administration

The *Master of Education* degree in college student personnel administration is designed to provide professional preparation for college, university and community college administrative positions. Preparation for college student personnel careers involves participation in learning experiences designed to provide an understanding of the college student, counseling theories, various collegiate sub-cultures and the nature of higher education as an institution in the United States. The program's link with counseling psychology provides opportunities for personal growth and the development of interpersonal relationship skills.

### Admission Requirements

Minimum admissions requirements for entry to the college student personnel administration program include the following:

- completion of a baccalaureate degree with a satisfactory grade point average
- satisfactory scores on the general portion of the Graduate Record Examination
- a personal statement and resume
- three completed reference forms from individuals familiar with the student's potential for graduate education
- a minimum of 18 credit hours of undergraduate preparation in behavioral sciences
- a personal interview and a screening session with the program committee

### Master of Education Degree

Minimum Requirements	Credit Hours
EDUC 670. American Higher Education	3
PSYC 645. Student Personnel Services	3
PSYC 646. American College Student	3
PSYC 649. Professional Issues in Student Personnel	3
PSYC 650. Organization and Administration of Student Services	3
PSYC 651. Supervision and Consultation Processes in Student Personnel	3
PSYC 660. Counseling Theories	3
PSYC 661. Counseling Techniques	3
PSYC 665. Group Counseling	3
PSYC 695. Field Practicum in Student Personnel Administration	3
Select one of the following:	3
EDUC 630. Inquiry in Education	
PSYC 600. Introduction to Measurement and Statistics	
Select one of the following:	3
PSYC 669. Career Development	
PSYC 680. Independent Study	
PSYC 749. Ethnic Diversity and Sociocultural Issues	

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## Community Counseling

The *Educational Specialist* degree program in community counseling includes the common core courses for the *Master of Arts* in psychology, other courses required for accreditation and licensure, and electives to meet individual needs and interests. The program requires the completion of a minimum of 60 credit hours.

The *Master of Arts* degree in psychology is awarded only after completion of *all Educational Specialist* degree requirements. This program provides the academic and applied training necessary for individuals seeking employment as counselors in community agencies, psychiatric facilities or private practice.

The community counseling program is approved by the Council for the Accreditation of Counseling and Related Educational Programs, an affiliate of the American Counseling Association.

The JMU transcript endorses students as graduates of an accredited program and as being eligible to take the National Board for Certified Counselors examination leading to recognition as a National Certified Counselor. Students also take all courses required for licensure as professional counselors in the Commonwealth of Virginia.

A comprehensive examination including oral, written and applied components is required prior to internship.

### Admission Requirements

Minimum admissions requirements for entry to the community counseling program include the following:

- completion of a baccalaureate degree with a satisfactory grade point average
- satisfactory scores on the general portion of the Graduate Record Examination
- a personal statement
- three completed reference forms from individuals familiar with the student's potential for graduate education
- a minimum of 18 credit hours of undergraduate preparation in psychology or related behavioral sciences
- a personal interview and a screening session with the program committee

### Educational Specialist Degree

Minimum Requirements	Credit Hours
<b>Common Core</b>	
Statistics and Measurements	
PSYC 600. Measurement and Statistics	3
PSYC 607. Assessment Procedures in Counseling	3
Principles and Theories of Psychology	
PSYC 614. Advanced Developmental Psychology	3
PSYC 685. Psychopathology: Diagnosis and Intervention Planning	3
Research Project/Thesis	3
Choose one of the following:	
PSYC 800. Educational Specialist Project	
PSYC 700. Thesis (Note: Thesis option requires an additional 3 credit hours.)	

## Required Courses

PSYC 630. Community Counseling	3
PSYC 660. Counseling Theories	3
PSYC 661. Counseling Techniques	3
PSYC 663. Substance Abuse Counseling	3
PSYC 664. Counseling Process	3
PSYC 665. Group Counseling	3
PSYC 669. Career Development	3
PSYC 695. Practicum in Counseling	3
PSYC 710. Counseling Strategies: Special Topics	3
PSYC 749. Multicultural Perspectives of Intervention	3
PSYC 760. Consultation and Supervision for Counseling	3
PSYC 790. Internship in Community Counseling	6
Elective courses (adviser approval required)	6

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## Doctor of Psychology Degree

### Assessment and Measurement

The *Doctor of Psychology* degree program is designed to meet the expanding accountability, quality assurance and outcome assessment needs of the 21st century. Graduates are prepared for employment as assessment, evaluation and measurement specialists in education, health care, business, government and other related settings. The program emphasizes real-world applications, and experiential research projects are integrated throughout the program.

Course work in the doctoral program covers a broad range of topical areas including the history of assessment and public policy, student development and learning, general measurement and statistics, performance assessment and generalizability theory, structural equation modeling, item response theory, instrument design, artificial intelligence, cognitive psychology, professional communication, and conflict management and resolution. Further, students have the opportunity to gain expertise with computer software for information retrieval from extensive relational databases, test development and item analysis/banking, web development and testing, and statistical analyses. Opportunities for involvement in computer-based testing will also be provided. Doctoral students are involved in ongoing applied institutional assessment projects at the Center for Assessment and Research Studies, and extensive training and experience is derived through practice and internship experiences in a variety of educational, human service and business contexts.

Students entering the doctoral program should demonstrate intermediate statistics and measurement competencies and have completed an empirically based research/evaluation project. Enrollment is limited, and class size is small. To facilitate professional growth and development, students receive continuous feedback throughout the program. As in the clinical, school and counseling program, students enrolled in the assessment and measurement concentration are required to take PSYC 606 and PSYC 608 in addition to completing practicum, internship and dissertation requirements.

### Admissions Requirements

- Completion of an advanced degree (M.A./M.S. or Ed.S.) in psychology, education, statistics or a related field
- General GRE scores (verbal, quantitative and analytic)
- Statement of interest in the program and professional goals
- Three letters of recommendation from professionals familiar with the applicant's academic work and relevant professional experiences
- Transcripts from all undergraduate and graduate programs attended
- A current professional vita or resume
- Representative samples of professional work in evaluation
- Personal interview
- Previous graduate and postgraduate professional experience in assessment-related activities is recommended

### Curriculum

The program outlined below is divided into foundation areas and specific required courses and research experiences. Students will complete course work and demonstrate competency in the foundation and required areas.

In addition, students completing the doctoral dissertation will be required to pay an additional fee for the electronic presentation of their research.

#### Foundations in Psychology Courses

Measurement Theory  
Multivariate Statistics  
Cognitive Psychology/Psychological Foundations in Education  
Social Psychology  
Life Span/College Student Development

#### Required Courses

	Credit Hours
PSYC 770. Assessment and Public Policy	3
PSYC 812. Assessment Methods and Instrument Design	3
PSYC 814. Performance Assessment and Generalizability Theory	3
PSYC 825. Doctoral Seminar (one credit for six semesters)	6
PSYC 830. Structural Equation Modeling	3
PSYC 832. Item Response Theory	3
PSYC 834. Computers and Testing	3
PSYC 855. Assessment Consultation and Practice	3
Electives	6
Professional Communication •	3
<b>Required Research Experiences</b>	
PSYC 878. Doctoral Assessment Practicum	6
PSYC 891. Doctoral Assessment Internship	6
PSYC 900. Doctoral Dissertation	9

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• May be taken in another discipline.

### Combined Program in Clinical, School and Counseling Psychology

The combined doctoral program in clinical, school and counseling psychology is an innovative, applied psychology program that leads to the awarding of the *Doctor of Psychology* degree. The doctoral program is fully accredited by the American Psychological Association and designed to prepare students to be leaders in the provision of comprehensive psychological services to children and families.

It is specifically designed for students possessing advanced graduate degrees and professional experience in applied mental health fields such as child-clinical, school or counseling psychology. Students who graduate from the JMU doctoral program practice in a range of settings including, but not limited to, mental health clinics, child and family agencies, public schools, administrative settings, and private practice settings.

The JMU doctoral program functions on a calendar-year schedule, including summer semesters. Only full-time students are admitted and all students receive a full-time teaching or graduate assistantship that includes tuition.

### Admission Requirements

Admission to the JMU doctoral program requires that applicants:

- have completed an advanced degree (M.A./M.S. or Ed.S.) in clinical, school, or counseling psychology, or a closely related field
- have completed some relevant, postgraduate degree professional experience as a practitioner in an applied area of psychology or counseling
- provide general GRE scores (verbal, quantitative and analytic) and advanced psychology GRE scores (previous GRE scores may be accepted)
- submit a statement of professional goals
- submit three letters of recommendation from professionals familiar with your academic work and relevant professional experiences;
- submit official transcripts from all undergraduate and graduate programs attended
- submit a current professional vita or resume
- submit representative work samples of current professional skills (e.g., test reports, counseling summaries, etc.)

Five to seven full-time students are admitted each year. Priority will be given to application materials received by February 1 in anticipation of Fall admission. Group and individual interviews with both faculty and current students to assess abilities, characteristics and readiness for the program are scheduled in February. All applicants are notified of admission decisions soon after the completion of interviews (no later than March 15). Students offered admission are expected to reply no later than April 15.

### Curriculum

An individualized doctoral plan of study is developed for each student consisting of courses in required psychological foundations as well as courses and field experiences in the doctoral core curriculum. Academic progress is monitored throughout the program and feedback is provided to each student periodically.

The total number of credit hours necessary to complete the program is approximately 115. Previous graduate course work may be accepted to meet required psychological foundations courses. A minimum of 54 credit hours of doctoral core courses, however, must be taken at JMU.

All students must complete a 12-month internship and a scholarly dissertation. Internships must be approved by the American Psychological Association or meet the standards set forth by APA.

In addition, students completing the doctoral dissertation will be required to pay an additional fee (approximately \$55.00) for the electronic presentation of their research.

### Required Psychological Foundations

Students must complete graduate course work and demonstrate competency in the following foundation areas.

#### Psychological Measurement

Psychoeducational Assessment

Personality Assessment with Children and Adolescents

Individual Intelligence/Cognitive Assessment

#### Psychological Interventions

Individual and Group Counseling Techniques

Couple and Family Counseling

Consultation Theory and Application

Psychotherapy with Children and Adolescents

Cognitive Behavioral Interventions

#### Biological Aspects of Behavior

Physiological Psychology and Psychopharmacology

Introduction to Child and Adolescent Neuropsychology

#### Cognitive and Affective Aspects of Behavior

Learning and Cognition

Personality Theories

#### Social Aspects of Behavior

Ethnic Diversity and Sociocultural Issues

Life Span Development

Developmental Psychopathology

#### Research Methodology and Data Analysis

Inferential Statistics/Research Methodology

Applied Research Methods

#### History and Systems of Psychology

History of Psychology

### Doctoral Core Curriculum

Minimum Requirements	Credit Hours
PSYC 864. Advanced Individual Psychotherapy	3
PSYC 680. Independent Study: Research Practicum	2
PSYC 668. Couple and Family Systems	3
PSYC 695. Practicum in College Teaching	3
PSYC 825. Doctoral Seminar in Professional Psychology	8
PSYC 826. Advanced Seminar in Developmental Psychopathology	3
PSYC 852. Advanced Consultation and Supervision	3
PSYC 881. Issues and Techniques in Research and Evaluation	3
PSYC 877. Advanced Seminar in Child and Family Assessment.	3
PSYC 878. Doctoral Practicum in Child and Family Psychological Services	15
PSYC 890. Doctoral Internship in Child and Family Psychological Services (12 months)	6
PSYC 900. Doctoral Dissertation	6

## The Human Development Center

The JMU Human Development Center, an interdisciplinary clinical facility located on campus, serves as the primary clinical training site for students in the psychology graduate programs. The center also houses the Shenandoah Valley Child Development Clinic (a pediatric specialty clinic) and is staffed by clinical teaching faculty from psychology and education, and professionals from the disciplines of psychology, medicine, social work, speech pathology and audiology.

The center offers a wide range of evaluation and intervention services for children, families and adults of the surrounding geographical area. Depending upon the level of training, student clinicians are involved with cases on a continuum from observation to direct service provision.

The center facility is equipped to provide an effective environment for the development of students' clinical skills. Psychology students may serve practicum and internship placements in the center.

### Course Offerings

#### Psychology

PSYC 501. Workshop in Psychology. 1-3 credits.

Designed to provide a study of a particular topic of interest in psychology. *Prerequisite: Permission of department head.*

PSYC 515. Basic Counseling Skills. 3 credits.

A basic counseling skills course designed for human services and mental health professionals without graduate training in counseling and for students from related disciplines who wish to acquire counseling skills.

PSYC 525. Role and Function of the School Psychologist. 3 credits.

Provides an understanding of educational and mental health settings as well as legal and ethical issues and responsibilities with which a school psychologist must deal.

PSYC 527. Psychological Foundations of Education. 3 credits.

Psychological theories and research applied to classroom and school settings.

PSYC 530. The Psychology of Child Abuse and Neglect. 3 credits.

Review of current psychological literature on child abuse and neglect including identification, etiology, treatment, prevention and legal aspects. Family violence issues are also discussed.

PSYC 600. Introduction to Measurement and Statistics. 3 credits.

An introduction to measurement and statistical tools used in conducting research. Specific topics include: reliability and validity; research methods and statistical analysis; quantitative and qualitative methods; needs assessment and program evaluation; use of technology; and legal and ethical issues of research.

PSYC 605. Research and Inferential Statistics. 3 credits.

Provides an understanding of types of research, inferential statistics, research report development, research methodology and implementation, program evaluation, and ethical and legal considerations. *Prerequisite: Permission of the instructor.*

PSYC 606. Advanced Measurement Theory. 3 credits.

Advanced measurement applications of classical test score theory, generalizability measurement theory, scale construction concepts, test bias, standard setting techniques and item response theory. *Prerequisite: PSYC 605.*

PSYC 607. Assessment Procedures in Counseling. 3 credits.

A study of individual and group approaches to assessment and evaluation. Activities include administering, scoring, and interpreting tests of ability, interest, personality, and achievement for both children and adults. Students also assess case studies, perform a self-analysis, and review selected assessment procedures. Computer-assisted assessment and ethical issues are addressed. *Prerequisite: PSYC 600 or permission of instructor.*

PSYC 608. Multivariate Statistical Methods in Psychology. 3 credits.

Continuation of PSYC 605, with emphasis on multivariate analysis, advanced research design and implementation of computerized statistical analysis. *Prerequisite: PSYC 605.*

PSYC 609. Applied Research Methods. 3 credits.

Provides an understanding of applied research methods, including Qualitative Research, Quasi-Experimental designs, and program evaluation. *Prerequisite: PSYC 605, Research and Inferential Statistics.*

PSYC 610. Advanced Learning Theories. 3 credits.

A study of historical and current learning theories. Included is a consideration of research contributions which bear upon the theories.

PSYC 611. Advanced Comparative Psychology. 3 credits

Introduces graduate students to basic concepts, methods and theories in the study of animal behavior. Topics covered include the evolution of behavior, communication, sensory processes, reproductive behavior, parental behavior, sociality, aggression, territoriality and feeding behavior.

PSYC 612. Advanced Personality Theories. 3 credits.

Major theories of personality, including historical and philosophical assumptions underlying them, with a consideration of research stimulated by these theories.

PSYC 613. Advanced Cognitive Psychology. 3 credits

Examines a wide range of human cognitive processes including pattern recognition, attention, memory, language and decision making. The course emphasizes research methods, empirical findings and applications in selected areas.

PSYC 614. Advanced Developmental Psychology. 3 credits.

An overview of the theories, research, and applications relevant to the development of behavior and mental processes throughout the life span.

PSYC 615. Advanced Industrial/Organizational Psychology. 3 credits.

An overview of the theory, topics and issues in the field of industrial/organizational psychology. Consideration of the psychology of human resource decisions, work motivation, job satisfaction, leadership, organizational theory and engineering psychology.

PSYC 616. Advanced Social Psychology. 3 credits.

An advanced study of the research and theory of the way an individual's social behavior is influenced by the behavior and attitudes of other individuals

PSYC 617. History of Psychology. 3 credits.

The history of psychology as depicted through the development of American psychology. Consideration of the history of schools of psychology as well as the historical development of areas such as clinical, physiological, developmental, industrial, cognitive and social psychology.

PSYC 622. Advanced Abnormal Psychology. 3 credits.

A critical review of the issues, research and etiological aspects of the mental disorders, as well as the general concepts used in the area of psychopathology. Topics include models of pathology and wellness, mind and body problems, and interprofessional relationships.

PSYC 624. Advanced Physiological Psychology and

Psychopharmacology. 3 credits.

An analysis of brain/behavior relationships with an emphasis on neurological and biochemical mechanisms. Neuropsychological theory and psychopharmacology will be emphasized.



PSYC 626. Advanced Developmental Psychopathology. 3 credits.  
An overview of child and adolescent behavior disorders and psychopathology with an emphasis on diagnostic and treatment issues.

PSYC 630. Community Counseling. 3 credits.  
An introduction to the history, profession, and practice of community counseling. Specific topics include: intervening with individuals, groups, families and communities; developing and evaluating programs; consulting with other professional helpers; promoting personal and systemic well-being; dealing with diverse clients; and addressing legal, ethical, and professional identity issues.

PSYC 640. School Counseling. 3 credits.  
An introduction to the history, theory, philosophy, principles, organization, and personnel practices of school counseling. Specific topics include; developing and evaluating programs; intervening with individuals, groups, parents and schools; dealing with diverse students; and addressing legal, ethical, and professional identity issues.

PSYC 643. Advanced School Counseling. 3 credits.  
A study of the role of the counselor in elementary, middle, and secondary schools with an emphasis on the function of counseling, consultation and coordination. Techniques and materials used with children, teachers and parents will also be examined. *Prerequisite: PSYC 640 or permission of instructor.*

PSYC 645. Student Personnel Services. 3 credits.  
A detailed study of student services offered in colleges and universities. Legal, ethical and professional identity issues are also examined.

PSYC 646. The American College Student. 3 credits.  
An examination of developmental theory and review of the literature and research related to the American college student.

PSYC 649. Professional Issues in Student Personnel. 3 credits.  
A study of occupational and professional issues related to student services divisions in the American college and university.

PSYC 650. Organization and Administration of Student Services. 3 credits.  
A study of organizational and management theory/practice in higher education. Upon completion of the course, students will have an understanding of the college/university as an organization and the role that student service programs play in the mission of the institution. *Prerequisite: PSYC 645.*

PSYC 651. Supervision and Consultation Processes in Student Personnel. 3 credits.  
This course will focus on the processes of supervision and consultation as they apply to student personnel management. Opportunities will be provided to make practical application of management knowledge and organization theories to personnel issues. *Prerequisite: PSYC 650.*

PSYC 660. Counseling Theories. 3 credits.  
A study of the philosophy and principles of various schools of counseling, and the techniques employed in the counseling process by practitioners in each of these schools.

PSYC 661. Counseling Techniques. 3 credits.  
An opportunity to learn fundamental counseling skills that form the foundations of successful counseling practice. Students develop these skills through experimental learning activities, directed reading assignments, discussions and lectures, practice in small groups, and participation in critiques of videotaped microcounseling sessions. *Prerequisite: Permission of instructor.*

PSYC 663. Substance Abuse Counseling. 3 credits.  
A study of substance abuse to include related personal, social and physiological factors, and methods of rehabilitation and counseling for the chemically dependent. *Prerequisite: PSYC 515 or equivalent.*

PSYC 664. Counseling Process. 3 credits.  
An experiential study of the relationship between counselor and client. Explores the phases of relationship form initiation to termination, including predictable crises and issues which normally arise. Analysis of resistance, transference and counter-transference, dependency, and termination issues will be discussed. Attention will also be given to gender and diversity issues. *Prerequisites: PSYC 660, PSYC 661 or permission of instructor.*

PSYC 665. Group Counseling. 3 credits.  
A study of the theories, techniques, dynamics, process and practice of group counseling. Students become members of a laboratory group and also conduct research into issues of group counseling. Each student pairs with a partner, creates an intervention plan, and facilitates the group process. *Prerequisites: PSYC 660 and 661 or permission of instructor.*

PSYC 668. Couple and Family Systems. 3 credits.  
A study of the dynamics of couple and family living, focusing on social change, social stratification, mate selection, marriage, divorce, child rearing, sexuality and individual behavior, and its effect on the family structure. *Prerequisite: Permission of instructor.*

PSYC 669. Career Development. 3 credits.  
The impact of career choice throughout the life span is explored. Vocational theories and a variety of approaches to career decision-making will be introduced. Several career-related assessment instruments will be used to help students develop skills in administration and interpretation.

PSYC 674. Individual Intelligence Testing. 3 credits.  
Students develop proficiency with administration, interpretation and reporting of individual intelligence tests (the WISC III, WAIS, WPPSI and Binet) and instruments used in nondiscriminatory multicultural assessment. *Prerequisite: Permission of instructor.*

PSYC 680. Independent Study. 1-3 credits.  
An opportunity for independent study or research in an area of special interest. *Prerequisite: A written plan must be submitted and approved by a faculty supervisor, the student's program coordinator and the department head prior to registration.*

PSYC 685. Psychopathology: Diagnosis and Intervention Planning. 3 credits.  
Training and practice in the following: making reliable and valid diagnoses of mental disorders; appropriately addressing the ethical and cultural issues involved; performing collaborative diagnostic interviews; participating in effective case conferences; and planning interventions to achieve therapeutic goals. *Prerequisite: PSYC 600, PSYC 661 or permission of instructor.*

PSYC 690. Proseminar. 3 credits.  
This course introduces the beginning graduate student to areas such as developmental psychology, personality, abnormal and social psychology.

PSYC 695. Practicum. 1-6 credits.  
Provides a variety of supervised field, laboratory or school experiences. Course will be graded on an S/U basis. *Prerequisite: Permission of instructor.*

PSYC 698. Comprehensive Continuance. 1 credit.  
Continued preparation in anticipation of the comprehensive examination. Course may be repeated as needed.

PSYC 699. Thesis Continuance. 2 credits.  
Continued study, research and writing in the area of thesis concentration. (This course does not count towards fulfilling the required hours for the degree; it may be repeated as needed. Students who have registered for six hours of thesis credit but have not finished the thesis must be enrolled in this course each semester until they complete the thesis.)

PSYC 700. Thesis. 6 credits.

This course is graded on a satisfactory/unsatisfactory (S/U) basis.

PSYC 710. Counseling Strategies: Special Topics. 1 credit

Training and practice in the use of a specific counseling method.

*Prerequisite: PSYC 660, PSYC 661 or permission of instructor.*

PSYC 710A. Counseling Strategies. Crisis Intervention.1 credit.

Training and practice in crisis intervention with individuals, groups, and communities. Specific techniques include suicide prevention, telephone intervention, psychiatric emergency work, outreach strategies, traumatic stress debriefing, and disaster intervention. *Prerequisite: PSYC 660, PSYC 661 or permission of instructor.*

PSYC 710B. Counseling Strategies: Brief Counseling.1 credit.

An introduction to time-limited counseling. Solution-Focused, Narrative, and Constructivist approaches to counseling are discussed. Students practice the micro-skills involved in goal-directed, efficient counseling strategies. *Prerequisite: PSYC 660, PSYC 661 or permission of instructor.*

PSYC 710C. Counseling Strategies: Theory and Techniques of Play Therapy. 1 credit.

Overview of the principles of play therapy. Training and practice in basic play therapy techniques. *Prerequisite: PSYC 660, PSYC 661 or permission of instructor.*

PSYC 710D. Counseling Strategies: Relaxation and Hypnotic Techniques. 1 credit.

Training and practice in the use of relaxation and hypnotic techniques to reduce anxiety, manage pain, envision goals, enhance personal efficacy, and facilitate behavioral change. Specific topics include mind/body interaction, indications and counter-indications, and ethical issues. *Prerequisite: PSYC 660, PSYC 661 or permission of instructor.*

PSYC 748. Gender Issues in Counseling. 3 credits.

An exploration of gender issues as they relate to counseling theories and techniques. The social construction of gender roles, as well as the gendered nature of society, are discussed. Implications for working with women, men, gay/lesbian/bisexual, and transgendered individuals are addressed. *Prerequisite: PSYC 660, PSYC 661 or permission of instructor.*

PSYC 749. Multicultural Perspectives of Intervention. 3 credits.

Offers a cognitive and experiential study of sociological and psychological variables, such as race, gender, and socioeconomic status, that influence the professional helping relationship. Culturally relevant models of counseling theory and practice are presented. *Prerequisite: Permission of instructor.*

PSYC 750. Consultation and Intervention Techniques. 3 credits.

Provides the knowledge and skills necessary to engage in consultation and systems level intervention within educational and mental health settings.

PSYC 751. Psychotherapy with Children and Adolescents. 3 credits.

Theoretical and cognitive bases for understanding frequently used therapeutic strategies and techniques. Specific sections will focus on general practices and procedures in psychotherapy, and on therapeutic strategies for children, adolescents and families. *Prerequisite: Permission of instructor.*

PSYC 752. Theory and Practice of Play Therapy.3 credits.

An introduction to the historical and contemporary context of play therapy including an overview of play therapy theories and methods. Examination of cultural influences, ethical issues, and outcome research in play therapy. *Prerequisite: PSYC 660, PSYC 661 or permission of instructor.*

PSYC 755. Cognitive Behavioral Interventions. 3 credits.

An overview of the theoretical and applied aspects of operant behavior modification and cognitive behavior therapy. The course focuses on applications with children, adolescents, adults and their families in a variety of settings with particular emphasis on cognitive restructuring techniques and brief therapy models.

PSYC 760. Consultation and supervision for Counselors. 3 credits.

Provides students with the knowledge and skills necessary to engage in consultation, negotiation/mediation, and systems-level intervention in mental health and education settings. The course includes an introduction to concepts, processes, and styles of supervision. It offers students the opportunity to gain experience in providing supervision to other counselors in training. *Prerequisite: PSYC 660, PSYC 661, PSYC 664 or permission of instructor.*

PSYC 768. Couple and Family Counseling. 3 credits.

A study of the various approaches to couple and family counseling, focusing on theory, techniques and research that relate to the counseling process. *Prerequisites: PSYC 668 and 661, or permission of instructor.*

PSYC 770. Assessment and Public Policy. 3 credits.

Delineates and compares the history and role of assessment, accountability, and quality assurance to the governance, funding, and purposes of higher education; describes an implementation process of assessment for educational programs and services. *Prerequisite: PSYC 600.*

PSYC 777. Psychoeducational Assessment Techniques. 3 credits.

An advanced laboratory course for students in school psychology. Covers evaluation of skills and abilities which relate to psycholinguistics, learning disabilities, psychomotor function, and achievement disorders and instruments used in nondiscriminatory multicultural assessment. Enrollment is limited to allow individual instruction and supervision. *Prerequisites: PSYC 674 or permission of instructor.*

PSYC 778. Advanced Practicum. 1-6 credits.

Provides a variety of supervised field experiences in schools and other settings. The student may re-enroll in this course for different types of practicum experiences. Course is graded on an S/U basis. *Prerequisites: Permission of instructor.*

PSYC 779. Personality Assessment with Children and Adolescents. 3 credits.

Advanced students achieve basic understanding and competency in the administration and interpretation of personality assessment procedures most frequently used in school psychology including instruments used in nondiscriminatory multicultural assessment. Enrollment is limited to allow individualized instruction and supervision. *Prerequisites: PSYC 606, 674, 777 or permission of instructor.*

PSYC 790. Internship. 3 or 6 credits.

Provides a student with a supervised field experience. Students should contact their program coordinator for specifics concerning the internship experience. Course will be graded on an S/U basis. *Prerequisite: Permission of program coordinator.*

PSYC 799. Educational Specialist Research Project Continuance. 2 credits.

Continued study, research and writing in the area of Educational Specialist research project. Course may be repeated as needed but does not count toward fulfilling the required hours for the degree. (Students who have registered for the maximum hours of PSYC 800, Educational Specialist Research Project, but have not finished the project must be enrolled in this course each semester until they complete the research project.)

PSYC 800. Educational Specialist Research Project. 3 credits.

Opportunity for advanced applied research in an area of special interest to a school psychology or community counseling student in an Educational Specialist program. Specific course requirements are listed in the separate research project guidelines for school psychology and community counseling students. Course is graded on an S/U basis. Successful completion of the research project fulfills the comprehensive examination requirement for the School of Psychology Educational Specialist Degree. *Prerequisite: Permission of program coordinator.*

PSYC 812. Assessment Methods and Instrument Design. 3 credits. This course covers reliability and validity issues associated with instrument and methodology design. Delineation of goals and objectives, assessment purposes, test and task specification, item/task development, pilot, review, and maintenance procedures will be applied. Consideration of multifaceted validity and validation issues will be stressed throughout the process. *Prerequisites: PSYC 605, 606 and 608.*

PSYC 814. Performance Assessment and Generalizability Theory. 3 credits.

Development, implementation and maintenance of performance assessment procedures will be covered. Introduces generalizability theory and its applications to performance assessment development and estimation of reliability. Specification and estimation of systematic error variation and methods for controlling error and creating efficient assessment strategies will be applied to performance assessment for absolute and relative decision applications. *Prerequisite: PSYC 606.*

PSYC 822. Assessment in Early Childhood Special Education. 3 credits. (Cross-listed as SPED 622.)

This course provides the student with exposure to screening assessment and diagnostic procedures utilized in the identification of handicapped students ages 0-5. A case study approach to diagnostics is emphasized. Family assessment is also an integral part of the course. *Prerequisite: Permission of the instructor and SPED 621 or equivalent.*

PSYC 825. Doctoral Seminar in Professional Psychology. 1-3 credits. This course covers issues and content designed to foster the development of the student's identity as a doctoral-level professional psychologist. Course is graded on S/U basis.

PSYC 826. Advanced Seminar in Developmental Psychopathology. 3 credits.

This course reviews at the doctoral level current research and theory regarding childhood disorders, their origins, their consequences for life span development, and the factors that mitigate against them. Specific topics include theories of development and psychopathology; taxonomy and diagnosis; longitudinal studies of continuity and change; development of depression, aggression, and anxiety; and resilience.

PSYC 830. Structural Equation Modeling. 3 credits.

Exploratory and confirmatory factor analysis, path analysis and relevant aspects of measurement theory are introduced. In this context, several mathematical and technical issues about model fitting are presented: the statistical requirements for a model, estimators and estimation, model evaluation, model modification, software use, and pertinent troubleshooting strategies. *Prerequisites: PSYC 606 and 608.*

PSYC 832. Item Response Theory. 3 credits.

This examines the use of Item Response Theory models for test construction and ability estimation. Models for tests with dichotomous and polytomous items will be covered. Other topics for discussion include advantages and disadvantages of IRT relative to Classical Test Theory, the detection of differential item functioning (or item bias), and the role of IRT in Computer Adaptive Testing. *Prerequisite: PSYC 606.*

PSYC 834. Computers and Testing. 3 credits.

This course focuses on the computer as a medium for the administration and scoring of achievement tests. Strengths and limitations of current computerized testing methods are addressed, as well as future issues and challenges. Topics to be discussed include linear and adaptive tests, problem simulations, performance assessment, and expert systems. *Prerequisites: PSYC 606, and 832.*

PSYC 852. Advanced Consultation and Supervision. 3 credits.

An advanced course in models of consultation; supervision, and leadership/management. *Prerequisite: Permission of instructor.*

PSYC 855. Assessment Consultation and Practice. 3 credits.

This course provides guided opportunities for supervised application of sets of assessment skills and competencies with the development of professional self as an assessment practitioner. Students join with center faculty members to engage in ongoing assessment projects concerning at-risk students, alumni surveys, academic undergraduate and graduate degree programs, general education, academic program reviews, and distance education programs. Ethics will be emphasized, spanning the continua of assessment practice from establishing consultation relationships, assessment design, data collection, analysis, maintenance and archiving of data, and report writing to presentation of findings.

PSYC 864. Advanced Individual Psychotherapy. 3 credits.

This class is a laboratory experience which explores the phases of the therapeutic relationship between therapist and client. The framework for conceptualizing psychotherapy will be the integration of the interpersonal approach with a multi-model, systems orientation. Topics such as diversity, resistance, transference, and countertransference will be discussed.

PSYC 877. Advanced Seminar In Child and Family Assessment. 3 credits.

This doctoral-level course reviews advanced methods for the assessment of children and families, and focuses on the development of a case formulation that integrates test findings and informs intervention efforts.

PSYC 878. Doctoral Practicum. 1-6 credits.

Provides a variety of supervised field experiences for advanced, applied psychology doctoral students. Students may enroll for several types of practicum experiences (e.g., clinic, school, HDC). Course is graded on an S/U basis. *Prerequisite: Permission of instructor.*

PSYC 879. Assessment Practicum. 3 credits.

This course provides guided opportunities for supervised application of sets of assessment skills and competencies with the development of professional self as an assessment practitioner. Students join with center faculty members to engage in ongoing assessment projects concerning at-risk students, alumni surveys, academic undergraduate and graduate degree programs, general education, academic program reviews, and distance education programs. Ethics will be emphasized, spanning the continua of assessment practice from establishing consultation relationships, assessment design, data collection and analysis, maintenance and archiving of data, and report writing to presentation of findings. Course will be graded on an S/U basis.

PSYC 880. Introduction to Child and Adolescent Neuropsychology. 3 credits.

This course will include a review of central nervous system (CNS) anatomy and physiology as it pertains to brain/behavior relationships and neuropsychological assessment. Emphasis is on providing a foundation for more intensive further evaluation and remediation within the school setting of children and adolescents surviving traumatic brain injury. *Prerequisite: Permission of the instructor.*

PSYC 881. Issues and Techniques in Research and Evaluation. 3 credits.

Opportunity for applied research and/or program evaluation in areas of special interest. Students will participate as full members of a research team and assist with the design of a study. This course will serve as a basis for preparing students to develop the proposal for their doctoral research project. Course is graded on an S/U basis. *Prerequisites: PSYC 605 and PSYC 608 or equivalent, or permission of the instructor.*

PSYC 889. Advanced Personality Assessment. 3 credits.

Critical review of theory, practice and research with regard to personality assessment techniques. Emphasis will be placed on teaching the Rorschach and MMPI, and using these and other assessment procedures to answer specific diagnostic questions (e.g., depression, psychosis, personality disorders, etc.). *Prerequisite: PSYC 779, or equivalent.*

PSYC 890. Doctoral Internship. 6 credits.

Supervised internship in a school and/or community agency approved by the Program Coordinator. Designed to meet APA internship guidelines. Course is graded on an S/U basis. *Prerequisite: Completion of all course work and permission of program committee.*

PSYC 891. Doctoral Assessment Internship.

3 credits (can be taken for a second semester)

Supervised assessment internship in a higher education, kindergarten through 12th-grade, business or health care setting that has been approved by the program coordinator. Typically involves the design and implementation of assessment strategies to meet the needs of the institution or agency. Course will be graded on an S/U basis. *Prerequisites: Completion of all doctoral program course work, PSYC 878 and permission of the program committee.*

PSYC 899. Dissertation Continuance. 2 credits.

Continued study, research and writing in the area of dissertation concentration. (This course does not count toward fulfilling the required hours for the degree; it may be repeated as needed. Students who have registered for six hours of dissertation credit but have not finished the dissertation must be enrolled in this course each semester, including summer, until they complete the dissertation.)

PSYC 900. Doctoral Dissertation. 6-12 credits.

Provides advanced research required of all doctoral candidates. Course is graded on an S/U basis. *Prerequisites: completion of all course work and permission of program coordinator.*

# Public Administration

Dr. B. Douglas Skelley, Graduate Coordinator

For information, call (540) 568-6149

[http:// www.jmu.edu/polisci/mpa](http://www.jmu.edu/polisci/mpa)

## Professors

M. Doss, A. Eksterowicz, R. Roberts, D. Skelley

## Assistant Professors

E. Grabrah-Aidoo, V. Sulfaro

## Master of Public Administration

The *Master of Public Administration* degree is the recognized professional degree in public administration. It enhances the administrative knowledge and skills of those already employed as professionals in government nonprofit organizations and firms that deal extensively with government. The *MPA* program, with its internship component, also prepares “pre-service” students, especially those with undergraduate degrees that have public sector applicability.

The *Master of Public Administration* degree requires 36 credit-hours of course work and 6 hours of internship. The internship (six credit hours) is not required of “in-service” students, those presently employed or recently employed in a substantive position in the public sector. Applicants with strong undergraduate preparation that complements or duplicates elements of the program may be exempted from certain courses or have some of the required credits waived. In no case, however, may a student take less than 30 credit hours of academic course work, exclusive of the internship. After careful review of the student’s record, the program coordinator will determine if courses or credits will be waived.

The curriculum consists of a common component and a concentration. The common curriculum enables students to function effectively in the public and non-profit sectors. Students will learn concepts of organization, public management, personnel program and policy evaluation, budgeting and relevant law. There are three defined concentrations: health administration, public sector communication, and criminal justice. In addition, students, in consultation with the coordinator, may design an individualized concentration. The individualized concentration may draw upon courses in other graduate programs at JMU, and graduate courses offered by other accredited institutions including on-line courses. Students should be aware that the Graduate School policy allows no more than nine credit hours of transferred course work to count toward a student’s graduate degree. Any transfer courses require the approval of the public administration coordinator.

Students who do not have a significant professional work background in administration/management are expected to complete a supervised internship with a public or non-profit agency. The internship will support the student’s concentration.

A student admitted to the program must seek advice from the program coordinator before registering for classes. The coordinator will also assist the student in planning the degree program, taking into account the nature of the student’s undergraduate preparation and professional experience, if any.

The Graduate Record Examination or the Graduate Management Admission Test is required of all applicants for the *Master of Public Administration* program.

Successful performance on a comprehensive examination is required of all candidates for the *MPA* degree. Information concerning the comprehensive examination can be obtained from the coordinator of the public administration program.

Students in the *Master of Education* program may minor in political science by completing 12 hours of political science or public administration courses.

## Master of Public Administration Degree

	Credit Hours
<b>Core Curriculum</b>	
POSC 505. Seminar in American Government	3
PUAD 515. Legal Environment of Public Administration	3
PUAD 605. Research Design for Policy Evaluation	3
PUAD 506. Program Evaluation in Public Administration	3
PUAD 620 Seminar in the Politics of the Administrative Process	3
PUAD 625. Seminar in Public Management Issues	3
PUAD 641. Public Budgeting	3
MGT 635. Personnel Administration	3
PUAD 696. Internship in Public Administration	6
	30
Concentration (choose one)	
<b>Health Care Administration Concentration</b>	
HTH 659. Health Care Environment	3
HTH 560 Health Economics	3
HTH 661. Financial Administration of Health Service Organizations	3
HTH 669. Modern Health Care Administration	3
	12
<b>Public Sector Communication Concentration</b>	
Choose one of two:	3
TSC 510. Seminar in Technical and Scientific Communication	
TSC 520. Technical and Scientific Communication for Nonnative Speakers of English	
TSC 530. Research Methods in Technical and Scientific Professional Communication	3
TSC 540. Technical and Scientific Edition	3
Choose one of three:	3
TSC 625. Government Writing	
TSC 640. Proposal and Grant Writing	
TSC 650. Electronic and Online Publication	

<b>Criminal Justice Concentration</b>	
PUAD 510 Administration in Criminal Justice	3
Choose two of four:	6
PSYC 515. Basic Counseling Skills	
AHRD 540. Instructional Technology Used In Adult Education/HRD	
AHRD 600. Instructional Design and Development in Adult Education/HRD	
IDS 607. Management Information Systems	
PUAD/SOCI 582 Seminar in Criminal Justice	3
	12
<b>Individualized Concentration</b>	
Four graduate courses selected in consultation with the public administration coordinator	12
	12
 Total Credits	 42

## Master of Public Administration

### Five Year Degree

The James Madison University Political Science Department offers a Master of Public Administration (MPA) degree to prepare students for careers with national, state and local governments or with nonprofit organizations. The MPA requires 30 graduate credits in public administration, political science, and management plus a four course (12 credit hour) graduate concentration in another field.

Defined graduate concentrations are available in criminal justice, communication, and health administration. Alternatively, students may, with the approval of the MPA Coordinator, design their own concentrations drawing upon the graduate resources of James Madison University or other accredited universities. (The student must secure approval for courses at other accredited universities from the MPA Coordinator and the Graduate Dean.) A student may obtain permission to transfer a maximum of nine hours of graduate course work completed at another institution of higher learning towards meeting the requirements of the MPA program. The MPA typically requires two years of graduate study for completion.

The Five Year Plan offers a program for the JMU undergraduate that, if the student performs satisfactorily, leads to the MPA in five years—four undergraduate years and one graduate year of study.

A student interested in the Five Year MPA should meet with the MPA Coordinator early in the sophomore year. At this time, the student and the MPA Coordinator will adopt a plan of study for the next three years. The plan will include a schedule of public administration courses and the choice of a concentration. The concentration should be tailored to support the student's career goals. The plan is tentative and may be modified by the student with the permission of the MPA Coordinator. The student should meet with the MPA Coordinator periodically to review the plan and modify as appropriate.

Students entering the Five Year MPA program are not required to major in public administration as undergraduates: they may major in any field. However, they are required to complete the public administration courses listed below while undergraduates and will be required to complete 6-9 hours of reserve graduate credit (see below) while still undergraduates. Students wishing to continue in the program must earn a 3.0 (B) grade point average or

In addition, the student must take one or more courses in the student's chosen area of concentration, earning a 3.0 grade point average or better. The student should do sufficient work in the area of concentration to qualify for graduate courses in that chosen area. Graduate work done in the area of concentration may include 500 level courses subject to the constraint that at least half of the student's total course load should be numbered 600 or higher.

The student must formally apply for acceptance into the graduate MPA program during the spring of his or her junior year. A Five Year program student must begin the program in the fall semester. The student must submit a transcript of all courses taken at James Madison University and other colleges and universities. The student must also submit Graduate Record Examination (GRE) scores for review. The student may also submit recommendations from two James Madison University faculty members. The MPA admissions committee will not act on an application until the committee receives a completed application. The completed application includes grades of B or above for all undergraduate courses required for acceptance into the Five Year program.

Acceptance into the Five Year program is conditional. The student must receive a B or higher on the three reserve graduate courses taken during the student's fourth year of study.

### Five Year Plan

<b>Core Curriculum</b>	<b>Credit Hours</b>
<b>Freshman Year</b>	
POSC 101. Advisory in Public Affairs	1
<b>Freshman or Sophomore Year</b>	
POSC 225. U.S. Government	4
PUAD 265. Public Administration	3
<b>Sophomore Year</b>	
POSC 295. Research Methods	4
<b>Sophomore or Junior Year</b>	
POSC 302. State and Local Government	3
PUAD 381. Public Budgeting	3
<b>Junior Year</b>	
MGT 365: Personnel Administration	3
<b>Junior or Senior Year</b>	
POSC 405: Seminar in American Government	3
POSC 415: Legal Environment of Public Administration	3
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<b>Concentration</b>	<b>3 or more*</b>
* The student should do sufficient work in the area of concentration to qualify for graduate courses in that chosen area (See above).	
Total Credits	29 or more

## Reserve Graduate Courses

The student will need to complete three graduate courses for reserve credit in the senior year. The reserve graduate credits do not count toward the undergraduate degree or toward any undergraduate major or minor: they are held in reserve for the graduate MPA. Thus the student must meet all requirements for the undergraduate degree without counting these courses.

Written permission to take reserve graduate courses must be obtained from the MPA Coordinator and the Graduate Dean prior to enrollment. The student should apply for permission during the junior year. The student should complete the following three courses:

### Reserve Graduate Credit

#### Fall of Senior Year

PUAD 620. Seminar in the Politics of the Administrative Process 3

#### Spring of Senior Year

PUAD 641. Public Budgeting 3

PUAD 625. Seminar in Public Management Issues 3

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Total Reserve Graduate Credits 9

#### Fall of Fifth or Graduate Year

PUAD 605. Research Design for Policy Evaluation 3

MGT 635. Personnel Administration 3

Two graduate courses in the student's concentration 6

#### Spring of Fifth or Graduate Year

PUAD 606: Program Evaluation in Public Administration 3

Two graduate courses in the student's concentration 6

Take MPA comprehensive examination

#### Summer of Fifth or Graduate Year

PUAD 696: Internship in Public Administration 6

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Total Fifth Year Graduate Credit 21

### Financial Assistance

A limited number of graduate assistantships are available in a competitive basis for the fifth year. However, students with assistantships are limited in the number of credits taken per semester and ordinarily will not be able to complete the program in five years.

All relevant regulations in the undergraduate and graduate catalogs are applicable.

### Further Information:

Please contact:

Dr. Robert Roberts: robertrn@jmu.edu

MPA Coordinator

Dr. Glen Hastedt: bentdc@jmu.edu

Chair, Political Science Department

Web Site: <http://www.jmu.edu/polisci/mpa/outline.htm>

MSC 1101

James Madison University

Harrisonburg, VA 28807

(540) 568-6149 or 3737

## Course Offerings

### Public Administration

PUAD 510. Administration of Justice. 3 credits.

Study of the major concepts of management in criminal justice and public safety agencies emphasizing functional and structural approaches with a view toward ongoing systematic reform and modernization. (Credits may not be earned in both PUAD 410 and PUAD 510.)

PUAD 515. Legal Environment of Public Administration. 3 credits.

Study of the constraints imposed on public administrators by law and judicial oversight. The course will address federal and state constitutions, judicial review, organizational and personal legal accountability, personnel law, and procurement law.

PUAD/SOCI 582. Seminar in Criminal Justice. 3 credits.

A research-oriented seminar which provides a comprehensive view of the discipline of criminal justice and various approaches to research. The student will complete a major research project.

PUAD 583. Emerging Issues in Public Administration. 3 credits.

A detailed study of an emerging issue in public administration. The course will examine an area of new or emerging interest in the profession of public administration. The course may be repeated for credit with a change in subject matter. *Prerequisite: Permission of instructor.*

PUAD 605. Research Design for Policy Evaluation. 3 credits.

Application of social science methodology to program and policy evaluation. Research design and data collection, as well as planning techniques, are covered.

PUAD 606. Program Evaluation in Public Administration. 3 credits.

Application of systematic analysis to program and policy evaluation. Students will complete a computer-assisted research project. *Prerequisite: PUAD 605 or permission of instructor.*

PUAD 620. Seminar in the Politics of the Administrative Process. 3 credits.

A study of public administration as part of the political process. Includes administration and politics, organizational structure and behavior, and patterns of management and decision making. Serves as the introductory course to the *Master of Public Administration* program.

PUAD 625. Seminar in Public Management Issues. 3 credits.

A study of contemporary issues and problems facing the public manager. Contemporary management systems, techniques and devices will be discussed and case studies will be extensively used.

PUAD 641. Public Budgeting. 3 credits.

Public budgeting practices and skills with an emphasis on the federal budget process. Topics include politics of the budget process, budget types and analytic techniques for budgeting.

PUAD 680. Reading and Research. 3 credits.

Under faculty supervision, independent study of a specialized area of public administration. *Prerequisite: Permission of instructor.*

PUAD 683. Special Topics in Public Administration. 3 credits.

A detailed study of a selected area in public administration. May be repeated with a change in subject matter. *Prerequisite: Permission of instructor.*

PUAD 696. Internship in Public Administration. 3-6 credits.

Supervised professional administrative experience with a public or nonprofit agency. Credit for 200 or 400 hours of work is three or six credits. Assigned readings, reports and a research paper are required. *Prerequisite: Permission of instructor.*

PUAD 698. Comprehensive Continuance. 1 credit.

Continued preparation in anticipation of the comprehensive examination. Course may be repeated as needed.

## **Political Science**

POSC 505. Seminar in American Government. 3 credits.

A study of the American political system from the administrative perspective. Includes readings and research on democratic values, the bureaucracy's relationship to Congress, the bureaucracy's relationship to the presidency, federal government organization, federalism and the policy outputs of the national government.

POSC 561/HIST 561. Seminar in Marxist-Leninist Theory. 3 credits.

A study of the most significant ideas concerning politics, society, economics and philosophy which have shaped Communism and Marxist varieties of socialism.

POSC 680. Reading and Research. 3 credits.

This course offers the individual student the opportunity for reading and research under faculty supervision in the areas of public and nonprofit administration that are of special interest to the student.



# Institute of Technical and Scientific Communication

Dr. Alice I. Philbin, Director

For information, call (540) 568-8018

<http://cal.jmu.edu/tsc>

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## Professors

M. Hawthorne, A. Philbin

## Assistant Professors

R. Munger, E. Pass, M. Zerbe

## Institute Fellows

E. Gumnior, W. Voige

Through a blend of course offerings and internship programs, the *Master of Arts* and *Master of Science* programs in technical and scientific communication seek to provide students with communication skills and training that will enable them to build productive careers in industry or academia. They also introduce students to the most current communication technologies used to produce documents of professional quality not only during their studies at James Madison University but also throughout their careers. Finally, students learn the kinds of communication, analytical and reasoning skills that will allow them to become leaders in their fields.

The specific goals of the *Master of Arts* and *Master of Science* degrees are to help students to

- define what effective communication means in technical and scientific environments
- enhance their understanding of how and why communication works
- learn how to identify and eliminate barriers to effective communication
- improve the efficiency and effectiveness of their managing communication
- develop research skills
- create for themselves a cognate area of study within the scientific or technical field in which they intend to work as professional technical communicators.

To achieve these goals, the programs combine work in theory, writing, text design, and analysis of communication systems and contexts to help students to acquire the knowledge and skills needed to begin careers in technical or scientific communication. The programs emphasize scholarly, humanistic and social scientific perspectives on the function and application of technical and scientific communication. Consequently, the programs provide students with not only the knowledge and skills required for careers in industry, business or government but also the research skills and communication theory that will prepare them for doctoral study in communication and rhetoric. The long-range goal of the *Master of Arts* and *Master of Science* degrees, then, is to enable program graduates to grow as professionals and, ultimately, to contribute to the developing field of technical and scientific communication.

While studies in both programs provide students with a sound foundation in writing, editing and document production, the *Master of Arts* degree typically attracts students with undergraduate work centered in the humanities. Although these students often supplement their TSC degree plan with courses in the sciences, they are primarily interested in gaining extensive knowledge and practice in writing and editing skills that are not tied to a single technical or scientific field but, rather, are applicable to multiple technical or scientific areas.

Conversely, the *Master of Science* degree plan of study typically proves attractive to students who want to complement their undergraduate degrees in the sciences with advanced training in communication within their fields. Such complementary training in technical and scientific communication enables *Master of Science* graduates not only to perform more effectively as technicians or scientists but also to move laterally into writing, editing or production positions or vertically into management positions.

Degree candidates must successfully complete a minimum of 36 credit hours of graduate course work, which includes a minimum of two semesters of course work completed at JMU. Students work with department advisers to design a program that fits their unique educational needs and career aspirations. Depending on their backgrounds and options they might choose to pursue while in the degree program, students may decide to take course work beyond the required 36 hours to obtain additional knowledge or skills in specialized areas. For example, students may choose to take extra course work to enhance their skills in communication technologies or to deepen their academic training in the technical or scientific content areas in which they intend to work as professional writers or editors.

## Degree Requirements

Students in the *Master of Arts* or *Master of Science* program must successfully complete three core courses (nine credit hours), a technical communication internship (three credit hours) and six credit hours of thesis hours.

Students seeking a *Master of Arts* degree must also complete 18 credit hours of TSC elective courses.

Students seeking a *Master of Science* degree must also complete 9 credit hours in an approved technical or scientific cognate discipline and 9 credit hours of TSC elective courses.

At least half of the student's elective credit hours must come from course work at the 600 level. Up to six of those hours may be TSC 700, Thesis. Students may take courses at the 700 level to satisfy the remainder of their electives requirement. Students who have obtained substantial work-world experience in designing, writing or producing documentation in technical or scientific fields may request credit for and waiver of course work, the internship or thesis.

### Cognate Disciplines

To be competitive in many of today's scientific or technical disciplines, technical communicators must possess substantial knowledge of the scientific or technical field in which they are working. Through the TSC *Master of Science* program, students have the opportunity to gain that scientific or technical background while refining their skills as technical communicators.

*Master of Science* candidates must successfully complete at least 9 credit hours of course work at the graduate level in an approved technical or scientific cognate discipline: biology, chemistry, communication sciences and disorders, computer science, dietetics, geography, geology, health sciences, integrated science and technology, kinesiology, mathematics, medical technology, nursing, physics, or psychology. *Master of Arts* candidates are also encouraged to gain competence in a technical or scientific area before entering the professions. The advanced proficiency gained by the student in the selected cognate area will complement the student's education in TSC course work.

For approval to begin study in a chosen cognate discipline, *Master of Science* students should already possess a Bachelor of Science or comparable work-world experience in the proposed technical or scientific field and seek approval to enroll in cognate course work from the CD department and the director of the TSC Institute. Students who want to take course work in a CD that does not currently offer graduate studies may do so through independent studies with graduate faculty in the chosen field, distance learning with graduate programs at other accredited colleges or universities or graduate courses available through the College of Integrated Science and Technology. Independent studies with faculty in a CD department must be approved by the head of that department and by the TSC director. When transferring credit from other universities or receiving studies through distance learning, students should remember that the Graduate School allows up to nine credit hours of transferred course work to count toward a student's graduate degree at JMU.

### Thesis

Degree candidates have two options for satisfying the thesis requirement for the *Master of Arts* or *Master of Science* degree:

- complete a traditional research-based master's thesis on a technical communication topic
- complete a practicum that results in a work-world document (e.g., an online or bound computer tutorial, a user manual or a procedures manual)

Apart from directing the candidate in his or her planning, writing and producing the thesis, the thesis committee is responsible for ensuring that the candidate fully understands the departmental and university requirements of these before he or she can become eligible for graduation.

### Master of Arts

<b>Course Requirements</b>	<b>Credit Hours</b>
Choose one of the following:	3
TSC 510. Seminar in Technical and Scientific Communication	
TSC 520. Technical and Scientific Communication for Nonnative Speakers of English	
TSC 530. Research Methods in Technical and Scientific Professional Communication	3
TSC 540. Technical and Scientific Editing	3
TSC 695. Internship in Technical and Scientific Communication	3
Thesis or Practicum	6
TSC 700. Thesis	
Choose at least six of the following:	18
TSC 545. Ethical and Legal Issues in Technical and Scientific Professional Communication	
TSC 550. Organizational Communication	
TSC 555. Managerial Communication	
TSC 560. Scientific Rhetoric	
TSC 570. Rhetorical Theory: Classical Through Renaissance	
TSC 580. Rhetorical Theory: Enlightenment through Contemporary	
TSC 590. Intercultural Technical Communication	
TSC 610. Publication Management	
TSC 615. Document Design	
TSC 620. Science Writing	
TSC 625. Government Writing	
TSC 630. Legal Writing	
TSC 635. Medical Writing	
TSC 640. Proposal and Grant Writing	
TSC 645. Documentation of Computer Technologies	
TSC 650. Electronic and Online Publication	
TSC 655. Electronic Graphic Design	
TSC 670. Teaching Technical and Scientific Communication	
TSC 680. Readings in Technical and Scientific Communication	
TSC 690. Special Issues in Technical and Scientific Communication	

# Master of Science

<b>Course Requirements</b>	<b>Credit Hours</b>
Choose one of the following:	3
TSC 510. Seminar in Technical and Scientific Communication	
TSC 520. Technical and Scientific Communication for Nonnative Speakers of English	
TSC 530. Research Methods in Technical and Scientific Professional Communication	3
TSC 540. Technical and Scientific Editing	3
TSC 695. Internship in Technical and Scientific Communication	3
Thesis or Practicum	6
TSC 700. Thesis	
Cognate discipline courses •	9
Choose at least three of the following:	9
TSC 545. Ethical and Legal Issues in Technical and Scientific Professional Communication	
TSC 550. Organizational Communication	
TSC 555. Managerial Communication	
TSC 560. Scientific Rhetoric	
TSC 570. Rhetorical Theory: Classical Through Renaissance	
TSC 580. Rhetorical Theory: Enlightenment through Contemporary	
TSC 590. Intercultural Technical Communication	
TSC 610. Publication Management	
TSC 615. Document Design	
TSC 620. Science Writing	
TSC 625. Government Writing	
TSC 630. Legal Writing	
TSC 635. Medical Writing	
TSC 640. Proposal and Grant Writing	
TSC 645. Documentation of Computer Technologies	
TSC 650. Electronic and Online Publication	
TSC 655. Electronic Graphic Design	
TSC 670. Teaching Technical and Scientific Communication	
TSC 680. Readings in Technical and Scientific Communication	
TSC 690. Special Issues in Technical and Scientific Communication	

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• Master of Science candidates must choose a cognate discipline from the following: biology, chemistry, communication sciences and disorders, computer science, dietetics, geography, geology, health sciences, integrated science and technology, kinesiology, mathematics, medical technology, nursing, physics, or psychology.

## Admission Requirements

In addition to satisfying all admission requirements of the JMU Graduate School, applicants must submit to the director of the TSC institute an application dossier that includes the following documents:

- A background and goals statement that explains how the *Master of Arts* or *Master of Science* program relates to the applicant's prior experience and how it fits into his or her long-range professional goals.
- Three letters of recommendation from people who can comment on the applicant's academic preparation and professional experience.
- 20 to 30 pages of writing samples from academia or the professions.

Nonnative speakers of English must take the Test of English as a Foreign Language and receive a score of at least 550. Applicants may use the letters of recommendation and writing samples to support an application for financial aid.

Admission may begin in either the fall or spring semester. To receive full consideration for admission into the programs as well as for financial aid, students should submit their application packages to the Graduate School by May 31 for fall semester and August 31 for spring semester.

Application forms for admission and assistantship are available from the dean of the Graduate School, James Madison University.

## Language Requirement

The *Master of Arts* and *Master of Science* programs require that the candidate demonstrate graduate-level proficiency in foreign language, statistics or computer programming in one of following ways:

- completing the second year of a college course in a modern foreign language with a grade of "C" or above, or completion of the foreign language placement exam administered by the Department of Foreign Languages and literatures with a placement into the junior level of the language.
- completing an approved graduate statistics or computer programming course (or equivalent) with a grade of "B" or better.
- receiving a waiver from the department of its foreign language examination or the required statistics-computing course work based on the student's extensive language background in one of those areas.

A student should state in his or her plan of study the means by which he or she has already satisfied or plans to satisfy the language requirement. A degree candidate must complete the language requirement before taking the comprehensive exams.

## Admission to Candidacy

Before enrolling in second-semester courses, students must submit to their graduate advisers a plan of study that identifies the focus of their study and the specific courses that they intend to complete toward that focus of study. When applying for admission to candidacy, *Master of Arts* and *Master of Science* students must have

- completed all formal course work toward the degree, as required by the program and guided by the student's plan of study
- formed a thesis (or practicum) committee
- received the thesis committee's formal approval of the thesis proposal
- satisfied the language requirement
- passed the comprehensive examination
- passed the oral defense of the thesis

After having received candidacy approval, the student may complete his or her thesis and then submit it to his or her thesis committee.

## Course Offerings

### Institute of Technical and Scientific Communication

TSC 510. Seminar in Technical and Scientific Communication. 3 credits.

A foundations course. The study of the theories and history of technical and scientific communication and its major figures and issues. Introduces students to foundational texts in the field.

TSC 520. Technical and Scientific Communication for Nonnative Speakers of English. 3 credits.

Study of theory, history and research in the field as well as extensive practice in designing, writing, revising and producing documents central to technical communication, including technical summaries, definitions, mechanism descriptions, process or procedure descriptions, proposals, reports and manuals. Emphasizes common problems confronted by technical communicators who are not native speakers of English, including organization, style, paragraphing, grammar, usage, punctuation and idiomatic language.

TSC 530. Research Methods in Technical and Scientific Communication. 3 credits.

Advanced study of research methodology used in technical and scientific communication, covering techniques for collecting information or data through primary and secondary research. Emphasizes extended bibliographic research through projects that employ conventional bound texts as well as electronic texts, including CD-ROM and the Internet.

TSC 540. Technical and Scientific Editing. 3 credits.

Advanced study of and practice in the central editorial duties of managing a document through the editorial process, including establishing the need, purpose and scope of a document; developing levels of edit; copyediting; substantive editing; determining document design; editing graphic aids; collaborating with authors; and proofreading. *Prerequisite: TSC 530 or permission of instructor.*

TSC 545. Ethical and Legal Issues in Technical and Scientific Communication. 3 credits.

Advanced study of the ethical and legal issues confronted by technical communicators in a range of fields. Examines the role of ethics in the field, the nexus of ethics and the law, ethical theories and critical thinking in moral reasoning, falsification of information or data in written or graphic form, ownership of information, confidentiality, copyright and trademark laws, conflicts of interest, and causes of unethical behavior. *Prerequisite: TSC 530 or permission of instructor.*

TSC 550. Organizational Communication. 3 credits.

Advanced study of the structure of communication in organizations by exploring formal and informal communication systems in government, industry and business. Examines the role of communication in the social construction of organizations with hierarchical and nontraditional structures. *Prerequisite: TSC 530 or permission of instructor.*

TSC 555. Managerial Communication. 3 credits.

Advanced study of how managers communicate in organizations by examining the various forms, contexts and functions of managerial written and verbal communication. Emphasizes the role of communication in management and the rhetorical guidelines followed by effective managers to design, write, revise and produce clear, concise and persuasive documents. *Prerequisite: TSC 530 or permission of instructor.*

TSC 560. Scientific Rhetoric. 3 credits.

Study of how writers and editors in technical and scientific communication structure language in communicating scientific knowledge and in presenting and defending a position. Examines theoretical approaches to the uses of language in science and technology within specialized disciplines, industrial organizations, and social and cultural settings as well as critical approaches to the works of figures such as Isaac Newton, Charles Darwin, James D. Watson, Francis Crick and Stephen Jay Gould. *Prerequisite: TSC 530 or permission of instructor.*

TSC 570. Rhetorical Theory: Classical through Renaissance. 3 credits. Study of classical rhetoric with an emphasis on the use of language as a means of winning the assent sympathy or cooperation of an audience. Examines the rhetorical theories of figures such as Gorgias, Isocrates, Plato, Aristotle, Cicero, Quintilian and Saint Augustine. *Prerequisite: TSC 530 or permission of instructor.*

TSC 580. Rhetorical Theory: Enlightenment through Contemporary. 3 credits.

Study of modern rhetoric with an emphasis on the use of language as a means of generating knowledge and of understanding, establishing and maintaining human communities. The course examines the rhetorical theories of figures such as Francis Bacon, George Campbell, Richard Whately, Kenneth Burke, C. Perelman, L. Olbrechts-Tyteca and Michel Foucault. *Prerequisite: TSC 530 or permission of instructor.*

TSC 590. Intercultural Technical and Scientific Communication. 3 credits.

Study of technical and scientific communication in a variety of cultural and international settings and contexts. Emphasizes strategies for understanding and developing analytical skills needed to collaborate with or communicate to people with varied racial, ethnic or cultural backgrounds in both domestic and international settings. *Prerequisite: TSC 530 or permission of instructor.*

TSC 610. Publication Management. 3 credits.

Advanced study of the management and editorial policy of academic and professional publications. Examines such managerial and editorial responsibilities as defining editorial policy, choosing a management hierarchy, defining management roles, reviewing and editing submissions for publication, and collaborating with authors. *Prerequisites: TSC 530 and TSC 540 or permission of instructor.*

TSC 615. Document Design. 3 credits.

Advanced study of the document production process, including such design and production processes as creating publication designs, determining publication format and layout for a range of documents (e.g., brochures, newsletters, journals, and books), manipulating text and graphics using desktop publishing software, proofreading galley and page proofs, and submitting final drafts through electronic prepress to printer. *Prerequisites: TSC 530 and TSC 540 or permission of instructor.*

TSC 620. Science Writing. 3 credits.

Advanced writing course that examines the writing, editing and producing of scientific documents including manuals, research reports, conference papers and journal articles. Emphasizes the process of submitting manuscripts for publication to professional and academic science journals, magazines and newspapers and also reviews methods for creating finished, publishable articles about new research, theories, projects, trends and personalities in science and technology. *Prerequisites: TSC 530 and TSC 540 or permission of instructor.*

TSC 625. Government Writing. 3 credits.

Advanced study of writing genres from a variety of fields within government. Examines the purposes, audiences and formats unique to government publications. Directs students in writing original and editing existing government documents. *Prerequisites: TSC 530 and TSC 540 or permission of instructor.*

TSC 630. Legal Writing. 3 credits.

Advanced study of central components of legal writing such as legal analysis, representation of facts and evidence, reasoning, logic, and argumentation. Addresses such key rhetorical elements of legal documents as clarity and conciseness of style, level of diction, jargon, passive voice and errors in person. *Prerequisites: TSC 530 and TSC 540 or permission of instructor.*

TSC 635. Medical Writing. 3 credits.

Advanced study of the theory and practice of writing in medical/health-related fields. Examines the kinds of documentation written about medical practices for nontechnical audiences (patients and their families). Emphasizes communication between medical professionals and patients. *Prerequisites: TSC 530 and TSC 540 or permission of instructor.*

TSC 640. Proposal and Grant Writing. 3 credits.

Advanced study of the planning and writing of proposals and grants with emphasis on research proposals and grants seeking funding from industry and government. Covers key proposal components including the executive summary, purpose and scope, problem definition, need, methodology, project feasibility, facility requirements, personnel qualifications, cost, and proposal presentation. *Prerequisites: TSC 530 and TSC 540 or permission of instructor.*

TSC 645. Documentation of Computer Technologies. 3 credits.

Advanced study of theory and practice in designing, writing and producing computer documentation for end users. Emphasizes documentation design and production, online documentation, usability testing, and writing of user's guide for computer hardware and software. *Prerequisites: TSC 530 and TSC 540 or permission of instructor.*

TSC 650. Electronic and Online Publication. 3 credits.

Advanced study of electronic and online publications, including World Wide Web pages, electronic newsletters and magazines, and online help. Emphasizes principles in designing, writing and producing publications using such current authoring tools as the hypertext mark-up language, HTML. *Prerequisites: TSC 530 and TSC 540 or permission of instructor.*

TSC 655. Electronic Graphic Design. 3 credits.

Advanced study of the theoretical and practical use of computer graphics as a form of visual communication in scientific or technical documents. Examines topics such as visual perception, design theory, formatted text and graphics, color and design concepts, animation, and video. Emphasizes the development of technical skills in manipulating electronically generated text and graphics. *Prerequisites: TSC 530 and TSC 540 or permission of instructor.*

TSC 670. Teaching Technical and Scientific Communication.

3 credits.

Preparation of TSC teaching assistants in rhetorical theory and teaching methodologies. Emphasizes pedagogical strategies central to teaching effective written and oral communication in the field and provides practice in course development and assessment under the guidance of a faculty mentor in actual course situations. Required of all teaching assistants before their first semester teaching. *Prerequisites: TSC 530, TSC 540 and permission of instructor.*

TSC 680. Readings in Technical and Scientific Communication.

3 credits.

Faculty-supervised reading, research and writing on advanced technical and scientific communication projects not covered in regularly scheduled courses. *Prerequisites: TSC 530, TSC 540, permission of instructor, and completion of 18 or more credit hours in the major.* May be repeated with different content and permission of director.

TSC 690. Special Issues in Technical and Scientific

Communication. 3 credits.

Advanced writing and research in a variety of technical communication genres, including government writing, medical writing, legal writing, and proposal and grant writing. Examines special and timely issues currently being explored in technical and scientific communication not addressed in sufficient depth in regularly scheduled TSC courses. *Prerequisites: TSC 530 and TSC 540.* May be repeated with different course content and permission of director.

TSC 695. Internship in Technical and Scientific Communication.

3 credits.

Work-world experience within business, industry, government or academia in technical and scientific communication. Designed to allow students to incorporate field experience with TSC course work and to observe communication processes and apply effective written, interpersonal and public communication skills. *Prerequisites: TSC 530, TSC 540 and permission of internship coordinator.* May not be repeated.

TSC 699. Thesis Continuance. 2 credits.

Individual reading, research and writing associated with completion of major's practicum portfolio. Directed by the chair of the student's thesis committee and required for graduation. *Prerequisites: TSC 530, TSC 540 and permission of thesis committee director.* Students who have registered for six hours of thesis credit but have not finished the thesis must be enrolled in this course each semester, including summers, until the thesis is completed. This course is graded on a satisfactory/unsatisfactory (S/U) basis.

TSC 700. Thesis. 6 credits.

Individual reading, research and writing associated with completion of major's practicum or thesis. Supervised by the director of the student's thesis committee. Student must complete six hours of thesis research to graduate. *Prerequisites: TSC 530, TSC 540 and permission of thesis committee director.* Credit hours may be taken over one or two semesters.

# Nonmajor Graduate Courses

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The following departments do not offer graduate major programs. However, they do offer graduate courses which are designed to broaden a student's knowledge and are appropriate for use as electives for those pursuing the Master of Education degree in a specific discipline. Interested students should consult directly with the department or school involved.

## Course Offerings

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### Center for Geographic Information Science

*Dr. Joesph D. Eney, Department Head*

GEOG 501. Topics in Geography. 1-3 credits.

A course providing study of specific topics in geography or workshop experiences relating to recent developments in the teaching of geography. May be repeated for credit as course content changes.

### Economics

ECON501. Workshop in Economics. 3 credits

Provides detailed study of economics topics. Designed primarily for elementary and secondary teachers. Prerequisite: Permission of instructor. *May be repeated for credit when content is different.* [Normally offered in summer session. See summer Schedule of Classes.]

### Mathematics

*Dr. David C. Carothers, Department Head*

MATH 501. Workshop in Mathematics. 1-3 credits.

Topics in modern elementary mathematics which are of interest primarily to intermediate and secondary mathematics teachers. May not be used to satisfy minor requirements in mathematics. May be repeated for credit when course content changes.

MATH 522. Statistics for Researchers. 3 credits.

Introduction to statistics and statistical methods, including descriptive techniques, normal distribution, tests of hypotheses, confidence intervals, regression and analysis of variance. Does not satisfy requirements for the minor in mathematics of the *Master of Education* degree.

MATH 585. Selected Topics I. 3 credits

Study of selected topics not otherwise covered in the regular offerings of the department. May be repeated for credit when course content changes.

MATH 685. Selected Topics II. 3 credits.

An in-depth study of selected topics not otherwise covered in the regular offerings of the department. May be repeated for credit when course content changes.

### Speech Communication

*Dr. Eva M. McMahan, Director*

COMM 680. Reading and Research. 3 credits.

Opportunity for directed reading and research in areas of professional interest and goals. Must be done in a declared field of study. Investigation research and reporting. *Prerequisite: Permission of director.*

### Physics

*John R. Gordon, Department Head*

PHYS 501. Workshop in Physics. 1-3 credits.

Concentrated study in particular areas of physics.

PHYS 510. Topics in Theoretical Physics. 3 credits.

Study at an advanced level of a specific area of theoretical physics (such as advanced mechanics, electrodynamics, quantum mechanics or mathematical physics). Topics will be selected according to student needs and interests, and staff availability. May be repeated for up to nine credits.

PHYS 515. Topics in Experimental Physics. 3 credits.

Study at an advanced level of a specific area of experimental physics (such as optics, electronics or nuclear physics). Topics will be selected according to student needs and interests and staff availability. May be repeated for up to nine credits.

### Science

SCI 501. Workshop in the Teaching of Science. 3 credits.

A course providing workshop experiences relating to recent developments in the teaching of science in the schools. Course title will vary with discipline. Course may be repeated when content changes and may only be used by departments which do not have graduate-level science offerings. This course may not be used as transfer credit.

### Sociology and Anthropology

*Dr. Mary Lou Wylie, Department Head*

ANTH 500. Anthropological Research. 3 credits.

This course studies techniques and procedures of anthropological field research and data interpretation. Each student participates in research in progress under direct professional supervision.

ANTH 544. Graduate Work in Field Archaeology. 3-8 credits.

This course is directed at providing graduate level students with the opportunity to apply advanced procedures of archaeology in a field situation. Efforts will be on the development and implementation of archaeological research designs. Historic and prehistoric interests are accommodated.

ANTH 550. Archaeological Site Science. 4 credits.

This course is a survey of the factors affecting the preservation of archaeological sites and artifacts before, during and after excavation. Field and laboratory situations will offer students immediate practical experience.

SOCI 680. Reading and Research. 3 credits.

Opportunity is offered for reading and research in the areas of sociology which are of special interest to the student. *Prerequisite: Approval of department head.*

## Theater

*William J. Buck, Director*

THEA 501. Teachers' Workshop in Theater. 3 credits. (Summer.)

An intensive study of the teaching and practice of theater, specifically in intermediate and secondary schools. Opportunities for practical work within summer productions offered in the school.

THEA 540. Seminar in Theater. 3 credits.

Studies of topics in academic and professional theater. Emphasis on research methods unique to theater studies. Consideration of topics in both theoretical and practical aspects of theater.

THEA 585. American Theater History. 3 credits.

Study and analysis of the American theater experience as presented in the dramatic literature of the country. Emphasis on basic American themes. Consideration of playwrights and performers significant to the development of American theater.

THEA 588. Experimental Theater. 3 credits.

Study of avant-garde theater. Emphasis on motivating and guiding advanced students to a higher degree of aesthetic appreciation. Consideration of the relationship of experimental theater to the traditional theater. *Prerequisite: Permission of instructor.*

# Administration Organizations

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# The Graduate Faculty

Graduate faculty listed below are based on academic review as of spring 2000. Due to publication restrictions, promotions occurring after that date will not be included until the following catalog.

**Linwood H. Rose**, President, Associate Professor.

B.A. Virginia Polytechnic Institute and State University; M.S., University of Tennessee; EdD., University of Virginia

**Ronald E. Carrier**, Chancellor, Professor of Economics.

B.S., East Tennessee State University; M.S., Ph.D., University of Illinois.

**Charles Abzug**, Associate Professor of Computer Science.

Ph.D., New York Medical College.

**Elizabeth S. Adams**, Associate Professor of Computer Science.

D.S. in Computer Science, The George Washington University.

**Ehsan Ahmed**, Professor of Economics.

B.A., Punjab University, Lahore; M.A., Government College, Lahore; M.A., Roosevelt University; Ph.D., Michigan State University.

**Joseph D. Albert**, Professor of Finance and Business Law.

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**Violet L. Allain**, Professor of Secondary Education and School Administration.

B.A., Northeastern Illinois University; M.A., Ph.D., The Ohio State University.

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B. Math., B.A., University of Waterloo; M.A., Ph.D., University of North Carolina.

**Kevin Apple**, Assistant Professor of Psychology.

B.A., M.S., Ph.D., Ohio University.

**J. Christopher Arndt**, Associate Professor of History.

B.A., Gettysburg College; M.A., Auburn University; Ph.D., Florida State University.

**Kathleen G. Arthur**, Professor of Art.

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**Robert C. Ashby**, Associate Professor of Music.

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**Kenneth D. Bahn**, Professor of Marketing.

B.S., M.S., California State University; Ph.D., University of Utah.

**Suzanne C. Baker**, Associate Professor of Psychology.

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**Dabney A. Bankert**, Assistant Professor of English.

B.S., Ph.D., University of Illinois at Urbana-Champaign.

**Nicholas W. Bankson**, Professor of Speech Pathology and Audiology.

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**Charles P. Baril**, Professor of Accounting.

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**Clinton W. Bennett**, Professor of Speech Pathology.

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**A. Jerry Benson**, Professor of Psychology.

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**Vicki Berneking**, Professor of Music.

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**David H. Bernstein**, Associate Professor of Computer Science.

Ph.D., University of Pennsylvania.

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- Robert E. Koslow**, Professor of Kinesiology and Health Sciences.  
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- Ann M. Leonard**, Professor of Education and Psychology.  
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- Barbara Jeanne Lewis**, Professor of Art.  
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- Solange A. Lopes-Murphy**, Assistant Professor of Education.  
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