The JMU Graduate School was established in 1954, when the State Board of Education authorized the university to offer programs leading to the Master of Science in Education degree. In October 2001, the Graduate School and the Office of Continuing Education joined to form the College of Graduate and Professional Programs.

The College of Graduate and Professional Programs is authorized to offer graduate programs leading to master’s degrees, Educational Specialist degrees, Doctor of Audiology degrees, Doctor of Philosophy degrees and Doctor of Psychology degrees.

Mission

It is the mission of the College of Graduate and Professional Programs to support, facilitate and promote excellence in lifelong education through graduate programs of distinction, innovative continuing education programs, and a diverse student body.

The mission of the College of Graduate and Professional Programs is in concert with the overall mission of the university, which states,

We are committed to preparing students to be educated and enlightened citizens who will lead productive and meaningful lives.
### Fall Semester 2005

**August 29, Monday**
Classes meet as scheduled.

**September 16, Friday**
Last day to withdraw from the university with cancellation of tuition charges and refund.

**September 8, Thursday**
Graduate Council Meeting

**October**
Graduate Education Month

**October 14, Friday**
First block courses end.

**October 17, Monday**
Second block courses begin.

**October 13, Thursday**
Graduate Education Information Fair

**October 20, Thursday**
Graduate Council Meeting

**October 21, Friday**
Last day to submit an application for a degree if graduation requirements are to be met in December 2005.

First semester holiday. Classes do not meet.

October 28-29, Friday-Saturday

Homecoming

October 31, Monday

Registration begins for 2006 spring semester.

November 1, Tuesday

First block course grades due in the Office of the Registrar.

November 10, Thursday

Graduate Council Meeting

November 23, Wednesday

Comprehensive examination results due to the College of Graduate and Professional Programs.

Thanksgiving vacation begins and residence halls close 8 a.m.

November 28, Monday

Classes resume.

Last day for students to submit work to faculty for 2005 spring semester and 2005 summer session “incomplete” grades.

December 2, Friday

Thesis/Dissertation/Practicum due to the College of Graduate and Professional Programs.

December 8, Thursday

Graduate Council Meeting

December 9, Friday
Last day of classes.

Last day for faculty to turn in removal of “incomplete” grades for 2005 spring semester and 2005 summer session to the Office of the Registrar.

December 12-16, Monday-Friday

Final examinations

December 16, Friday

Deadline for completion of course work for December graduates.

December 17, Saturday

Graduation. Commencement exercises 10 a.m., Convocation Center.

Residence halls close 3 p.m. for graduating seniors.

Dining Services closes and fall meal plans end 10 a.m. for graduating seniors.

Spring Semester 2006

January 9, Monday

Classes meet as scheduled.

January 12, Thursday

Graduate Council Meeting

January 16, Monday

Martin Luther King Jr. Day

Classes do not meet.

January 27, Friday

Last day to withdraw from the university with cancellation of tuition charges and refund.

February 9, Thursday

Graduate Council Meeting
February 14, Tuesday
Last day to submit an application for a degree if graduation requirements are to be met in May 2006.
Student Assessment/Faculty Assistance (no classes 8 a.m.-4 p.m.)
Evening classes (those beginning 4 p.m. or later) meet as scheduled.

February 28, Tuesday
Third block courses end.

March 2, Thursday
Graduate Council Meeting

March 3, Friday
Dining Services closes 2 p.m. Residence halls close at 5 p.m.

March 6-10, Monday-Friday
Spring Break. Classes do not meet.

March 12, Sunday
Residence halls open noon. Dining Services opens at 5 p.m.

March 13, Monday
Classes resume. Fourth block courses begin.

March 15, Wednesday
Third block course grades due in the Office of the Registrar.

March 15, Wednesday
James Madison Day

March 20, Monday
Registration for 2006 summer session begins.
March 27, Monday
Non-degree seeking students registration for 2006 summer session begins.

April 4, Tuesday
Registration begins for 2006 fall semester.

April 13, Thursday
Graduate Council Meeting

April 14, Friday
Last day for students to submit work to faculty for 2005 fall semester "incomplete" grades.

April 19, Wednesday
Comprehensive examination results due to the College of Graduate and Professional Programs.
Thesis/Dissertation/Practicum due to the College of Graduate and Professional Programs.

April 28, Friday
Last day of classes.
Last day for faculty to turn in removal of "incomplete" grades for 2005 fall semester to the Office of the Registrar.

May 1-5, Monday-Friday
Final examinations

May 5, Friday
Deadline for completion of course work for May graduates.

May 6, Saturday
Graduation. Commencement exercises.

May 19, Friday
Graduate Council Retreat

**Graduate 2006 Summer Session**

**Twelve-Week Term**

**May 15, Monday**
Registration and fee payment. Classes meet as scheduled.

**May 29, Monday**
Holiday. Classes do not meet.

**July 4, Tuesday**
Holiday. Classes do not meet.

**August 4, Friday**
Final examinations for twelve-week term.
Deadline for completion of course work for summer graduates.

**Eight-Week Term**

**June 12, Monday**
Registration and fee payment. Classes meet as scheduled.

**July 4, Tuesday**
Holiday. Classes do not meet.

**August 4, Friday**
Final examinations for eight-week term.
Deadline for completion of course work for summer graduates.

**First Six-Week Term**

**May 15, Monday**
Course changes and registration. Classes meet as scheduled.

May 29, Monday

Holiday. Classes do not meet.

June 23, Friday

Final examinations for six-week term.

Second Six-Week Term

June 26, Monday

Course changes and registration. Classes meet as scheduled.

July 4, Tuesday

Holiday. Classes do not meet.

August 4, Friday

Final examinations for six-week term.

Deadline for completion of course work for summer graduation.

First Four-Week Term

May 15, Monday

Registration and fee payment. Classes meet as scheduled.

May 29, Monday

Holiday. Classes do not meet

June 9, Friday

Final examinations for first four-week term

Second Four-Week Term
June 12, Monday
Course changes and registration. Classes meet as scheduled.

July 4, Tuesday
Holiday. Classes do not meet.

July 7, Friday
Final examinations for second four-week term

Tentative 2006 Fall and 2007 Spring Semesters

August 26, Saturday
Fall meal plans begin 10 a.m. for transfer and returning students.

August 28, Monday
Classes meet as scheduled.

October 20, Friday
Fall Break

December 15, Friday
Fall semester ends.

December 16, Saturday
Graduation. Commencement exercises.

January 8, Monday
Spring semester begins.

March 5-9, Monday-Friday
Spring Break

May 4, Friday
James Madison University

Founded in 1908 and located in the center of Virginia's famous Shenandoah Valley, James Madison University is a public, comprehensive university. The university offers programs at the bachelor’s, master’s, educational specialist and doctoral levels.

The total enrollment for fall 2004 session was 16,203. This total included 14,991 undergraduate students, 808 graduate students and 384 non-degree seeking students. JMU has 91 major campus buildings, including a 31-acre, off-campus farm. Nearly $143 million worth of 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.

Location

JMU is located in Harrisonburg, Va., a progressive city of over 40,000. The area is flanked by the Blue Ridge Mountains on the east and the Allegheny Mountains on the west. The JMU campus is located just off Interstate 81 and is a two-hour drive from Washington, D.C. and Richmond, Va. and one hour from Charlottesville, Va.

The College of Graduate and Professional Programs is located in the Grace Street House on West Grace Street.

History

In its 96-year history, JMU has grown from a state normal and industrial school for women to today's coeducational comprehensive university. In 1914, the name of the university was changed to the State Normal School for Women at Harrisonburg. 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 name was changed to James Madison University.

Timeline of the James Madison University College of Graduate and Professional Programs

1954 The State Board of Education authorized the university to offer programs leading to the Master of Science in Education.
1960 The Virginia Board of Education authorized the university to offer programs leading to the Master of Science degree with a major in biology.

1973 Master of Arts in Teaching and the Master of Education degrees were authorized.

1977 Master of Science in Health Sciences was authorized.

1979 Master of Fine Arts degree was authorized.

1980 Master of Music degrees, Master of Public Administration degrees and Educational Specialist degrees in school psychology were authorized.

1984 Master of Science in Computer Science was authorized.

1996 Doctor of Psychology degree was authorized.

2002 State Council of Higher Education of Virginia authorized the first Doctor of Philosophy degree.

2004 State Council of Higher Education of Virginia authorized the first Doctor of Audiology degree.
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 more than 700,000 titles, including books, government documents, periodicals and audiovisual materials, and over 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 5,200 print and online periodicals, access to full text articles from over a thousand periodicals is available as a result of membership in VIVA, the Virtual Library of Virginia. Access to additional journal titles is provided through a document delivery service. Other 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 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 numerous fields of study. Services such as electronic reference and Interlibrary Loan are also made available via the library Web site. More than 100 personal computers are provided in the public areas of the Libraries. Most of the resources on the library Web site are accessible from any computer on campus, and many are accessible 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 unit. Liaison librarians provide a wide variety of services, including library instruction for course-related activities, development of subject collections, 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.

Media Resources

Phone: (540) 568-6610

Web site: http://www.lib.jmu.edu/media/

Media Resources 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 consult on instructional technology projects and purchases undertaken by other units. Portable equipment is provided for loan and use in locations without technology. The staff offer training support for users of all installed and portable equipment, as well as repair services for non-computer media technology owned by the campus.

The Media Center in Carrier Library acquires and houses commercial educational media in video, audio and computer software formats for instruction and study by faculty, staff and students. Faculty and staff can also use the center's media rental service for items not in its collections, and its reference service to locate these software resources. The center also facilitates the scheduling and taping of satellite programming, and distributes selected campus-wide software such as Microsoft Office, SPSS and other applications in
Center for Instructional Technology

Phone: (540) 568-7061

Web site: http://cit.jmu.edu/cit/

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.

Distributed and Distance Learning Services

Phone: (540) 568-7061

Web site: http://ddls.jmu.edu

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.

**Computing Support**

Web site: [http://www.jmu.edu/computing/support/](http://www.jmu.edu/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 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.

**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**

Phone: (540) 568-3555


The HelpDesk is a troubleshooting hotline 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)
The Center for Assessment and Research Studies (CARS)

Dr. Donna L. Sundre, Executive Director

MSC 6806, JMU, Harrisonburg, VA 22807

Phone: (540) 568-6706

Web site: http://www.jmu.edu/assessment

Center for Assessment and Research Studies Faculty

Dr. Dennison Bhola, faculty
Dr. Christine DeMars, faculty
Dr. T. Dary Erwin, Associate Vice President
Dr. Sara Finney, faculty
Dr. J. Patrick Meyer, faculty
Dr. Dena Pastor, faculty
Dr. Donna Sundre, Executive Director
Dr. Steve Wise, faculty
Dr. Vicki Wise, faculty
Mr. David Yang, computer programmer

Mission

The Center for Assessment and Research Studies seeks to become a nationally recognized standard of excellence for assessment programs in higher education through its doctorate in assessment and measurement, through practitioner work on campus, through professional organizations, and through writing in national publications. As part of this national model, the Center will design sophisticated and innovative assessment instruments that meet the needs of higher education communities. Moreover, Center faculty will
produce graduates from assessment and measurement programs who will assume national leadership positions in higher education accountability. Both Center faculty and students will contribute to the scholarship of assessment through publishing research and performing service. In addition, Center faculty will assist faculty, student affairs staff, and administrative staff in the process of their assessment of learning and development outcomes.

Originating in 1986, The Center for Assessment and Research Studies (CARS) at James Madison University is one of the largest campus-based agencies devoted to outcome assessment in the United States. Ten faculty and three staff perform a variety of assessment activities in general education, the major, and student affairs. In conjunction with JMU's Office of Information Technology, the Assessment Center operates a computer-based testing lab where a variety of computer-based tests are administered on an ongoing basis to students. CARS also administers a Ph.D. program in assessment and measurement established in 1998 designed to meet the expanding accountability, quality assurance, and outcome assessment needs of education, government, and industry.
Admission Requirements

All applicants to individual graduate programs at JMU must first satisfy the general application requirements of the College of Graduate and Professional Programs. These are:

- Graduation from a regionally accredited college or university.
- Satisfactory grade point average.
- Satisfactory test scores from an appropriate, national standardized test, such as the Graduate Record Examination (GRE), Graduate Management Admission Test (GMAT), or Miller Analogy Test (MAT). Consult the individual programs for specific entry test requirements.
- Official transcripts from all colleges or universities attended. NOTE: Students may not substitute experiential learning for required academic credit.

Once these requirements are met, each student's application materials are then sent to the individual graduate program. An application is not considered complete until all required credentials and supporting documents have been received by the College of Graduate and Professional Programs. Prospective students are strongly encouraged to submit their applications online. Students should be aware that applications submitted through the mail may take longer to process. Applications that are not completed within 90 days of initial receipt will not be processed.

Additional application materials may be required by individual graduate programs. In accordance with the Southern Association of Colleges and Schools guidelines, graduate programs must establish both qualitative and quantitative requirements that result in the admission of students whose educational preparation indicates the potential for a high level of performance. Admission procedures include the requirement that an applicant...
submit, as part of the formal application process, evaluations by professionals in the field as to the readiness of an applicant for graduate work, and, if appropriate, credential evaluations. Standardized test admission criteria for each graduate program are established by the faculty responsible for instruction in that program. Contact the program directly or see the Web site for specific requirements.

**General Application Procedures**

Prospective students must submit their applications online through the College of Graduate and Professional Programs Web site at [http://www.jmu.edu/cgop/prospective/](http://www.jmu.edu/cgop/prospective/). Students who need a paper format due to a disability should contact the Office of Disability Services to determine their eligibility for accommodations in the application process.

JMU does not allow students to apply to more than one graduate program per application form. Information regarding financial aid may be accessed online at [http://www.jmu.edu/cgop/finassist.shtml](http://www.jmu.edu/cgop/finassist.shtml) or [http://www.jmu.edu/finaid](http://www.jmu.edu/finaid). Class schedules are available online at [http://www.jmu.edu/registrar](http://www.jmu.edu/registrar).

The current graduate catalog may be purchased from the JMU Bookstore or accessed online through the College of Graduate and Professional Programs Web site.

The following information must be submitted online:

- Official graduate application form
- $55 nonrefundable fee

1 Graduate applications will not be processed without application fees. Application fees cannot be waived. Payment must be made online: The JMU College of Graduate and Professional Programs will not accept paper checks with applications submitted online.

The following information should be mailed to the College of Graduate and Professional Programs:

- Official transcripts sent directly from all previously attended institutions.
- The official standardized tests scores (GRE, GMAT, etc.), sent directly from the testing center.

Transcripts and test scores should be mailed to:

College of Graduate and Professional Programs, MSC 6702

James Madison University

Harrisonburg, VA 22807
All 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 graduate programs have specific deadlines for application review: Consult the specific academic program.

**Application Deadlines**

The College of Graduate and Professional Programs has a rolling admission policy. However, individual graduate programs may have different deadlines. Refer to specific academic programs for details. If no deadlines are given by academic units, applications should be submitted by the following dates for the best opportunity of admission.

- **Summer session** – February 1
- **Spring semester** – September 1
- **Fall semester** – May 1

**International Student Applications**

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 met.

All initial inquiries for international admissions must be conducted through the College of Graduate and Professional Programs. Correspondence with particular departments or program coordinators is strongly discouraged. Applicants residing outside the United States must allow 12 months between application for admission and the requested enrollment semester.

In addition to the general application requirements of the College of Graduate and Professional Programs, all international students applying for admission to a graduate program must:

- 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 (TOEFL). Examples of acceptable scores include 570 on the paper-based version and 230 on the computer-based version. For more information, visit [http://www.toefl.org](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. A form for this purpose is accessible at [http://www.jmu.edu/cgop/prospective/international.shtml](http://www.jmu.edu/cgop/prospective/international.shtml). Although the university has no financial assistance reserved exclusively for international
students, after being enrolled for at least one full semester international students are permitted to compete for financial aid with other graduate students.

- Have official transcripts sent directly to the College of Graduate and Professional Programs from the accredited institution granting the baccalaureate degree. A credential evaluation of the academic record must be submitted to ensure that it is comparable to a U.S. baccalaureate degree. External evaluators are listed online at http://www.jmu.edu/cgop/prospective/international.shtml.

- Submit an online application and $55 nonrefundable application fee (in U.S. dollars) six months to one year 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. If in the United States attending or having completed a degree from a U.S. college or university, an International Student Adviser Form must be completed by that institution and submitted with the application. Students should request the form from Dr. Elizabeth T. Puckett.

- Enter the United States on a valid student or other visa.

For further information regarding international student applications, contact:

Dr. Elizabeth T. Puckett, Director of Graduate Student Support

College of Graduate and Professional Programs, MSC 6702

James Madison University

Harrisonburg, VA 22807

(540) 568-7065

pucketet@jmu.edu

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

Director, Office of International Student and Faculty Programs, MSC 8003

James Madison University

Harrisonburg, VA 22807

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

Reserve Graduate Credit

During their senior year at James Madison University, undergraduate students who have been admitted into a JMU graduate program may take up to nine hours of graduate course work for reserve graduate credit. Graduate credit earned prior to completion of an undergraduate degree is held in reserve to be applied later toward the graduate degree.
These graduate credits cannot be used as part of the student’s undergraduate degree.

Before beginning any graduate course work, students must complete the Reserve Graduate Credit form, which is available online at http://www.jmu.edu/cgop/forms.shtml. It is the student’s responsibility to obtain all required signatures.

Approval for reserve graduate credit applies only to graduate work at James Madison University.

**Offer of Admission to the College of Graduate and Professional Programs**

The dean of the College of Graduate and Professional Programs will send official written offers of admission to applicants who have been accepted. This letter specifies the effective date of admission (which normally coincides with the semester requested on the application), the classification of admission being offered (conditional or unconditional) and the name of the faculty adviser assigned to the applicant. After being accepted into a graduate program, students can defer enrollment only with the written approval of the graduate coordinator of their academic program and the dean of the College of Graduate and Professional Programs. In no circumstances may the deferral be for more than one calendar year.

The applicant must send a written acceptance or rejection of the admission offer to the College of Graduate and Professional Programs no later than the deadline specified by the graduate program. This allows the specific program to invite other candidates. A student who enrolls at another institution is considered to have rejected the university’s offer of admission. An applicant who has received an offer of admission but who has not responded by the deadline is considered to have rejected the university’s offer of admission and must submit a new application and fee to be reconsidered for admission at a later date.

**Admissions Classifications**

Applicants may be admitted to the College of Graduate and Professional Programs under three classifications: unconditional, conditional or provisional admission.

**Unconditional Admission**

Unconditional admission indicates that an applicant has met all the entry criteria of the College of Graduate and Professional Programs and the specific graduate program.

**Conditional Admission**

Conditional admission indicates that an applicant has met all the entry criteria of the College of Graduate and Professional Programs, but the graduate program has identified
specific conditions that must be met before the applicant attains unconditional admission status.

Individual graduate programs determine the provisions of a conditional acceptance and decide when the provisions can be modified or removed. After the applicant addresses the provisions of the conditional acceptance, he or she may write a request to his or her adviser, who decides if the applicant has met the provisions for acceptance into the graduate program. The adviser then contacts the College of Graduate and Professional Programs indicating the change of status. While applicants are encouraged to attain unconditional acceptance as soon as possible, some graduate programs' provisions often cannot be completed until just before graduation, e.g., teacher licensure or competency in a foreign language(s). Master's and Educational Specialist students have a maximum of six years and doctoral students have a maximum of eight years to complete their graduate programs. All students must attain unconditional status prior to program completion.

Provisional Admission

Provisional admission indicates a probationary status; applicants who have not met all of the requirements of the graduate program to which they are applying may be granted admission under a provisional status as prospective candidates for a degree. Such students must have the removal of provisional conditions as their initial objective. An applicant may be admitted to a graduate program under provisional status if:

- the previous academic record is weak,
- prerequisite course work is insufficient, or
- the applicant has majored in another field and has not yet clearly demonstrated abilities in the proposed new field.

The requirements for advancement to unconditional status are specified in each applicant's provisional admission letter. To change from provisional to regular status, an applicant must submit a written request to his or her major adviser. The adviser then contacts the College of Graduate and Professional Programs indicating the change of status.

The College of Graduate and Professional Programs determines if graduate credit earned while enrolled in a provisional status is acceptable based on the recommendation of the academic unit head. No more than nine hours of graduate credit taken in this status may be applied to the degree program. Regulations concerning unsatisfactory progress apply to this classification. (See Unsatisfactory Progress.)

Appeal of Admission Decision

Although the official letter indicating an applicant's admission classification or denial of admission into a program emanates from the College of Graduate and Professional Programs, all admission decisions, including the denial of admission to a program, are made by the faculty of the program to which the student applies. As such, any appeal of an admission decision, including denial of admission, must be directed to the individual
graduate program.

**Change of Program**

Admission to CGOP and a graduate program does not entitle a student to transfer to a program in another academic unit, as defined by the College of Graduate and Professional Programs.

Any student wishing to change graduate programs must submit a new application for admission, application fee and any updated standardized test scores to the College of Graduate and Professional Programs. The student is responsible for meeting all academic unit requirements for the desired program.

**Continuous Enrollment**

All students enrolled in graduate degree programs must enroll each regular semester for a minimum of one graduate credit hour. This registration must continue with no breaks from enrollment in the first graduate program course to graduation. This policy does not include summer sessions.

Students should enroll in courses relevant to their graduate program to facilitate timely completion. If it is not possible to do so, however, the College of Graduate and Professional Programs has established a one-credit Continuous Enrollment course, GRAD 597. The tuition for this course is $50.00. No grade will be assigned for this course. For more information, refer to General Regulations.

**Time Limitations**

**Master's and Educational Specialist Students**

Master's and educational specialist students must complete all degree requirements within six years. Academic credit, including transfer credits taken before enrollment in the graduate program, completed more than six years before the date at which the master's or educational specialist degree is awarded may not be used to satisfy the degree requirements. Students may submit a written petition through their adviser, graduate program coordinator, and academic unit head to the dean of the College of Graduate and Professional Programs to receive extensions of time in the event of extenuating circumstances. Such requests must be received at least one month prior to the end of the student's original six-year time limit.

A student whose status is deactivated, but later is reactivated through reapplication to the College of Graduate and Professional Programs, may not count the six-year time limit as beginning on the date of reactivation.

**Doctoral Students**
Doctoral students must complete all degree requirements within eight years. Academic work, including transfer credits taken before enrollment in the graduate program, that was completed more than eight years before the date at which the doctoral degree is awarded may not be used to satisfy the degree requirements. Students may submit a written petition through their adviser, graduate program coordinator, and academic unit head to the dean of the College of Graduate and Professional Programs to receive extensions of time in the event of extenuating circumstances. Such requests must be received at least one month prior to the end of the student's original eight-year time limit.

A student whose status is deactivated, but later is reactivated through reapplication to the College of Graduate and Professional Programs, may not count the eight-year time limit as beginning on the date of reactivation.

University Residency

Graduate students must register a local address with the College of Graduate and Professional Programs office prior to initial registration for classes. All changes in local address must be registered with the Office of the Registrar. This can be done through e-campus, online at http://www.jmu.edu/registrar.

Admission of Veterans

The College of Graduate and Professional Programs 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

Passing a third year foreign language course, a reading knowledge of a foreign language or successful completion of a foreign language exam is required in those academic units which so specify. Consult the degree requirements of the academic programs for individual requirements.
Professional and Continuing Education Programs

Professional and Continuing Education Programs are part of the College of Graduate and Professional Programs. It is the responsibility of Professional and Continuing Education Programs to oversee credit and non-credit, off-campus courses, online non-credit courses, and professional certificate programs offered by JMU. Professional and Continuing Education Programs also oversee the enrollment of non-degree seeking students. Non-degree seeking students are individuals who enroll in offered credit courses, but do not seek a degree.

Certificate Program Admission

Individuals who wish to pursue a certificate must apply to the program and be accepted before registering for classes. Individuals must complete the Non-Degree Seeking Student Application, select “Certificate” and write in the program to which they are applying. Virginia residents must also complete the “Checklist and Application for Virginia In-State Tuition Rates.” A non-refundable $45 processing fee must accompany the application. Although certificate program students are considered non-degree seeking students, applicants for certificate programs need only complete the Non-Degree Seeking Student Application once, for the semester in which they wish to begin the program. Applications for certificate programs are forwarded to the appropriate academic unit for review, and applicants should check with the academic unit for additional application materials that may be required. A list of available certificate programs can be found at [http://www.jmu.edu/continuingeducation, “Certificate Programs.”]

Non-Degree Seeking Student Admission

The non-degree seeking student classification includes adult non-degree students, audit students, certificate students, high school non-degree students, international non-degree students, post-baccalaureate students, post-master’s students, senior citizens, and term and transient students. Individuals seeking enrollment as a non-degree seeking student must complete the “Non-Degree Seeking Student Application.” Virginia residents must also complete the “Checklist and Application for Virginia In-State Tuition Rates.” A non-refundable $15 processing fee must accompany the application. Non-degree seeking students must submit the application and processing fee each semester they enroll in a course. Post-baccalaureate and post-master’s courses at the 600 level and above require approval by the appropriate department head. Term and transient students (students
seeking degrees from other institutions) must provide a Term Student Supplement or Transient Student Supplement form in addition to the non-degree seeking student application and Virginia in-state form. Non-degree seeking students can complete the non-degree student application and the in-state form by going to http://www.jmu.edu/continuingeducation and clicking “Apply Online Now” or “CE Forms.”

Students should register online during the dates identified for non-degree seeking students following the instructions at http://www.jmu.edu/registrar and clicking “For Students” then “Registration Information Dates and Deadlines.” Walk-in registration and course adjustments are also permitted for non-degree seeking students.

The courses taken in the non-degree seeking student category carry university credit, and they may be transferred into a graduate program, once admitted, at the discretion of the program. Taking courses as a non-degree seeking student does not constitute admission to a program or imply later applicability of these courses toward a degree. An individual who has been academically dismissed from another institution or denied regular admission to JMU shall be required to wait for at least one calendar year for admission as a non-degree seeking student.

Non-Degree Seeking Student Classifications

Adult Non-degree Students

Undergraduate students may enroll at JMU as adult non-degree seeking students and register to take up to 11 semester hours per semester for college credit without qualifying credentials if they meet all of the following conditions:

- Are bona fide residents of the JMU service region as defined by the College of Graduate and Professional Programs.
- Have high school diplomas or the equivalent.
- Have had an interruption of at least two years in their formal education at the time of entry.

Adult non-degree seeking students desiring to become regular degree seeking students should contact the Office of Admissions for advising. Taking courses as a non-degree student does not constitute admission to a program or imply later applicability of these courses toward a program or imply preferential regular admissions consideration. Returning adult students interested in earning a bachelor’s degree should contact the Adult Degree Program at http://www.jmu.edu/continuingeducation. Adult students who have earned at least 30 semester hours of credit at JMU or transferable credit from another appropriately accredited institution of higher education may enroll in an individualized adult degree program. Orientation courses (IS 200A-C) are provided through the Adult Degree Program to assist returning adult learners to transition back to school.

Audit Students
Persons who do not wish to receive credit for courses may register to audit. Fees for audit will be assessed on the same basis as fees for credit. Approval to audit must be obtained from the head of the academic unit offering the course.

Certificate Students

Students applying for a certificate program should complete the Non-Degree Seeking Student Application, select “Certificate” and write in the program to which they are applying. Students should check with the academic unit about specific application requirements. Also refer to the Certificate Program Admission section of this catalog.

High School Non-degree Students

High school students who have completed their junior year may enroll at JMU as non-degree students. They may register for classes in the summer term preceding their senior year and/or during their senior year. While recent high school graduates may register for summer classes as non-degree students, this does not constitute admission to subsequent semesters. Students in this program may enroll for no more than two courses during the summer term and for one course each term while attending high school classes. High school students seeking to register at JMU under this program must submit the Non-degree Seeking Student Application, a recommendation from the high school principal or guidance counselor, and a transcript of high school grades. Registration must be approved by the head of the academic unit(s) in which the student desires to take a course(s). Should the student enroll as a full-time student at JMU following high school graduation, credits earned, where appropriate, will apply toward degree requirements following the completion of one term. Transfer of these credits to other colleges will be at the discretion of the institution concerned.

International Non-degree Students

Students from foreign countries who are attending JMU for one semester or in certain cases a full academic year, under a program sponsored by the university and a foreign institution of higher education are classified as International non-degree students. These students will be accorded all rights and privileges and will be expected to meet the same responsibilities as regular JMU students. These students will be permitted to take over 11 semester hours with the approval of the international student adviser.

Post-baccalaureate Students

Graduates of an accredited institution who wish to take courses may enroll as post-baccalaureate students but are not admitted as a regular degree-seeking graduate student. The post-baccalaureate student may take undergraduate and 500-600 level courses. Any student who holds a bachelor's degree and wishes to pursue a graduate degree should apply through Graduate Programs at the College of Graduate and Professional Programs. Under no circumstances will more than one-half of the total graduate credits required for completion of a program be considered for transfer/inclusion.
in the student's program of study. This includes any hours taken at JMU prior to acceptance. Students may not transfer in more than 9 credit hours from institutions other than JMU.

**Post-master's Students**

Non-degree seeking students who hold a master's degree may enroll as post master's students but are not admitted as regular degree-seeking graduate students. A student who wishes to pursue a second graduate degree should apply through Graduate Programs at the College of Graduate and Professional Programs. Under no circumstances will more than one-half of the total graduate credits required for completion of a program be considered for transfer/inclusion in the student’s program of study. This includes any hours taken at JMU prior to acceptance. Students may not transfer in more than 9 credit hours from institutions other than JMU.

**Senior Citizens**

Senior citizens, age 60 or over, who are legal residents of Virginia may enroll as non-degree students. Some senior students may qualify for a waiver of tuition and applicable fees. Additional information may be obtained from the College of Graduate and Professional Programs.

**Term and Transient Non-degree Students**

An undergraduate student working toward a degree at another accredited institution is known as a Term non-degree student. 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 non-degree student. Term/Transient non-degree students may enroll at JMU to take up to 11 hours per semester and must enroll each semester in which they desire to take classes at JMU. In addition to the Non-degree Seeking Student Application form, Term/Transient non-degree students must submit (on forms provided by the College of Graduate and Professional Programs if appropriate) documentation of good standing at their home college or university and must specify that the credits undertaken at JMU are to be transferred to the home institution.

**Non-credit Courses**

JMU coordinates all non-credit instructional programs through CGOP. These programs are available for supplementing and updating knowledge, skills and abilities. Some non-credit courses and workshops award continuing education units (CEUs) as a uniform measure of professional development and to signify the student has completed the course or workshop. Information on CEUs is available online at [http://www.jmu.edu/cgop/faculty](http://www.jmu.edu/cgop/faculty) by clicking the “CEU Information” link. Information on non-credit course offerings and registration is available at [http://www.jmu.edu/continuingeducation](http://www.jmu.edu/continuingeducation) by clicking “Noncredit Courses” or “Online Noncredit Courses.” Additional information about Professional and Continuing Education Programs as well as other registration information can be accessed at [http://www.jmu.edu/cgop/faculty](http://www.jmu.edu/cgop/faculty).
General Regulations

Upon enrollment, graduate students accept responsibility to remain current on policies and regulations set forth by their programs of study and the College of Graduate and Professional Programs. Current regulations and policies are updated annually and published in the CGOP Policy and Procedures Manual. Further explanations and clarification are available from the College of Graduate and Professional Programs Website at http://www.jmu.edu/cgop/.

Advising

Faculty Advisers

All students admitted into the College of Graduate and Professional Programs are assigned faculty advisers. Graduate program coordinators/directors or designated members of the graduate faculty serve as faculty advisers.

After admission, students must meet with their advisers to select initial course work and plan their programs of study. Programs of study should be developed prior to initial registration.

Changes to Policies and Programs of the College of Graduate and Professional Programs

It is the responsibility of each student to become and remain aware of all applicable requirements and provisions that may apply to the student.

It is the prerogative of each academic unit to make changes in programs at any time prior to graduation. Students typically complete the program requirements as described in the catalog of the year in which they entered their program. Students who do not conform to their catalog must complete a program of study.

Exceptions to Regulations

Exceptions to any of the published rules and regulations cited within the Graduate Catalog must be requested by petition to the College of Graduate and Professional Programs. Such
Comprehensive Examination Procedure

A formal assessment of mastery designed to appraise the student's competence is required of each JMU student in order to complete his or her program of graduate study. Although the formal assessment typically takes the form of a comprehensive exam, other formal assessment formats may be acceptable as determined by the graduate program.

The format and timing of this assessment is at the discretion of the graduate program, provided it fairly and adequately documents the knowledge and skills the student has acquired. The content of the comprehensive exam should accurately reflect the content of the student's academic program. The exam should require 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 content areas to be determined by the graduate program faculty.

Comprehensive Examination Procedure Committees

Each graduate program must have a comprehensive examination committee for the program and/or for the individual student. Individual student comprehensive committees are selected by the student in consultation with the graduate program coordinator and/or program adviser. Each comprehensive exam committee must consist of at least three JMU graduate faculty members with the background and interest necessary to evaluate the mastery of the student. At least two members must be from the student's graduate program.

Non-graduate faculty members of the comprehensive exam committee, which may include persons external to the university, must be approved by the College of Graduate and Professional Programs. 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 College of Graduate and Professional Programs 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 comprehensive examination committees. Only a graduate faculty member from the student's graduate program may chair a comprehensive examination committee.

Comprehensive Examination Procedure Failure

In the event a student fails the comprehensive examination, the student may request a re-examination. Unless there are extenuating circumstances, the re-examination must occur within six months of the date of failure. Only one re-examination will be allowed. Cases
involving extenuating circumstances must be raised or supported by the graduate program faculty and presented in writing to the dean of the relevant college and the dean of the College of Graduate and Professional Programs for approval. If a student fails the second comprehensive examination, his or her graduate program will be terminated.

**Comprehensive Examination Procedure Continuance**

Students completing all degree requirements except the comprehensive examination are required to enroll each semester until they have passed the comprehensive examination. Students must register for comprehensive continuance credit hours during those semesters in which they are engaged in preparation for the comprehensive examination. NOTE: The continuous enrollment course GRAD 597 cannot be used as a comprehensive continuance course. Credit hours for comprehensive continuance do not count toward graduate program requirements.

**Continuous Enrollment**

All students enrolled in graduate degree programs must enroll each regular semester for a minimum of one graduate credit hour. This registration must continue with no breaks from enrollment in the first graduate program course to graduation. This policy does not include summer sessions.

It is preferable that students enroll in courses relevant to their graduate program to facilitate timely completion. If it is not possible to do so, however, the College of Graduate and Professional Programs has established a one-credit continuous enrollment course, GRAD 597. The tuition for this course is $50.00. No grade will be assigned for this course.

**GRAD 597. Continuance. 1 credit**

To remain in good standing in their program, all graduate students must maintain continuous enrollment each semester in their program from entry until graduation. This course allows those students who are not intending to register for any other courses during the current semester to continue in their program in good standing. Course may be repeated as needed.

It is possible to receive an exemption from the Continuous Enrollment requirement. There are two possible types of exemption from the continuous enrollment requirement:

**Leave of Absence:** Continuous Enrollment is granted in individual cases when the student demonstrates sufficient cause (e.g., illness, or other personal circumstances). A request for this type of leave must be submitted by the student in writing (electronic mail is sufficient), indicating the reason(s). The student’s request must be approved by the graduate coordinator of the student’s program and the dean of the College of Graduate and Professional Programs. Leave of Absence: Continuous Enrollment is granted for a specified
Academic Programs: Academic Units

time period that may not exceed three semesters total, excluding summer session. In no case may on-leave status exceed this maximum throughout the student’s entire degree program. When a student on leave plans to resume graduate study, he or she must inform the program coordinator and CGOP at least 30 days prior to the first class day of the return semester.

Planned Leave of Absence is granted to students for whom the unique design of their graduate program (not the manner in which they choose to complete their program) is such that the offering of courses is not on a continuous semester-to-semester basis. Planned Leave of Absence for students in a program is requested by the program faculty and must be approved by the dean of the College of Graduate and Professional Programs. Examples of programs suited for Planned Leave of Absence includes summer-only programs, programs using a distance learning format and “executive” programs. It is assumed that these programs will not require the continuous enrollment exemption for the entire length of the program. Thus, students whose graduate programs are pre-approved for Planned Leave of Absence must submit a Request for Planned Leave of Absence indicating each term for which leave is requested. It is also assumed that these students will complete all degree requirements within the time limits established in the Graduate Catalog.

Both leaves must be approved by the dean of the College of Graduate and Professional Programs.

A graduate student who takes an unapproved break in registration by failing to maintain continuous enrollment or by failing to obtain a Leave of Absence: Continuous Enrollment will relinquish his or her graduate standing in the university. Students who wish to be reinstated will be required to file an Application for Graduate Admission and pay the application fee.

The following are circumstances for which GRAD 597 is not appropriate:

- During the graduation semester. A student cannot use GRAD 597 as the enrollment requirement during the semester he or she is scheduled to graduate. All graduate students must be enrolled in a course in their program, such as thesis or dissertation continuance, during the semester they are scheduled to graduate.

- While completing a dissertation or thesis. If a student’s graduation must be delayed a semester while he or she is completing a dissertation or thesis, he or she should register for thesis or dissertation continuance. GRAD 597 is not an option since the student will continue to receive feedback from the adviser and committee members while the thesis or dissertation is being completed.

- When an “I” is received in a course during the anticipated graduation semester. If a student is scheduled to graduate but receives an “I” in a course,
the student will not officially graduate until the course is completed. Because all course work must be completed by the final date of the student's graduation semester, a student failing to meet the deadline will not officially graduate until the following semester. The solution existing in the first example applies. Students must register for at least one hour of thesis or dissertation continuance, comprehensive continuance, reading and research, or other course option appropriate to their program of study.

Except for extenuating circumstances requiring approval from the dean of the College of Graduate and Professional Programs, time spent in on-leave status will be included in all time limits pertaining to the student's degree program.

Students in on-leave status may not:

- use any university facilities,
- make demands upon faculty time, or
- receive a fellowship or financial aid.

**Course Completion Deadlines**

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 online at [http://www.jmu.edu/registrar](http://www.jmu.edu/registrar) or this Web site for exact dates.

**Course Credits**

### Academic Loads

<table>
<thead>
<tr>
<th>Status</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full time</td>
<td>9 or more</td>
</tr>
<tr>
<td>Three-quarter time</td>
<td>6</td>
</tr>
<tr>
<td>Half time</td>
<td>5</td>
</tr>
<tr>
<td>Less than half time</td>
<td>4 or less</td>
</tr>
</tbody>
</table>

The classification of students, i.e. full time, etc., in graduate programs is often considered in determining payment deferment on undergraduate student loans, eligibility for insurance benefits, etc.

To be eligible to receive an assistantship, each student must be unconditionally accepted into a graduate program at JMU. A student who is provisionally accepted will not be eligible for a graduate assistantship until he or she achieves unconditional acceptance into
Graduate assistants are required to make significant progress toward their degrees, which means they must:

- Carry nine hours of graduate course work each semester. Note: Underload approval is required if a graduate assistant is not registered for nine graduate hours each semester. Underloads for fewer than six graduate credits are not approved. Only one underload may be granted during a graduate assistant's program of study.
- Maintain at least a 3.0 graduate GPA in order to retain or reapply for the assistantship.
- Receive assistantships for a maximum of four semesters (fall and spring) or two academic years, except for Doctoral Assistants, students in the Master of Fine Arts program or students seeking the Education Specialist degree.

For their courses to be covered by their assistantship, all graduate assistants must enroll each semester during the regular registration period(s) and prior to the tuition refund date as outlined online at [http://www.jmu.edu/registrar](http://www.jmu.edu/registrar). Students who register for any additional courses after this time period will be held responsible for additional tuition and fees. Students who drop courses after the tuition refund date will be responsible for fees and will receive a grade of “W” for the course. Exceptions may be made only for documented extenuating circumstances and will be handled on a case-by-case basis by the dean of the College of Graduate and Professional Programs. Students must contact the JMU Ombudsperson, Huffman Hall A101 if all courses are dropped to withdraw from the university.

**Transfer Credit**

Students who wish to receive graduate credit for courses taken prior to entering a JMU graduate program must submit requests to their adviser during the first semester of enrollment. The Approval of Transfer Credit form is available online at [http://www.jmu.edu/cgop/gradforms.shtml](http://www.jmu.edu/cgop/gradforms.shtml).

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 College of Graduate and Professional Programs.

Under no circumstances will more than one-half of the total graduate credits required for completion of a program be considered for transfer/inclusion in the student's program of study. This includes any hours taken at JMU prior to acceptance. In the case of variable credit programs, the one-half maximum transfer hours allowed will be calculated based on the minimum number of hours required for the degree. Students may not transfer in more than 9 credit hours from institutions other than JMU.
Transfer credit applications must be approved by the major adviser, minor adviser (if applicable), major academic unit head, and the dean of the College of Graduate and Professional Programs. Exceptions to the policy may be considered on a case-by-case basis.

It is the student's responsibility to furnish evidence that any course presented for transfer of credit is applicable to a comparable degree at the accredited institution where the course was taken. If the necessary information is not on the official transcript, it must be obtained in writing from the appropriate dean of the institution where the course work was earned. In all cases, courses considered for transfer of credit must be applicable to a comparable degree at JMU. Courses that are not intended by the institution offering them to be part of a degree program, such as extension and in-service courses, are not acceptable for transfer to JMU.

Credits earned to complete a previous graduate degree may not be applied to a second graduate program at JMU at the same degree level. However, previously earned graduate credit earned as a part of a master's degree program from an accredited institution may be counted toward the degree requirements of a higher level degree, such as the Master of Fine Arts, Educational Specialist, and doctoral degrees. Academic work, including transfer credit, taken more than six years before the master's degree award date or eight years before the doctoral degree award date may not be used to satisfy the degree requirements. No transfer credit will be approved while a student is in provisional status.

Students must familiarize themselves with their specific program requirements as discussed in the academic sections of this catalog. Individual programs will have detailed information relative to the acceptance of credit hours toward their degrees.

Course Levels

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 enroll in graduate-level courses with prior written approval from the instructor.

Some programs use dual-numbered courses that allow both graduate and undergraduate students. For example, such courses may offer content concurrently on the 400 and 500 levels. In such instances, higher quality and/or additional work is required of the students enrolled at the graduate level in these courses. The additional demands required of graduate students in these dual-numbered courses is evident in the course syllabus and catalog description.

Course Level Requirements

All credits contained in the student's program leading to an advanced degree at JMU must be in courses designated for graduate students. Where the program has a minor, at
least six of these 600-level credits must be in the minor. Students should refer to their academic program for specific requirements. Only six hours of 501 workshop courses may be applied to a graduate degree program.

Dissertation and Thesis Research

A dissertation is required of all candidates for the Doctor of Audiology, Doctor of Psychology and Doctor of Philosophy degrees.

A thesis is required in several master’s and Ed.S. programs. 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 in consultation with his or her adviser. Graduate students are required to register for the minimum hours of thesis or dissertation credit required in their major fields. Students must register for thesis or dissertation credit hours during those semesters in which they are engaged in the research or in the writing of the thesis or dissertation. NOTE: The continuous enrollment course GRAD 597 cannot be used as a thesis or dissertation continuance course.

Dissertation and Thesis Requirements

The general requirements for the preparation of a thesis or dissertation pertain primarily to formatting. These requirements provide a degree of uniformity and ensure that each thesis or dissertation is in a form suitable for binding, is fully legible and can be preserved.

Students who submit a thesis or dissertation in partial fulfillment of the requirement for a graduate degree at JMU should consult the JMU College of Graduate and Professional Programs Thesis and Dissertation Manual for detailed guidelines to submission. A general overview includes these steps:

Students should:

- Consult their program requirements for guidelines on registering for their thesis and dissertation.
- Select a graduate faculty member as committee chair.
- Identify the remaining members of the committee with guidance from the committee chair.
- Submit the Committee Approval form to the College of Graduate and Professional Programs.
- Begin the project using the style guide recommended by their program.
- Schedule an appointment with CGOP to review the format of their project.
- Make necessary formatting changes.
- Obtain approval signatures.
- Turn in final copies of their work and approval sheets to CGOP.
- Deliver boxed copies to the library and their program coordinator.

Titles of dissertations will be printed in the graduation program if the information is received by the appropriate deadline. In addition, a copy of each student’s thesis or dissertation will
Dissertation and Thesis Committees

Students pursuing degrees requiring completion of a thesis or dissertation must have a thesis or dissertation committee to oversee progress toward the degree. Students should select a graduate faculty member from their graduate program to act as the chair of the committee and select the remaining committee members with the guidance of your committee chair.

The following govern the selection of committee members:

- Each committee must consist of at least three approved members of the JMU graduate faculty.
- At least two of the three committee members must be from the students' graduate program.
- The dean of CGOP must approve non-graduate faculty members for thesis, research project or dissertation committees.
- Non-graduate faculty members may include persons external to the university.
- Non-graduate faculty members shall make up no more than one-third of the total committee membership.
- In addition to the three required committee members, a graduate instructor, when his or her expertise clearly qualifies him or her, may be appointed to a committee with the approval of the dean of CGOP.
- The Committee Approval form must be completed and submitted to the College of Graduate and Professional Programs no later than the second week of the semester in which the students register for dissertation or thesis.

Dissertation and Thesis Continuance

Graduate students are required to register for the minimum number of credit hours of thesis or dissertation required by their graduate program. Students must register for thesis or dissertation in the appropriate increments of credit hours, determined by their program, during those semesters in which they are engaged in the research or in the writing of the thesis or dissertation. If students have completed the maximum number of hours allowed by their program for thesis, dissertation, or research project courses but still have not completed the final document, they must register for at least one hour of Thesis Continuance, Dissertation Continuance or Research Project Continuance each semester while they are completing their research or writing. NOTE: The continuous enrollment course GRAD 597 cannot be used as a thesis, dissertation, or research project continuance course.

Dissertation and Thesis Grading

An IP (in progress) grade will be automatically posted for a thesis, dissertation or research project until the thesis, dissertation or research project has been completed and approved by the thesis/dissertation committee. Faculty and students may view this grade on e-campus. A grade of NC (no credit) will be automatically entered for Thesis, Dissertation or Research Project Continuance hours. After the thesis, dissertation, or research project is completed and delivered to the College of Graduate and Professional Programs for final
Distance Education Courses

Distance education courses are occasionally offered to part-time students enrolled in a graduate program but who are 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 College of Graduate and Professional Programs.

Permission to Take a Course at Another University After Enrollment

Students enrolled in a graduate program may take graduate courses at another accredited institution. While prior approval is not required, students should secure permission from their adviser, academic unit head, graduate coordinator, and the College of Graduate and Professional Programs to ensure that the course will transfer to JMU.

It is the student’s responsibility to request transfer credit for such courses upon completion and to have official transcripts submitted to the College of Graduate and Professional Programs office. Transfer credit forms are available at the College of Graduate and Professional Programs office or online at http://www.jmu.edu/cgop/gradforms.shtml.

Students who take their last courses to fulfill their programs of study at institutions other than JMU cannot graduate during that semester unless the official transcript for the requested transfer course(s) is received in the College of Graduate and Professional Programs office one week prior to their graduation date. Students must be enrolled at JMU during the semester they graduate.

Correspondence Study

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

Doctoral Candidacy Request

Doctoral students are admitted into candidacy for their graduate degree once they have completed all required course work, passed their comprehensive examination and completed all conditions, such as provisional admission, of the original admission into the individual's degree program. Once students have reached this point, the program coordinator informs the dean of the College of Graduate and Professional Programs electronically or by letter. This confirmation of successful completion of the comprehensive examination is placed in the student's file, and he or she is considered a candidate for the
Academic Programs: Academic Units

doctoral degree. The student is then permitted to advance to completion of his or her
dissertation and graduation.

General Appeal Process

Evaluation of a graduate student’s progress is primarily dependent on the judgments of
appropriate faculty members of the student’s graduate program. The university, through
the College of Graduate and Professional Programs, can define minimal entrance
standards and can prescribe general rules governing eligibility for continuation. However,
the crucial agency in graduate student evaluation is the graduate program in which the
student’s work is focused. Principal evaluators must be faculty members of the student’s
graduate program.

It is assumed that disputes over unsatisfactory progress will be informally discussed and
reconciled at the program or academic unit level. Discussions of this type will commonly
occur among the student, major professor and other faculty members in the graduate
program.

Grade Appeal Procedures

Evaluation of student work and assignment of grades on the basis of academic criteria are
the responsibilities and prerogative of the faculty. The university and its faculty members
also recognize that grading can be a subjective process and students may feel their grade
has been inappropriately assigned. If such disagreements occur, students have a right to
be fairly heard. There are two types of appeal procedures related to grading.

Grade Change Appeal Procedure

The only basis for a grade change appeal is an error in grade assignment or calculation. If a
student believes that a grade was assigned in error because of a mistake in calculation or
an error in recording, to resolve the discrepancy, the student should consult the professor(s)
involved before the Friday of the second full week of classes in the regular semester
following the semester of the contested 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. If the professor agrees that a change should be
made, the professor should submit a Grade Change form and forward it to the academic
unit head or graduate coordinator for signature. A copy will be forwarded to the dean of
the College of Graduate and Professional Programs.

Grade Review Appeal Procedure

If a student disputes a grade for any other reason than error in grade assignment or
calculation, the student can initiate a formal grade review appeal. To activate the grade
review appeal process, the student must follow these 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 must attach a written explanation of reasons for the appeal, 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 course instructor by Friday of the third full week of classes to attempt to resolve the concern.

   ● If the student and the course instructor reach an agreement that the grade should be changed, the course instructor changes the grade by submitting a Grade Change form to the appropriate academic unit head or graduate coordinator for that individual’s signature. A copy of this signed Grade Change form will be forwarded to the dean of the College of Graduate and Professional Programs. For graduate students whose grade of “C,” “U” or “F” is to be changed, notice of the grade change must be sent to the College of Graduate and Professional Programs before that change occurs.
   
   ● If no resolution is reached, the instructor signs the Grade Review form and records a written response on the reverse side of the form. The instructor 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 academic unit head or graduate coordinator by Friday of the fourth full week of classes.

3. The student must contact the relevant academic unit head or graduate coordinator by the Friday of the fifth full week of classes in order to request review of statement and response.

4. The academic unit head or graduate coordinator meets with the student and confers with the relevant course instructor.

   ● The academic unit head or graduate 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 course instructor 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 course instructor submits a Grade Change form to the academic unit head or graduate coordinator and the appropriate individual signs the form. A copy of the form will be forwarded to the dean of the College of Graduate and Professional Programs. Notice of the grade change must also be sent to the College of Graduate and Professional Programs 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 course 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 must 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 dean of the relevant college 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, he or she consults with the relevant professor and academic unit head or graduate coordinator to resolve the dispute.

3. The 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 and sends a copy to the relevant academic unit head or graduate coordinator and the relevant instructor.

   ● If it is agreed that the student’s grade should be changed, the relevant course instructor submits a Grade Change form to the academic unit head or graduate 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 College of Graduate and Professional Programs 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 the dean of the relevant college. 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 until reinstated by a decision of the dean of the College of Graduate and Professional Programs. Reinstatement will only be made on the recommendation of the academic unit graduate appeals committee and the academic unit head. Suspension appeals will be heard promptly. Students may not enroll in any graduate-level courses while on academic suspension.

**Grading System**

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Description</th>
<th>Numerical Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
<td>4.0</td>
</tr>
<tr>
<td>A-</td>
<td></td>
<td>3.7</td>
</tr>
<tr>
<td>B+</td>
<td>Very Good</td>
<td>3.3</td>
</tr>
<tr>
<td>B</td>
<td>Good</td>
<td>3.0</td>
</tr>
</tbody>
</table>

http://www.jmu.edu/cgop/GradCatalog/05/GenRegs.htm (13 of 21) [7/16/2008 1:38:35 PM]
<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
<th>GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-</td>
<td>2.7</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Poor</td>
<td>2.0</td>
</tr>
<tr>
<td>F</td>
<td>Failure</td>
<td>0.0</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete</td>
<td></td>
</tr>
<tr>
<td>IP</td>
<td>In Progress</td>
<td></td>
</tr>
<tr>
<td>W</td>
<td>Withdrawal</td>
<td></td>
</tr>
<tr>
<td>WP</td>
<td>Withdrawal while passing</td>
<td></td>
</tr>
<tr>
<td>WF</td>
<td>Withdrawal while failing</td>
<td></td>
</tr>
<tr>
<td>S/U</td>
<td>Satisfactory/Unsatisfactory</td>
<td></td>
</tr>
<tr>
<td>NP</td>
<td>Not processed</td>
<td></td>
</tr>
<tr>
<td>NC</td>
<td>No credit</td>
<td></td>
</tr>
</tbody>
</table>

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.

- The student’s grade point average appears on his or her transcript.
- Students must take all 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.
- A grade of “W” will be assigned to students who withdraw from a course after the add/drop deadline but before the end of the course adjustment deadline.
- A grade of “WP” or “WF” (according to the status of the student at the time of withdrawal) will be assigned to students who withdraw after the course adjustment deadline at the discretion of the instructor. The “WP” or “WF” will be recorded and remain on the student’s transcript. Only the instructor can assign a “WP” or “WF.”
- A grade of “NP” (not processed) will be assigned to students registered for dissertation or thesis work until their dissertation or 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 assigned to students registering for comprehensive, dissertation or thesis continuance.
- In order to graduate, students must satisfy grade requirements specified by their individual academic program.

### Auditing Graduate Courses

Graduate students may enroll in graduate courses using the “audit” option for elective courses only. These courses 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 a course credit option be changed from “audit” to “credit” or “credit”
to “audit.” Students are required to pay for courses taken as “audit.” Audit courses cannot be paid for using any university sources of funding, e.g. assistantship funding.

Incomplete Grades

The grade of “I” is used to indicate incomplete work in a course. Courses in which a student received a grade of “I” must be completed by the end of the next regular semester or the grade is reported permanently as an “F.”

Students should consult academic unit guidelines regarding such courses. It is the responsibility of the student to ensure grade changes are reported to the Office of the Registrar by the deadline. See the university calendar at the front of this catalog for the date by which grade changes must be submitted.

All course work must be completed by the final date of the student’s final semester. Students failing to meet the deadline will not graduate and will have their degrees dated the following semester. Consult the university calendar in the Registration and Student Record Services Handbook, online at http://www.jmu.edu/registrar or in the front of this catalog for dates.

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, academic unit head, or graduate program coordinator and will be referred to the College of Graduate and Professional Programs for final action.

A student will be dismissed from the degree program or provisional status will be revoked if the student receives an “F” or “U” in any graduate course or a total of three “C” grades in his or her graduate program. Unless there are extraordinary circumstances, 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.

A graduate student will receive a notice of academic warning upon receiving a grade of “C” in any two graduate courses or if the student’s grade point average falls below 3.0. This academic warning will be noted on the student’s transcript. All credits attempted and all grades earned, whether passing or failing, will be used to calculate a student’s grade point average.

In some cases, graduate students may take undergraduate courses as part of their program of graduate study. The GPA includes undergraduate courses taken during graduate study. However, if an undergraduate course places a student’s GPA below 3.0, it will not place the student on probationary status or prevent the student from graduating.
Graduation

The office of the dean of the College of Graduate and Professional Programs, assisted by the graduate faculty, have responsibility for final approval of graduate degrees to be awarded. It is the responsibility of each student to ensure that courses selected are acceptable to the program being pursued. A student cannot graduate with a GPA below 3.0.

Graduate Degree Completion Requirements

The College of Graduate and Professional Programs mandates the following general degree completion requirements in order for students to receive their graduate degrees. Each graduate student must:

- Complete a written graduate plan of study by the end of the student’s first semester and submit it to the College of Graduate and Professional Programs. NOTE: At least one-half of the courses in the student’s required plan of study must be at the 600 course level or above.
- Be continuously enrolled in the graduate program from admission to graduation (unless specifically exempt).
- Have satisfied any conditions of his or her admission, such as provisional or conditional admission.
- Complete the graduate program with an appropriate GPA. The standard for graduation is a 3.0 or higher GPA. Exceptions must be requested from the dean of the College of Graduate and Professional Programs.
- Be enrolled in a course other than GRAD 597 during the semester in which he or she plans to graduate.
- Complete all requirements of the graduate program and College of Graduate and Professional Programs within six calendar years (master's and education specialist degrees) or eight years (doctoral degrees).
- Successfully achieve doctoral candidacy (doctoral students only).
- Successfully complete a comprehensive examination or equivalent as determined by the individual graduate program. NOTE: The graduate program must notify the College of Graduate and Professional Programs that the student has successfully completed the comprehensive examination procedure.
- Submit a thesis, dissertation or research project, if required by the academic program, to the College of Graduate and Professional Programs that meets the format requirements set forth in the College of Graduate and Professional Programs Thesis and Dissertation Manual.
- Complete the minimum period of residency established by his or her program. NOTE: While the traditional period of required residency is optimal, the technological revolution that facilitates distance learning of all varieties may not allow for the traditional approach to residency. Accordingly, all enrolled students are strongly encouraged to take advantage of all available avenues of learning, including accessing the JMU faculty, staff and other students, as well as our library, laboratories and other facilities that nurture the academic experience.

In addition to meeting the general completion requirements set forth by the College of Graduate and Professional Programs, each student must meet the graduation requirements of the individual graduate program.
Application for a Graduate Degree

Students are responsible for notifying both their major academic unit and the College of Graduate and Professional Programs when they plan to graduate. In order to graduate, students must complete the Application for Graduate Degree form available online at http://www.jmu.edu/cgop/gradforms.shtml or from the College of Graduate and Professional Programs. Students are also responsible for consulting their advisers or the College of Graduate and Professional Programs office regarding deadlines for graduation.

The Application for Graduate Degree form must be approved by major and minor (if applicable) adviser(s) and the major academic unit head or graduate program coordinator. Students are responsible for obtaining all necessary signatures to complete the Application for Graduate Degree form.

Note: Students must complete all the conditions of the original admission in their degree program, e.g. conditional admission, at least one semester before they are scheduled to graduate before they can be permitted to graduate.

Only six credit hours of 501 workshop courses approved for inclusion in a graduate program may be applied toward a degree. If students plan to use transfer credits to fulfill degree requirements, these credits, along with official transcripts showing the credits and the transfer of credit form, must appear on the Application for a Graduate Degree form and be forwarded to the College of Graduate and Professional Programs.

Requirements for Graduation Semester Registration

All graduate students are required to be enrolled during the semester they receive their degree. If students are not enrolled in regular course work, they must enroll for either comprehensive, thesis or dissertation continuance, or directed research, whichever is appropriate. NOTE: The continuous enrollment course GRAD 597 cannot be used during the graduation semester.

Attendance at Commencement

Students are expected to attend graduation exercises. A student unable to be present for the graduation exercises must notify the College of Graduate and Professional Programs no later than 15 working days before commencement.

Honor System

JMU operates under an Honor System that dates back to 1909. Students adopted the 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 Web site is http://www.jmu.edu/honor/.

Withdrawal

Withdrawal from Courses

A student may drop a course without special permission through the time period designated as the “add/drop period.” A student may withdraw from a course without special permission through the time period designated as the “course adjustment period.” Refer to e-campus at http://ecampus.jmu.edu/ for exact dates.

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

Withdrawal from a Graduate Program

Graduate students wishing to withdraw from their graduate program must do so by completing a Withdrawal Request form. Graduate students withdraw from their programs when they terminate enrollment before completing a regular semester or summer session for which they have enrolled. A student may withdraw from all courses during the course adjustment period without special permission by completing a withdrawal request form available from the JMU Ombudsperson, Huffman A101. The Ombudsman will review the request, determine withdrawal approval, set the official withdrawal date and notify other university officials of the action.

A student who voluntarily withdraws from his or her graduate program 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,” “WP” or “WF” in all courses. A grade of “W” will be assigned to students who withdraw from a course after the add/drop deadline but before the end of the course adjustment deadline. A grade of “WP” or “WF” (according to the status of the student at the time of withdrawal) will be assigned to students who withdraw after the course adjustment deadline at the discretion of the instructor.
It may also be necessary for a graduate student to withdraw due to extenuating circumstances. Withdrawal for extenuating circumstances must be approved by the student’s graduate coordinator and the dean of the College of Graduate and Professional Programs. A student who withdraws because of extenuating circumstances will also receive a grade of “W,” “WP” or “WF” in all courses.

Students who withdraw from their graduate program 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.

Confidentiality of Education Records

The Family Educational Rights and Privacy Act of 1974

James Madison University adheres to and annually informs students of the Family Educational Rights and Privacy Act of 1974, as amended. This act, with which the institution intends to fully comply, was designated to protect the privacy of educational records. Under the Family Educational Rights and Privacy Act (FERPA) students have certain rights with respect to their education records.

These rights include:

The right to inspect and review the student’s education records within 45 days of the day the University receives a request for access. Students should submit to the registrar, dean, head of the academic unit, or other appropriate official, written requests that identify the record(s) they wish to inspect. The University official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the University official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

The right to request the amendment of the student’s education records that the student believes are inaccurate or misleading. Students may ask the University to amend a record that they believe is inaccurate or misleading. They should write the University official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading. If the University decides not to amend the record as requested by the student, the University will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

The right to consent to disclosures of personally identifiable information contained in the student’s education records, except to the extent that FERPA authorizes disclosure without consent. One exception which permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by the
University in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the University has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility. Upon request, the University may disclose education records without consent to officials of another school in which a student seeks or intends to enroll. The following is considered “Directory Information” at James Madison University and may be made available to the general public unless the student notifies the Office of the Registrar in person or in writing within five days after the first day of class registration:

Student’s name, telephone numbers, addresses, date and place of birth, major and minor fields of study (if applicable), college of major and year (freshman, sophomore, etc.), dates of attendance, degree sought and time, degrees conferred, awards and honors conferred, participation in officially recognized activities and sports, weight and height of members of athletic teams, the most recent previous educational agency or institution attended by the student, fraternity and/or sorority and educational societies. Beginning in the fall semester of 2001, full-time/part-time status is directory information.

The right to file a complaint with the U.S. Department of Education concerning alleged failures by James Madison University to comply with the requirements of FERPA. The name and address of the office that administers FERPA is: Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Avenue, SW, Washington, DC 20202-4605.

For more detailed information concerning JMU’s records policy see James Madison University, Policies and Procedures, Policy 3102, The Family Educational Rights and Privacy Act.
Fees and Expenses

University Business Office
302 Warren Hall
Phone: (540) 568-6505
Web site: http://www.jmu.edu/ubo

Tuition and fee charges for the 2005-2006 sessions are available on the University Business Office Web site. The tuition and fees listed contribute to general maintenance and operation, instruction, and other university service costs, including recreational and health service facility costs. The fees also support student activities such as the Student Government Association, University Program Board and student publications.

The amounts listed do not include the cost of books or supplies. The university reserves the right to adjust tuition and fee charges because of rising costs or other conditions upon approval of the JMU Board of Visitors.

Refer to the Registration and Student Record Services Handbook or the University Business Office Web site for a full description of the tuition and fee rates.

Billing and Registration

Registration for the fall semester is conducted in April for returning students and in November for the spring semester. Students will be notified of the amounts due through their electronic billing statement in early August for the fall semester and mid-December for the spring semester. Thereafter, monthly statements will be posted electronically for any new charges or unpaid account balances. Students and any authorized payers will be emailed when student account charges are ready to be viewed and paid.

Students are encouraged to review their financial account for amounts due after any registration or course adjustment activity. Students may access their financial account by
Continuous Enrollment

All graduate students enrolled in graduate degree programs must register each regular semester for a minimum of one graduate credit hour from enrollment to graduation. This policy excludes summer sessions. Students wishing to be excused from the requirements of this policy because of extenuating circumstances must solicit exemption from the College of the Graduate and Professional Programs through the Leave of Absence: Continuous Enrollment option. See Page 19 for more information.

A graduate student who takes an unauthorized break in registration by failing to maintain continuous enrollment will relinquish his or her graduate standing in the university. Students who wish to be reinstated will be required to file an Application for Graduate Admission, pay the admission fee and register for one graduate credit for each term of unauthorized break in registration.

Tuition and Fees

Payment

Payment may be made by the following means.

- Remitting payment by check or cash to the University Business Office, Warren Hall, Room 302.
- Mailing a check to JMU, University Business Office, MSC 3516, Harrisonburg, VA 22807.
- Remitting an electronic check payment or credit card payment online through the electronic bill presentment, through a link on e-campus or through the University Business Office Web site at www.jmu.edu/ubo. The service is provided by an outside vendor.

Students may pay by a combination of personal check, cash, money order, cashier’s check, electronic check and credit cards. Payments drawn on foreign banks must be converted to U.S. dollars prior to transmittal to the university. The student’s account number (social security or campus ID number) should be included on all payments to ensure its application to the proper account.

Debts owed to the university are governed by the following policies.

- No credit for university work may be given to any student for a diploma, teacher’s license or transfer purposes until all debts to the university have been settled.
- Until a student’s account is paid in full, he or she will be ineligible for readmission or registration for a future semester.
- Upon recommendation of the director of the University Business Office and with the
Audit Fees

A student registering to audit a course will pay the same tuition and fees as one who registers for credit.

Specialized Class Fees

Certain courses which use off-campus facilities have additional charges which will be determined at the time the course is offered.

Examination for Credit Fee

Arrangements for attempting credit by departmental examination may be made by paying a nonrefundable $25 fee to the University Business Office and presenting the receipt to the Office of the Registrar.

Returned Check Fee

A $25 per check fee is assessed for checks returned unpaid to the university. If a check is returned, the director of the University Business Office will notify the student by e-mail. If the student does not make appropriate alternative payment as specified, the student’s class registration will be canceled and the student may be withdrawn from the university. The university will also hold the student’s records, future registration, transcripts, teaching license and diploma until the check is redeemed.

Service Fee

Electronic Student Account payments made by credit card and through e-campus will be assessed a service fee by the outside vendor. This fee is based on the total charges paid. The calculated amount is displayed separately and assessed at the time payment is made.

Eligibility for In-state Tuition

Eligibility for in-state tuition charges is based on the provisions of Section 23-7.4 of the Code of Virginia in effect on the first day of classes for each term. A link to the Code of Virginia guidelines can be found on the University Business Office Web site. This statute limits in-state tuition to those with Virginia domiciliary status. Domicile is defined as the “present, fixed home to which you return following temporary absences and at which you intend to stay indefinitely.” If there is any question of the right to classification as a domicile of Virginia, it is the student’s obligation, prior to the first day of classes for the semester, to raise the question with the University Business Office.
To qualify for in-state tuition, a graduate 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 or she was domiciled in Virginia and had abandoned any previous domicile, if such existed.

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. A matriculating student who has entered an institution and is classified as an out-of-state student shall be required to rebut by clear and convincing evidence the presumption that he or she is in the commonwealth for the purpose of attending school and not as a bona fide domiciliary.

Initial determinations of eligibility are made by the College of Graduate and Professional Programs (graduate students and continuing education and special students). Decisions on re-entry students are also made by these respective offices. To establish eligibility, an applicant must complete the uniform domiciliary status questions included in the applications for admission to the university or on the special student enrollment form. 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 College of Graduate and Professional Programs.

Once a student receives an initial determination of eligibility, he or she may appeal for a review of the application by contacting the head of the office that made the determination (director of the Admissions Office or dean of the College of Graduate and Professional Programs). 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 institutional effectiveness. If there is any question of the right to classification as a domicile of Virginia, it is the student’s obligation, prior to or at the time of registration, to raise the question with the administrative officials of James Madison University. Any party aggrieved by a final administrative decision shall have the right to petition within 30 days for a review by the Circuit Court of Rockingham County.

Returning students may apply for reclassification from out-of-state to in-state status through the University Business Office. Denial of a request for such reclassification may be appealed within 30 days to the assistant vice president for finance with a final appeal within 30 days to the Residency Appeals Committee. Petition for review of this final appeal must be made within 30 days to the Circuit Court of Rockingham County.

A change to in-state status may be made for a semester only when the completed application for reclassification is received in the University Business Office prior to the first day of classes for that semester. Students are responsible for paying out-of-state tuition rates until in-state status has been approved.
Part-time students cannot purchase a housing contract without prior approval of the Office of Residence Life. Students residing in university housing, except university-sponsored apartments, automatically have a comprehensive 14-Plus Meal Plan included with their housing contract. Other resident meal plans are described in the JMU Student Handbook. Residents of university-sponsored apartments are only charged for the room portion of their housing contract. These students and commuter students may purchase one of several meal plans through Card Services, Warren Hall, Room 302.

If students arrive late by 10 or fewer days, their boarding fee will not decrease. The only exception, however, is lateness because of hospital confinement. If students are late because of seven-day or longer stays in the hospital, the university will consider adjusting the board fee. Contact Card Services, Warren Hall, Room 302; (540) 568-6446 for additional information.

**Refunds**

Any overpayment of a student account can be either refunded or posted to a future semester as a payment. All overpayments are refunded to the student except for parent PLUS loans, which are refunded to the parent. Direct deposit to the student’s or parent’s bank account is strongly encouraged. Direct deposit forms can be acquired at the University Business Office at Warren Hall, Room 302, through the University Business Office Web site at www.jmu.edu/ubo or the Office of Financial Aid Web site at www.jmu.edu/finaid. If no direct deposit form is on record, then a check will be processed within 10 banking days and mailed to the student’s/parent’s home address of record.

Students who officially withdraw from the university by the deadline for fall semester or by the deadline for spring semester will be refunded all tuition and fees except the tuition and room deposit. Withdrawing after the end of this period will not reduce tuition charges. Room and board fees will be prorated from the dining hall opening date. After the deadline dates, refunds will be for only a pro rata share of the board fee.

Students who withdraw from the university due to illness certified by a physician or for unavoidable emergency or extenuating circumstances approved by the JMU Ombudsman will be refunded a pro rata share of all fees. Refunds for withdrawal from the university are calculated from the last date of attendance as approved by the JMU Ombudsman.

Students whose connection with the university terminates because of disciplinary action or enforced withdrawal will receive a pro rata refund of all fees except for the room.

**Room and Tuition Deposits**

**New Students**

For new students, a deposit of $250 is required to confirm their acceptance of the offer of...
admission. When a student pays the deposit, the money is applied to the student’s account. The deadline for this deposit is May 1. Refunds after the stated deadlines will be made only for personal illness certified by a physician or other extenuating circumstances approved by the assistant vice president for finance.

**Returning Students**

For returning students who want to live in university residential facilities, a signed room and board contract must be submitted to the Office of Residence Life, Huffman Hall, Room A101. A contract fee will be billed through the student’s financial account.
Financial Assistance

For information regarding assistantships, contact the College of Graduate and Professional Programs

17 West Grace Street, MSC 6702
Phone: (540) 568-7065
Web site: http://www.jmu.edu/cgop/assistantships.shtml

For information on Scholarships, Grants and Loans, contact the Office of Financial Aid and Scholarships

Warren Hall, MSC 3519
Phone: (540) 568-7820
Web site: http://www.jmu.edu/finaid/

Assistantships

Each year, James Madison University makes available approximately 2.25 million dollars for graduate study tuition assistance and stipends through the graduate assistantship program. Although limited in number, assistantships contribute significantly to academic and non-academic areas of the university. Assistantships provide financial assistance to qualified students who otherwise might be unable to pursue graduate degrees. They also offer opportunities for students to gain worthwhile teaching and other experiences relevant to their chosen disciplines.

Students will be awarded assistantships for a maximum of four academic semesters (exclusive of summer session) in most masters' and educational specialist degree programs and a maximum of three years in the Master of Fine Arts and doctoral programs. Assistantships are limited to nine paid graduate hours of tuition each fall and spring semester, although contracts are usually written for an academic year. Students must pay for any additional hours each semester at the tuition rate based on residency status. Tuition
will be covered at the on-campus rate for the hours stated on the contract. Any additional charges for Web-based courses will be responsibility of the student. Under no circumstances will payment from assistantship funds be used for audited course work or undergraduate hours. Assistantships do not cover student’s room and board expenses. No tuition or stipend is paid through the assistantship program for summer hours.

**Classification of Assistantships**

**Doctoral Assistant**

A Doctoral Assistant is assigned to an academic department to assist faculty members in their responsibilities of teaching and/or research. Students in doctoral programs may also serve as Teaching Assistants. Doctoral Assistants must be enrolled in a doctoral program at JMU. Some Doctoral Assistantships may cover more than the regular amount of tuition, may pay a higher stipend and may remain in effect through all or part of the summer term.

**Graduate Assistant**

A Graduate Assistant is assigned to an academic department, support program or administrative office to assist faculty members in preparing for instruction, leading discussion groups, grading papers, conducting research, preparing laboratories, performing departmental administrative tasks, etc. Specific duties will vary according to the needs of the department.

**Teaching Assistant**

A limited number of Teaching Assistantships are available in departments offering major programs of graduate study. A Teaching Assistant is assigned to an academic department and is required to instruct one course or three credit hours of course work each semester or an equivalent of three credit hours of laboratory work each semester. Students may also be awarded a teaching assistantship to assist other professors within the department with instructor related duties. Teaching assistants must have completed a minimum of eighteen (18) hours of appropriate graduate course work. A teaching assistant must be directly supervised by a graduate faculty member.

**Assistantship Hours**

In accordance with university policy guidelines, graduate assistants will provide an average of 20 hours of assistance each week. Graduate assistants cannot be asked to perform more than an average of 20 hours per week unless special permission is granted from the College of Graduate and Professional Programs. Visa requirements stipulate that international students may not in any circumstances work more than 20 hours per week. Students may not begin their assignment prior to completion and submission of all required forms.
Additional JMU Employment For Graduate Assistants

Graduate students receiving stipends from Virginia state funds are occasionally permitted to accept JMU employment in addition to the 20 assistantship hours. Permission for such employment must come from the College of Graduate and Professional Programs, in response to a request by the student’s graduate coordinator or adviser. The student and the coordinator or adviser should carefully consider the overall effect of additional employment on the student’s academic performance.

Application for Assistantships

Academic Load

The following academic load guidelines apply to all graduate assistants.

Graduate assistants must:

- Carry nine credit hours each semester.
- Receive prior approval from the graduate program coordinator when planning to register for more than nine credit hours.
- Pay for any additional credit hours above the nine paid for by their assistantships.
- Pay for the additional cost of any Web-based courses.
- Not take fewer than nine credit hours without prior written approval from the College of Graduate and Professional Programs. This underload of classes to no fewer than six credit hours is allowed only once during a graduate career.

Criteria

To be eligible for assistantship consideration, students must:

- Be conditionally or unconditionally accepted into a specific graduation program (provisionally accepted students are not eligible for assistantships).
- Have official transcripts on file indicating completion of the baccalaureate degree from a regionally accredited institution.
- Carry a full course load during the period of the assistantship.

Deadlines

Some academic units may require specific deadlines for assistantship applications. Consult the appropriate academic unit for their application deadline.

Tuition

For tuition to be covered by the assistantship, all graduate assistants must register each semester for all courses during the regular registration period(s) and prior to the tuition refund date as outlined in the Registration and Student Record Services Handbook.
Students who register for any additional courses after this time will be held personally responsible for additional tuition and fees. Students who drop courses after the add/drop deadline but before the end of the course adjustment deadline will be held responsible for fees and will receive a grade of "W" for the course. A grade of "WP" or "WF" (according to the status of the student at the time of withdrawal) will be assigned at the discretion of the instructor to the students who withdraw after the course adjustment deadline. The "WP" or "WF" will be recorded and remain on the student's transcript. Exceptions will be made only for documented extenuating circumstances and will be handled on a case-by-case basis.

**Conditions of Continuation in Assistantship**

Graduate Assistants are required to be making significant progress toward their degrees, which means they must:

- Carry nine hours of graduate course work each semester. Underload approval is required if a Graduate Assistant is not registered for nine graduate hours each semester. Underloads are not approved for less than six graduate credits. Only one underload may be granted during a Graduate Assistant’s program of study.
- Maintain at least a 3.0 graduate GPA in order to retain or reapply for the assistantship.

**Federal Financial Assistance Programs**

The Office of Financial Aid and Scholarships helps qualified students secure a financial aid package designed to meet their financial needs. In most cases, students who have earned a bachelors degree are no longer eligible to receive federal and state grants, with the exception of the tuition portion of the assistantships mentioned in the prior sections, which may use state dollars to fund the waiver. Therefore, the award package for graduate students generally consists of loans and work-study.

Students interested in information on financial assistance programs should contact the Office of Financial Aid and Scholarships at the above address or send e-mail to finaid@jmu.edu. Information about financial aid and scholarships at JMU can also be found through a variety of links at www.jmu.edu/finaid. A general overview of the aid process and basic consumer information can be found by reading the JMU Terms and Conditions of Financial Aid document at the same Web site.

**Application Procedures and Deadlines**

All financial aid applicants must undergo a standardized federal "needs analysis" by completing the Free Application for Federal Student Aid (FAFSA). Because of intense competition for scholarships and grants at JMU, it is essential that applicants ensure their FAFSA has reached the federal government by March 1 prior to the academic year for which they are seeking financial assistance to receive priority consideration for the coming school year. Failing to file by the priority filing date may cause delays in receiving aid and can result in lower aid packages.
A student must complete a FAFSA before financial aid eligibility can be determined for the following sources of aid:

- Federal Subsidized Stafford Loan
- Federal Unsubsidized Stafford Loan
- Federal Perkins Loan
- Federal Work-Study Program
- Need-based Foundation Scholarships

When a student files the FAFSA, the federal processor calculates their Expected Family Contribution (EFC). The EFC is an estimate of the family’s ability to contribute to the student’s overall educational expenses for one year. The student’s financial aid “need” is JMU’s computation of educational expenses (Cost of Attendance described later) minus the EFC.

Financial aid recipients must complete the FAFSA each school year. Amounts and types of assistance may vary from year to year. If funds are available, the Office of Financial Aid and Scholarships continues to assist students who meet the following conditions:

- Complete the FAFSA, with priority given to those who apply by the priority filing date of March 1, prior to the academic year for which they are seeking financial assistance.
- Meet the general eligibility requirements for aid as defined by the FAFSA
- Maintain Satisfactory Academic Progress (described later)

Students who are offered financial assistance by JMU will receive a financial aid award notice indicating the source(s) and amount(s) of assistance. This notice is generally sent to the students’ JMU e-mail account and directs them to e-campus to complete the acceptance process. The aid notice and financial aid section of e-campus contain important information so the recipient should read them very carefully before accepting any offered financial aid. If any of the information is not correct, or if the student has any questions, he or she should immediately contact the Office of Financial Aid and Scholarships. Financial aid is awarded based on FAFSA information, as well as the student’s status at JMU (e.g., class status, enrollment level and residency). Federal and state regulations also require the Office of Financial Aid and Scholarships to consider any outside sources of aid when awarding financial aid. These outside sources can be JMU scholarships, private scholarships, veteran’s benefits, tuition waivers, etc. It is possible for a student’s financial aid award to fluctuate throughout the year if any of the FAFSA information, JMU status or outside aid status changes. Financial aid notices are usually sent to returning students in early summer. New students may receive aid notices in the spring prior to enrollment.

Cost of Attendance

An important part of determining a student’s eligibility for financial aid is determining a Cost of Attendance. In accordance with federal regulations, JMU has developed a Cost of
Attendance (i.e. budget) for anticipated expenses a student may incur during the current school year. These expenses include tuition, room, board, books and supplies, travel expenses, and personal expenses. Room and board can be residence hall or off-campus housing expenses depending a student’s response on the FAFSA. Expenses are also considered for students who live at home with parents or relatives, but it is a lesser dollar amount than for those living elsewhere. Travel expenses include items such as gasoline, vehicle maintenance and insurance. Personal expenses include things such as laundry, entertainment and clothing. Many of the items in the Cost of Attendance are estimates, so it’s possible for a student to spend more or less than we anticipate during any given year.

**Employment**

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

**Equal Opportunity Employment**

James Madison University does not discriminate on the basis of race, color, national origin, religion, gender, age, veteran status, political affiliation or disability (in compliance with the Americans Disabilities Act) with respect to employment or admissions, or in connection with its programs or activities.

Inquiries or requests for reasonable accommodation may be directed to the activity coordinator, the appropriate university office, or the Office of Equal Opportunity, MSC 5802, 1017 Harrison Street, Harrisonburg, Virginia, 22807, phone (540)568-6991, FAX (540)568-7992, TDD (540)568-2278. More information is available through the Office of Equal Opportunity Web site at [http://www.jmu.edu/affirmact/](http://www.jmu.edu/affirmact/).

**Satisfactory Academic Progress**

To be academically eligible to receive financial assistance, students must be making satisfactory progress toward graduation as defined by the College of Graduate and Professional Programs. For more information regarding Satisfactory Academic Progress, please visit our web site at [www.jmu.edu/finaid](http://www.jmu.edu/finaid).

To be academically eligible to receive financial assistance, students must be making satisfactory progress toward graduation as defined by the College of Graduate and Professional Programs.

**Student Loans**
Academic Programs: Academic Units

Federal Perkins Loan

Perkins is a need-based federal loan, which is awarded to students with the highest financial need. The interest rate is fixed at 5 percent and the student does not begin repaying the loan until nine months after he or she graduates or drops below half-time status. Awards may be made as long as funds are available, and priority may be given to those who met the FAFSA priority filing date.

Federal Stafford Loan Program

Web site: http://www.jmu.edu/finaid

The Stafford Loan (subsidized and unsubsidized) is a long-term, low-interest loan, for which undergraduate, graduate and professional students may apply. The interest rate is variable, but is capped at 8.25 percent. For a subsidized loan, the government will pay the interest while the student is in school. For an unsubsidized loan, the student can either pay the interest in school or have it capitalized (i.e. added into the principle). Payments on the principle amount do not begin until the student graduates or drops below half-time status.

Graduate students may borrow no more than $18,500 per year, or no more than the established Cost of Attendance, whichever is lower. Applications for the Federal Stafford Loan are available on our Web site, but students should not submit a Stafford Loan application until they have received a financial aid award notice explaining their eligibility.

Alternative Loans

Many banks are now offering credit-based alternative loans to students who either don’t qualify for the Stafford Loan or who cannot receive enough money through this loan program to cover their educational expenses. Terms of these private loans vary, but interest rates are normally higher than the Stafford Loan. The financial aid office strongly encourages students to exhaust other sources of aid before pursuing an alternative loan; however, brochures and applications are available in our office for those needing more information on these types of loans.

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 needs. These short-term loans, which range from $200 to $600, are available to undergraduate and graduate students who meet the following criteria:

- Are currently enrolled
- Are degree-seeking
- Are full- or part-time (taking at least six hours of course work)
- Are making satisfactory academic progress
Can repay the loan within 90 days

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.

**JMU Scholarships**

Web site: [www.jmu.edu/finaid](http://www.jmu.edu/finaid)

Many scholarships for students are established through the JMU Foundation and other individual departments. All scholarships are awarded through the Office of Financial Aid and Scholarships or by the appropriate college or division according to criteria set by the scholarship donor. Scholarships are awarded based upon either merit and/or need. To be considered for need-based scholarships, students must complete the FAFSA.

A listing of scholarships is available through the Office of Financial Aid and Scholarships. For information on specific scholarships, we encourage you to visit the Financial Aid and Scholarships Office or check the Web site.

**Private Off-Campus Scholarships**

Private off-campus scholarships include those scholarships awarded to specific students by outside (non-JMU) organizations. These scholarships are credited to the student’s account upon receipt of the funds. If this type of scholarship is to be used to pay tuition and fees, the funds must be received prior to the semester due date for payment of fees. Please mail all off-campus scholarships to:

University Business Office, MSC 3516

James Madison University

Harrisonburg, VA 22807

The student is responsible for compliance with the provisions of the scholarship (i.e., grade reporting, notification of attendance, etc.).

**Student Employment**

JMU employs both graduate and undergraduate students in academic, administrative or service oriented areas. Students must be degree seeking and currently enrolled to be employed in these positions. They receive payment for their services via direct deposit twice a month. There are three work programs at JMU.
Federal Work-Study Program

Federal Work-Study jobs can be part of the financial aid package for students who demonstrate high financial need as determined by their FAFSA. This is an opportunity for students to have a meaningful work experience; however, employment is not guaranteed. The student will still need to interview with the appropriate employers to secure a position. These jobs provide a student with the opportunity to earn a paycheck throughout the year, and the money earned through this program is not counted as income when the student applies for financial aid next year.

Institutional Employment

Institutional Employment positions are on campus positions available to degree seeking JMU students regardless of financial need. To obtain additional information concerning available on campus positions, refer to the job announcements at www.jmu.edu/stuemploy. There are approximately 2,000 Institutional Employment positions available on campus each year. Students may not work more than 20 hours per week in any on campus position.

Job Location & Development

The Job Location & Development Program is designed to assist students in securing off-campus, part-time employment regardless of their financial aid eligibility. The program’s Coordinator works with local employers to promote hiring JMU students and to assist with advertising their opportunities. Additionally, the program is centered on creating real-world experiences for students that will not only increase self-knowledge, but develop marketable skills that will provide a solid foundation for securing career options beyond graduation.

University Withdrawal

If you withdraw from the university, the University Business Office may adjust your charges based upon your withdrawal date and the JMU Refund Policy. For the university refund policy, refer to the University Business Office Web site at http://www.jmu.edu/ubo.

Regardless of any adjustment to your charges, if you withdraw from the university, your financial aid may be adjusted based on the percentage of the semester you completed before withdrawing. In some cases, Federal Return of Title IV Funds regulations may require that aid be returned to the federal government for students who completely withdraw from JMU before 60% of a term has been completed. Financial aid is awarded for the entire term, which is generally a 15 week period. If a student does not complete the entire 15 weeks, then the Return of Title IV Fund rules will determine how much financial aid has been earned. The student can keep that amount for the term, but the unearned part must be immediately returned to the federal government. In some situations, this will leave the student with a balance owed to the university. Funds are returned to the federal government in following order: Unsubsidized Stafford, Subsidized Stafford, PLUS, Perkins, Pell.
University Services

Academic Affairs Mission Statement

Phone: (540) 568-6616

Web site: http://www.jmu.edu/acadaffairs/mission.htm

Our mission is to provide an exceptional educational experience, designed to meet the changing needs of our students in society and dedicated to achieving the highest level of excellence within our academic programs.

We strive to focus on the student both as an individual and as a member of the global community. Our faculty are dedicated mentors who are scholars, innovative teachers, and models of responsibility and accountability. Our staff are creative and talented colleagues who are committed to providing a supportive environment that facilitates learning and development.

Administration and Finance Mission Statement

Web site: http://www.jmu.edu/adminfinance/

The Division of Administration and Finance is committed to the preparation of students to be educated and enlightened citizens who will lead productive and meaningful lives. The division supports the university’s commitment to excellence by empowering our staff to communicate effectively with the university community and provide proactive approaches to satisfy customer expectations.

Student Affairs and University Planning Mission Statement

Phone: (540) 568-3685

Fax: (540) 568-2338
Academic Programs: Academic Units

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

**Business Services**

**Bookstore**

211 Bluestone Drive, MSC 2902

Phone: (540) 568-6121

Web site: [http://www.jmu.edu/bookstore](http://www.jmu.edu/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

**Card Services**

Warren Hall, Third Floor, MSC 3532

Phone: (540) 568-6446

Fax: (540) 568-1749

Web site: [http://www.jmu.edu/cardctr/](http://www.jmu.edu/cardctr/)

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 convenience store, postal services, University Health Center, University Recreation Center, Printing Labs located across campus, Masterpiece Theatre, Parking Services, UPB...
movies, on-campus vending machines, Warren Hall Ticket Office and all dining services locations as well as many off campus locations.

For more information on JAC, declining balance accounts and meal plans, including prices, restrictions and guidelines, contact Card Services.

**Copy Center**

Medical Arts Suite 31, MSC 5722

Phone: (540) 568-3263

Fax: (540) 568-3832

HHS, Room 1002, MSC 4311

Phone: (540) 568-8731

Fax: (540) 568-8736

The University Copy Centers are owned and operated by the university as a service to the campus community. There are two locations conveniently operating extended hours and providing a full range of photocopying services. Academic coursepack service, copyright permission service, full color copying, digital copying and digital file storage, network printing, binding, laminating and express photocopying service is available. Hours of operation vary according to location. All centers are closed for university holidays.

**Dining Services**

Gibbons Hall, Entrance 7, MSC 0901

Phone: (540) 568-6751

Fax: (540) 568-3478

Web site: [http://www.jmu.edu/dining/](http://www.jmu.edu/dining/)

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 the entire campus in 14 different venues across campus, ranging from espresso bars to cheeseburgers.

Students need Dining Services in varying amounts and ways. Those who live on campus rely heavily on the department for both sustenance and an enhanced quality of life. Full-time
and part-time students residing off campus usually need fewer on-campus meals, but Dining Services provides a haven for between classes. In addition to being a source of good, nutritious meals, the various dining facilities offer a way to join in campus life and make friends.

To meet the varied needs of individual students, Dining Services provides different meal plans. All on-campus residents may choose from among three meal plans, which come with the “Student Housing and Food Contract.” They are the 19-Meal Plan, the 14-Meal Plan and Any-11-Premier Meal Plan. All of these plans provide the student with more good food at less cost per meal than any other means available. Commuters, who do not automatically have meal plans, may purchase any of the on-campus plans and have the additional options of a ten, five and three meal plan.

The department also offers declining balance accounts that operate similar to a debit card. Students using this plan, called Dining Dollars, get a 5-percent discount and pay no sales tax on anything they buy. Cash sales are also welcome at all Dining Services locations.

For information, questions or to purchase meal plans, call Card Services or stop by Warren Hall, Third Floor. Brochures and information may be obtained from the Dining Services Administration Office located in Gibbons Hall, Entrance 7.

**Parking Services**

Parking Deck, 381 Bluestone Drive, MSC 1301

Phone: (540) 568-3300

Web site: [www.jmu.edu/parking/](http://www.jmu.edu/parking/)

All vehicles parked on property owned, operated or leased by James Madison University are required to display a valid JMU parking permit. For information regarding the university’s parking regulations refer to the Parking and Traffic Regulations Handbook. A copy of the handbook may be obtained free of charge upon request at the Parking Services office. Updated information can be obtained throughout the academic year by accessing our Web site. For additional questions and concerns contact Parking Services between 7:00 a.m. and 4:30 p.m. Monday through Friday.

**Community Service-Learning**

Wilson Hall, Room 201, MSC 1011

Voice: (540)568-2373

Fax: (540)568-6719
Community-service programs allow students to learn and develop through active participation in thoughtfully organized community service. Students, faculty, staff and community agencies partner to help prepare students for lifelong community service and civic engagement. Alternative break programs are student led and developed service trips to locations in the United States and abroad. Most trips occur spring break week, but trips may be offered during any academic break. America Reads and Community Work Study, part of the Federal Work Study financial aid program, place students in elementary schools to tutor in reading and in community service agencies that address a variety of community needs.

**Counseling & Student Development Center (CSDC)**

Varner House, Room 101, MSC 0801

Phone: (540) 568-6552

Fax: (540) 568-8096

Web site: [http://www.jmu.edu/counselingctr/](http://www.jmu.edu/counselingctr/)

The CSDC provides free, confidential personal counseling services to all full-time JMU students. Appointments can be made in person or over the phone (568-6552). After-hours crisis services may be accessed by contacting the Office of Public Safety (568-6911).

Counseling at the CSDC frequently involves issues such as relationship problems, self-esteem, depression, anxiety/stress, eating and body image concerns, and difficulty adjusting to college life. Services include:

- **Personal Counseling**: Individual counseling provides students with the opportunity to freely explore any personal problems or concerns which have a negative impact on the quality of their lives. Students are limited to ten sessions per academic year. Students who request or require longer-term treatment are referred to community resources.

- **Group Counseling**: Each semester, students may participate in small group experiences on issues related to their needs (e.g., depression, eating disorders, anxiety, grief, etc.).

- **Substance Abuse Counseling**: Screening, assessment, referral, education, individual counseling, and group counseling are available to students struggling with alcohol or other drug issues.

- **Psychiatric Services**: A limited number of psychiatric hours are available to students engaged in ongoing counseling at the CSDC.

- **Consultation**: In person or over the phone, the CSDC provides consultation to students, faculty, staff, and others who are concerned about the unusual, problematic, or potentially harmful behavior of others.

- **Outreach Programming**: Workshops on a wide variety of mental health topics may be requested by visiting the CSDC online at [http://www.jmu.edu/counselingctr/](http://www.jmu.edu/counselingctr/).


- **Peer Mentor Program:** This Program is designed to help first year and transfer multicultural and international students make a successful transition from high school to the university.

- **Certificate Programs:** The Interpersonal Skills Certificate Program helps students to develop the abilities and confidence necessary to effectively deal with a variety of social, emotional, and academic situations. The Anger Management Certificate Program gives students the opportunity to examine their personal responses to anger and to learn more productive ways to deal with this emotion.

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**Disability Services**

Wilson Hall, Room 107

Voice/TDD: (540) 568-6705

Fax: (540) 568-7099

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

The Office of Disability Services ensures that the university complies with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA). Section 504 and the ADA guarantee the rights of all students with documented disabilities equal access to an education, which is limited only by personal ability and not by their disability.

Our mission is to assist the university in creating an accessible community where students with disabilities have an equal opportunity to fully participate in their educational experience at JMU. We cooperate through partnerships with students, faculty and staff to provide reasonable accommodations, services and programs that enable equal access and encourage and assist students in the development of independence, responsibility and effective self-advocacy.

Individuals eligible for services include, but are not limited to, those with

- Learning disabilities
- Attention Deficit/Hyperactivity Disorder
- Mobility/Orthopedic impairments
- Deaf and hard of hearing
- Blindness and low vision
- Traumatic brain Injuries
- Chronic illnesses such as diabetes, cystic fibrosis, epilepsy, etc.
- Psychiatric disorders

Depending on an individual's special needs, the following services may be available to JMU students with documented disabilities:

- Assessment of disability-related needs
- Specialized academic advising
- Consultation/Liaison with faculty and other university departments
Academic Programs: Academic Units

- Academic support services
- Learning strategies Instruction
- Alternative testing accommodations
- Special housing requests
- Books on tape
- Paratransit – campus transportation services for students with mobility impairments

To provide effective and reasonable accommodations, documentation of a disability is required. All documentation must:

- Demonstrate comprehensive assessment
- Give a current profile of functioning and needs
- Clearly state the functional impact of the disability upon a major life function
- Be documented by appropriately credentialed specialists
- Meet all guideline requirements for the specific disability

Disabilities involving learning (such as learning disabilities, ADD or ADHD, and traumatic brain injuries, must also:

- Be assessed on an adult scale
- Include a full psychoeducational test battery

For complete and detailed guidelines refer to

http://www.jmu.edu/disabilityser/Documentation.shtml

Contact Disability Services for more information on how to secure accommodations for students with disabilities or information about policies, procedures and resources regarding services for students with disabilities.

**Multicultural Student Services**

Warren Hall, Room 245, MSC 3504

Phone: (540) 568-6636

Fax: (540) 568-3360

Web site: [http://www.jmu.edu/multicultural](http://www.jmu.edu/multicultural)

Multicultural Student Services celebrates the diversity of our students by fostering student growth and development, heightening awareness, and educating our constituents regarding ethnic and cultural diversity.

Our purpose is

To assist the university in its goal of recruitment of multicultural students, faculty and staff
To increase the retention of multicultural students through a host of program services designed to assist these students in achieving their academic and career aspirations
To encourage the development of a climate in which the accomplishments of multicultural students are appreciated
To create an environment through which multicultural students can continue to be an active part of the mainstream of campus life

The office works diligently to provide the following services:

Recruitment and Retention

- Site visits and recruitment fairs
- Mentor program
- Educational skills development
- Pre-collegiate programs: Male Academy and Female Institute

Cultural Programming and Awareness

- Campus wide events featuring our multicultural education series, special programs and performances
- Educational activities including diversity workshops
- Social activities such as homecoming step show, dances and receptions

Student Support

- Monthly newsletter
- Semester cultural calendar
- Resources & referrals to our library, scholarship and internship information
- Student Organization advising
- Assessment and evaluation

Leadership Development

- Organizational Roundtable
- Leadership Training Programs
- Assistance or sponsorship for multicultural student leadership conferences

Office of Equal Opportunity

1017 Harrison St., Harrisonburg, VA, 22807, MSC 5802
Voice/TDD: (540) 568-6991
Fax: (540) 568-7992
Web site: http://www.jmu.edu/affirmact/
The Office of Equal Opportunity promotes the practice of and adherence to the equal opportunity policies of James Madison University. Bringing diversity to JMU, the program assists in the identification and recruitment of qualified individuals who normally have been underrepresented in the university. It also sponsors workshops on various subjects such as sexual harassment, disabilities, affirmative action, etc. The Office of Equal Opportunity also provides a place where individuals who feel that they have been subjected to harassment or discrimination due to race, color, national origin, religion, gender, age, veteran status, political affiliation or disability can file a complaint for an impartial resolution. Inquires may directed to the Office of Equal Opportunity.

Office of Judicial Affairs

Fredrickson C 101, MSC 2901
Phone: (540) 568-6218
Fax: (540) 568-2807
Web site: http://www.jmu.edu/judicial

The Office of Judicial Affairs is committed to promoting student learning, civic responsibility and, in partnership with others, developing the environment necessary for the university to best achieve its educational mission. For further information about the Office of Judicial Affairs, call or visit our Web site.

Ombudsperson

Huffman Hall, Room A101, MSC 2401
Voice: (540) 568-2804
Fax: (540) 568-6280

The president of the university has empowered a member of the student affairs staff to serve as ombudsperson. The Ombudsperson is committed to providing students with impartial, independent and confidential support regarding university policy, procedure and regulations. Through collaboration with the student, the Ombudsperson:

- Facilitates the resolution of student issues and concerns
- Provides direction to students on procedure and regulations
- Provides confidential, impartial facilitation of communication

Public Safety

Shenandoah Hall, MSC 6302
The Office of Public Safety consists of law enforcement and safety services. The office supports and advances the educational purposes of the university through the provision of a safe and secure environment for learning, working and personal development.

**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 weeknight 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. When cadets are off duty, university police officers escort students as needed.

**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.

**Residence Life**

Huffman Hall, MSC 2401

Phone: (540) 568-6275

Fax: (540) 568-6280

Web site: [http://web.jmu.edu/reslife/](http://web.jmu.edu/reslife/)

The Office of Residence Life oversees multiple functions related to living and learning at James Madison University. Offices and programs within the department focus on student learning, student development, and successful transitions throughout the university experience. This department includes the First-Year Involvement Center (FYI), Residential Learning Programs, Housing Operations and Business Operations.
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.

Student Government Association

Taylor Hall, Room 203, JMU Box 3523
Phone: (540) 568-6376
Fax: (540) 568-6377
Web site: http://sga.jmu.edu/

Students, faculty and administration share the responsibility for governing JMU. They are represented on the University Council, on its commissions and on standing and special committees reporting to these bodies.

The Student Government Association collectively represents the university student population. SGA promotes the welfare of students by providing the medium through which students can actively voice their concerns, and by serving as a liaison between the students, faculty and administration at JMU.

Student Handbook

Web site: http://www.jmu.edu/judicial/handbook.shtml

The student handbook contains a wealth of information about university policies and regulations, university facilities and student organizations.

The student handbook can be accessed online at www.jmu.edu/judicial/handbook.shtml.

University Health Center

University Health Center, MSC 7901
Phone: (540) 568-6178
Fax: (540) 568-7803
Web site: http://www.jmu.edu/healthctr/
The University Health Center is committed to providing quality medical care and health education focused on helping students learn more about their personal health and wellness and treating acute illnesses and concerns. The center is staffed by the following personnel:

- Physicians, nurse practitioners and registered nurses who administer health care in a confidential and professional manner
- The Office of Sexual Assault Prevention and the Women’s Resource Center offers consultation, crisis intervention, programming and referral services. This office is located in Warren Campus Center, Room 404 or can be reached by calling (540) 568-2831.
- Health and wellness educators, and a registered dietician who provide resources and information on health concerns, wellness issues and conduct programs of interest in the residence halls and for student organizations. They also administer the REACH (Reality Educators Advocating Campus Health) Peer Education Program. Topics include substance abuse, sexual health, general health, eating disorders and nutrition.
- Clinical staff that participate in a multidisciplinary team for abnormal eating and exercise behaviors

To be eligible for treatment, students must have a current, completed health record on file at the University Health Center. Furthermore, the Code of Virginia requires that all full-time students provide documentation of their immunizations.

University Recreation

University Recreation Center, MSC 3901

Phone: (540) 568-8732

Fax: (540) 568-8701

Web site: [http://www.jmu.edu/recreation/](http://www.jmu.edu/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 University Recreation programs are administratively housed in the University Recreation Center (UREC) located near the JMU Convocation Center. A valid JMU Access Card (JAC) is needed to enter the building. Program areas include Adventure, Aquatics and Safety, Fitness and Nutrition, Group Fitness and Wellness, Intramural and Informal, and Sport Clubs and Youth Programs. Registration is available online for Group Fitness Classes and for Intramural Sports. All other programs can be registered for in person at the UREC Welcome Center.

The University Recreation Center houses a multi-level fitness and wellness center with 140,000 square feet of activity space. Building highlights include a 33-foot climbing wall, 7
racquetball courts, 4 basketball/volleyball courts, indoor track, cardio theater, indoor pool/sauna/spa area, locker rooms, outdoor courtyard with sand volleyball, outdoor turf field, outdoor low ropes course and group fitness/multipurpose studios. UREC also houses an Equipment Center where sports and camping/outdoor equipment can be checked out or rented.

**University Unions**

Taylor Hall, Room 205 B, MSC 3501  
Phone: (540) 568-3341  
Fax: (540) 568-6444  
Web site: [http://www.jmu.edu/ucenter/](http://www.jmu.edu/ucenter/)

The University Unions department responds to the needs of the entire JMU community, through facilities, services, programs and resources. The Unions provide experiential learning opportunities, which support the university's mission of student learning and development.

The University Unions department reflects a broad range of programs and services, which represent all members of the university community. The University Unions facilities are the gathering places for the campus, with meeting rooms, assembly spaces, lounges and support services available. They are places where ideas come to life, learning is put into practice and the various constituencies of the campus find common ground.

The University Unions department is comprised of the following units:

**Events & Conferences**

Taylor Hall, Room 233, MSC 3501  
Phone: (540) 568-6330  
Fax: (540) 568-6444  
Web site: [www.jmu.edu/ucenter/events/](http://www.jmu.edu/ucenter/events/)

Events & 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.

**Facilities Services**
Four buildings house the programs and services which the University Unions provide for the JMU community. They are Grafton-Stovall Theatre, Warren Hall, Taylor Hall, and Festival Conference & Student Center. In addition, the University Information Welcome Center is located in Sonner Hall. The Facilities Services areas address physical building and operations concerns in these spaces.

**Student Organization Services**

Taylor Hall, Room 205 A, MSC 3501  
Phone: (540) 568-6613  
Fax: (540) 568-6444  
Web site: [http://www.jmu.edu/ucenter/sos/](http://www.jmu.edu/ucenter/sos/)

Student Organization Services houses Clubs & Organizations, Fraternity/Sorority Life, and the University Program Board and is located in Taylor Hall. SOS provides a wide range of educational, social and cultural events, as well as support services for all JMU student clubs and organizations. Student Organization Night at the beginning of each semester offers an opportunity for all students to meet members of clubs, learn about organizations and discover how to become involved with them.

**Clubs and Organizations**

Taylor Hall, Room 205A, MSC 3501  
Phone: (540) 568-6613  
Fax: (540) 568-6444  
Web site: [http://www.jmu.edu/ucenter/sos/](http://www.jmu.edu/ucenter/sos/)

Clubs and Organizations provides services to the more than 280 recognized student organizations at JMU and provides information about recognized student organizations to the JMU community. Programs provide members, officers and advisers of student
organizations with opportunities to educate themselves and improve their organizations. Students are invited to stop by and learn more about involvement opportunities at JMU. Student organizations offer students a leadership laboratory in which to apply their knowledge and skills.

**Fraternity/Sorority Life**

Taylor Hall, Room 205A, MSC 3501

Phone: (540) 568-8157

Fax: (540) 568-2382

Web site: [http://www.jmu.edu/ucenter/sos/fsl](http://www.jmu.edu/ucenter/sos/fsl)

The University Unions work with fraternities and sororities to foster cooperation and communication among the chapters, the university and the community. The staff advises the Inter-Frataternity and Panhellenic Councils and also works with the individual chapters in promoting leadership, involvement and service. The University Unions are committed to the development and growth of the fraternity and sorority community by implementing programs and workshops to facilitate the many aspects of Fraternity/Sorority Life.

**University Program Board**

Taylor Hall, Room 234, MSC 3501

Phone: (540) 568-6217

Fax: (540) 568-3424

Web site: [http://upb.jmu.edu](http://upb.jmu.edu)

Campus entertainment is scheduled through the University Program Board, a student organization advised through the University Unions. Concerts, films, speakers, trips and numerous other activities designed to complement the educational mission of JMU are arranged by the UPB. The board also solicits collaborative programs with other student organizations, university departments and schools. Committees for which students may volunteer include film, club, musical events, global awareness and contemporary issues, tickets, technical services, publicity, public relations, financial management, internal student development and communications.

**Taylor Down Under**

Taylor Hall, Room 102, MSC 3511
Taylor Down Under, located on the ground floor of Taylor Hall, includes the Off-Campus Life, TDU Services, the Corner Pocket Game Room, and Coffee Bar. The TDU lounge area was developed with the commuter student in mind but has become a popular hang out for all students. This area offers computers for student use, daily newspapers, television, evening entertainment on the TDU Stage, comfortable futons and tables and a University Information site. University Information at Taylor, operated by student employees is one of four sites across campus for front line information about JMU and the Harrisonburg community. Off Campus Life is concerned with the needs and education of our commuter students who are preparing to live off campus. OCL offers regular office hours, a Web site, updated housing listings, educational programs and conflict resolution service. The award-winning UDAP program (Utility Deposit Assistance Program) is coordinated through TDU.

University Information

Web site: http://www.jmu.edu/ucenter/uinfo/

University Information is a network of information sites located on campus to provide assistance with academics, on and off campus events, directions, area tourist sites and travel information, as well as general questions about daily life at JMU; such as who-to-go-to-for-what and what kiosks are available to check e-mail, surf the Web, and register for classes. Locations and phone numbers are below.

Welcome Center: Lobby of Sonner Hall – xUINFO; e-mail: jmu-info@jmu.edu
UI at Warren: Warren Hall, 2nd floor – x87853
UI at Festival: Festival Conference & Student Center, 2nd floor – x82592
UI at UREC: Lobby of University Recreation – x88700

Your Right To Know

Your personal safety and the security of the campus community are of vital concern to James Madison University. A copy of the university’s annual Harrisonburg (main US) campus, Washington (DC) Internship Semesters plus London (UK) and Antwerp (Belgium) branch campus security reports are available upon request.

This report includes statistics for the most recent three-year period concerning reported crimes that occurred on campus, in certain off-campus buildings or property owned or controlled by James Madison University or affiliates, and on public property within, or
immediately adjacent to and accessible from the campus. The report also includes information regarding the law enforcement authority of the university police; policies concerning campus security, such as crime prevention, alcohol and drug use, sexual assault, state sex offender registry, missing person investigation procedures and the reporting of any crimes that may occur on the campus.

You can obtain a copy of these reports by contacting the Office of Public Safety, Crime Prevention Unit, MSC 6302, James Madison University, Harrisonburg, VA 22807 or you can request that a copy be mailed to you by calling (540) 568-6766/6769. This information is also available by clicking on the “Your Right to Know” links for the Harrisonburg campus, Washington Semesters and London branch campus at http://www.jmu.edu/pubsafety/index.shtml.

Withdrawal from the University

Huffman Hall, Section A, Room 101

Voice: (540) 568-2804

Fax: (540) 568-6280

The JMU Ombudsperson assists students who are considering withdrawing from the university after the first three weeks of the semester. 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.
Academic Programs: Academic Units

Program Information: Accounting

Accounting

Phone: (540) 568-3081

Web site: [http://www.jmu.edu/accounting/MSA.shtml](http://www.jmu.edu/accounting/MSA.shtml)

Dr. Paul Copley, Director, School of Accounting

Dr. Nancy Nichols, Director, M.S. in Accounting

Professors

C. Baril, P. Copley, D. Fordham, A. Gabbin, D. Riordan, M. Riordan

Associate Professor

N. Nichols

Assistant Professors

L. Betancourt, E. Cole, R. Richardson

Admission Criteria and Degree Requirements

Admission is open to individuals with a baccalaureate degree in accounting, business or any nonbusiness discipline. Admission criteria and degree requirements for both programs are the same for all students.

Either the Graduate Management Admissions Test or successful completion of all four parts of the CPA exam is required for admission to the M.S. program. Prerequisites are based on the background and previous training of the student.

More information on general admission requirements is available from the College of Graduate and Professional Programs Web site at [http://www.jmu.edu/cgop/](http://www.jmu.edu/cgop/).
Academic Programs: Academic Units

Prerequisites

All students must be proficient with a spreadsheet program and have the following courses (or their equivalent) prior to starting M.S. course work.

Accounting Courses

- Federal Income Tax Accounting
- Intermediate Accounting I § Auditing
- Intermediate Accounting II § Cost Accounting

Business Courses

- Principles of Management
- Organizational Behavior
- Statistics
- Managerial Finance
- Micro Economics
- Macro Economics
- Business Law

For students without business undergraduate courses, the completion of five courses offered by JMU over the Internet will fulfill the business course prerequisite. Each course is the equivalent of three credit hours.

- MBA 501. Management and Organization Behavior
- MBA 502. Statistics and Management Science
- MBA 504. Managerial Finance
- MBA 505. Foundations of Economics
- MBA 506. Legal Environment of Business

Each course is offered three times a year and is 100% self-paced.

Mission

The mission of the School of Accounting’s Master of Science program is to provide a strong regional presence for advanced professional education that prepares students for success in the accounting profession by strengthening the students’ technical expertise, enhancing their understanding of professional responsibility, and improving their business skills necessary to compete in today’s complex and ever-changing business environment.

The Graduate Accounting program leads to the Master of Science in Accounting (M.S.) degree. The primary goal of the M.S. program is to prepare business and nonbusiness majors for entry into the public accounting profession. It serves as the “fifth” year in preparing students for the 150 hours of postsecondary education required for AICPA membership and required (or scheduled to be required) to become a certified public accountant in most jurisdictions.
M.S. in Accounting Program

James Madison University offers an on-campus program tailored for individuals who prefer a traditional full-time program of study. The on-campus program is also available on a part-time basis.

Concentration

Accounting Information Systems

JMU offers a specialty concentration in Accounting Information Systems (AIS). The AIS concentration requires the student to select computer or technology-related courses from the accounting and other elective courses indicated above. These courses offer the student the opportunity to gain more expertise and proficiency in areas such as network design and construction, telecommunications, systems development and programming, advanced database design, expert systems, and information security. Students completing the AIS concentration are in very high demand by employers.

Master of Science Degree in Accounting

The course work for the M.S. program consists of a common core and electives with a thesis option. Thirty credit hours must be taken at the 600 level.

<table>
<thead>
<tr>
<th>M.S. in Accounting</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Core Requirements¹</td>
<td>30</td>
</tr>
<tr>
<td>ACTG 675. Accounting Theory²</td>
<td>3</td>
</tr>
<tr>
<td>Any 600-level Finance course (approved by Director)</td>
<td>3</td>
</tr>
<tr>
<td>Accounting electives (600 level)</td>
<td>15</td>
</tr>
<tr>
<td>Electives (600 level)³</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>

¹ Electives are chosen with the approval of the program director. Prerequisites must be met before taking 600-level courses.
² This course is considered the capstone in the program.
³ Two elective must be outside of Accounting.
Academic Programs: Academic Units

Accounting Information Systems

JMU offers a specialty concentration in Accounting Information Systems (AIS). The AIS concentration requires the student to select computer or technology-related courses from the accounting and other elective courses indicated above. These courses offer the student the opportunity to gain more expertise and proficiency in areas such as network design and construction, telecommunications, systems development and programming, advanced database design, expert systems, and information security. Students completing the AIS concentration are in very high demand by employers.

### AIS Concentration

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTG 640. Accounting Information Technology.</td>
<td>3</td>
</tr>
<tr>
<td>ACTG 691. Advanced Accounting Systems.</td>
<td>3</td>
</tr>
<tr>
<td>MBA 652. Technology Enhanced Decision Making</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credit Hours</th>
</tr>
</thead>
</table>

### 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.

**ACTG 630. Seminar in International Accounting. 1-3 credits.**

Designed to develop a fundamental knowledge of the assumptions, environmental considerations and techniques underlying the collection and reporting of financial information by entities in other countries. Prerequisite: Master of Science student or permission of instructor.

**ACTG 640. Accounting Information Technology. 3 credits.**

In-depth coverage of modern technology used in the accumulation, reporting and analysis of accounting data. This course covers modem computing hardware, telecommunications, networking and intermediate systems design concepts. Also provides an introduction to information security. Prerequisite: Master of Science student or permission of instructor.
Academic Programs: Academic Units

ACTG 645. Advanced Accounting and Reporting. 1-3 credits.

Focuses on the development and use of financial information as it relates to business combinations, intercompany transactions and statements denominated in foreign currencies. Prerequisite: Master of Science student or permission of instructor.

ACTG 651. Fraud Detection and Prevention. 1-3 credits.

Covers the principles and methodology of fraud detection and prevention. Specifically addresses consumer fraud, management fraud and employee fraud. Emphasizes prevention through internal controls as well as evidence gathering techniques. Prerequisite: Master of Science student or permission of instructor.

ACTG 652. Operational Audit. 1-3 credits.

A study of the basic principles and techniques of operational auditing. Covers organizing and conducting operational audit engagements. Also addresses regulatory compliance issues. Prerequisite: Master of Science student or permission of instructor.

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

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

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. Because this is the capstone course, a grade of "B" or better is required for this course for successful completion of the MSA program. 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 Assurance Theory and Practice. 3 credits.

Study of auditing and assurance topics from both a professional and research perspective. Students will have opportunities to develop various ideas and skills necessary to become leaders in the auditing and assurance services arena. Contemporary professional standards will be reviewed as well as the theories behind these standards. Prerequisite: Master of Science student or permission of instructor.
ACTG 678. Governmental Accounting and Reporting. 1-3 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 681. Directed Research. 3 credits.

Opportunity for directed research 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. Prerequisite: Master of Science student or permission of instructor.

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

Study and evaluation of selected areas of financial accounting theory and practice. This course emphasizes financial reporting and disclosure. Prerequisite: Master of Science student or permission of instructor.

ACTG 694. Business Practicum for Accountants. 3 credits.

Through the Graduate Accounting Internship Program, students engage in a supervised work experience in public accounting, industry, not-for-profit organizations or government. During this time students gain insight into the real world of business through their work in 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. Prerequisite: Master of Science student or permission of instructor.
**ACTG 696. Practicum in Tax. 1-3 credits.**

Involves preparation of federal and state income tax returns for individuals as part of the Voluntary Income Tax Assistance program. The program provides tax compliance services primarily for individuals who cannot afford professional tax services. 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.
Academic Programs: Academic Units

Program Information: Art and Art History

Art and Art History

Phone: (540) 568-6216

Website: http://www.jmu.edu/art

Dr. Leslie Bellavance, Director

Dr. Susan Zurbrigg, Graduate Coordinator

Professors
K. Arthur, C. Diop, L. Halpem, B. Lewis, K. Szmagaj, C. Welter

Associate Professors
D. Ehrenpreis, K. Schwartz, W. Wightman

Assistant Professors

Instructor
S. Downs

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.

**Degrees and Concentrations**

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**

**Mission**

The mission for the Master of Fine Arts Program is to challenge and support independently motivated artists in their intellectual, philosophical and artistic development. The graduate program encourages lifelong learning, career success and community involvement.

**Goals and Objectives**

- To provide an environment allowing for further development of the candidate’s creative endeavor.
- To help the candidate to develop artistic skills to a level which will lead to successful performance in the world beyond the university.
- To promote the candidate’s ability to develop philosophical, aesthetic and conceptual modes of individual inquiry.
- To develop a candidate’s deepened knowledge in their chosen areas of artistic pursuit.
- To develop candidates who demonstrate a professional studio competence as exemplified by the production of a significant body of work and supported by a written monograph.

**Program Requirements**

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 and sculpture.

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 student’s growth and potential merit continuation in the Master of Fine Arts program. Each semester, graduate faculty will conduct 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 six 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 College of Graduate and Professional Programs and the application is supported by slides, transcripts and artwork from the courses taken at other institutions. No more than nine hours of transfer credit will be accepted in the student's area of concentration.

<table>
<thead>
<tr>
<th>Master of Fine Arts Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Requirements</td>
<td></td>
</tr>
<tr>
<td>Studio (21-credit-hour minimum within a concentration)</td>
<td>39</td>
</tr>
<tr>
<td>Art history</td>
<td>12</td>
</tr>
<tr>
<td>Criticism</td>
<td>3</td>
</tr>
<tr>
<td>Electives (art or non-art)</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>60</td>
</tr>
</tbody>
</table>
Master of Arts Degrees

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.

Master of Arts in Art History

Mission

The M.A. in art history is designed for those who wish to prepare for a doctoral program of study, or seek entry level positions in museums, galleries, arts organizations, art-related government agencies and businesses. It also provides advanced art historical study for Virginia teachers, or those who are intending to teach in public schools or other educational institutions.

Goals

- To provide training in critical thinking and methodologies
- To encourage in-depth study of a particular cultural/historical area
- To provide students with research and writing skills for advanced graduate study
- To promote general scholarly inquiry in art history and an appreciation of the interaction of culture and art

Program Requirements

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. Students must also successfully complete a language exam demonstrating reading proficiency in either German or French. Students may petition to be examined in another language if it is directly relevant to their course of study.

Check with the department office for the availability of this program.

<table>
<thead>
<tr>
<th>Master of Arts in Art History Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Requirements</td>
</tr>
<tr>
<td>Art history</td>
</tr>
<tr>
<td>Internship or directed study</td>
</tr>
<tr>
<td>Electives</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
Master of Arts in Art Education

Mission

The Master of Arts in Art Education at JMU is a graduate program for certified art educators dedicated to excellence in teaching and directing comprehensive art education programs in schools, museums, art organizations, or in the private sector. The program includes in-depth analysis of the methods and techniques for teaching studio art, art history, art criticism, and aesthetics. The program promotes graduates who are: 1) dedicated art education professionals; 2) articulate art education advocates; and 3) charismatic leaders who demonstrate art education as a vital component of general education.

Goals

- To provide students with the structure, skills, core concepts, and methods of inquiry for teaching and directing comprehensive art education programs, including: aesthetics, art criticism, art history, and studio production.
- To provide students with opportunities to create and evaluate art instructional opportunities that is adapted to diverse learners.
- To provide opportunities for students to demonstrate an extensive range of strategies for teaching and evaluating art instruction, including the use of technology.
- To foster active inquiry, collaboration, and supportive interaction among students for developing thesis papers and projects.
- To deepen a student's knowledge in a specific area of art education scholarly interest.
- To provide students with access to the latest research on how children learn and develop and how culture influences human development and creative artistic expression.
- To provide students with access to the latest research on how children learn to understand, appreciate, create, and judge works of art.
- To provide students with opportunities to apply research to art lessons that support intellectual, social, and personal development.

Program Requirements

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.

Check with the department office for the availability of this program.
### Master of Arts in Art Education Requirements

<table>
<thead>
<tr>
<th>Minimum Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art Education</td>
<td>9</td>
</tr>
<tr>
<td>Art history</td>
<td>6</td>
</tr>
<tr>
<td>Criticism</td>
<td>3</td>
</tr>
<tr>
<td>Thesis</td>
<td>6</td>
</tr>
<tr>
<td>Education/Art Education Electives</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>

### Master of Arts in Studio Art

**Mission**

The mission for the Master of Arts Program in Studio Art is to support artistic growth beyond the level of the baccalaureate. Although the goals for the M.A. reflect those of the M.F.A., the M.A. degree is viewed as an option for studio study, which doesn’t result in a terminal degree in the visual arts.

**Goals**

- To develop and improve artistic skills in two and three-dimensional art.
- To promote the candidate’s ability to develop ways of individual inquiry.

**Program Requirements**

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 six 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.

<table>
<thead>
<tr>
<th>Master of Arts in Studio Art Requirements</th>
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<tr>
<td>Minimum Requirements</td>
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<tr>
<td>Studio</td>
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<tr>
<td>Art history</td>
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<td>Criticism</td>
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<td>Electives</td>
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**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 area in the College of Education.

**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
AR TH 540. Early Medieval Art
AR TH 542. Art of Later Middle Ages
AR TH 544. Gothic and Gothic Revival Architecture
AR TH 546. Italian Renaissance Art
AR TH 548. Studies in Leonardo and Michelangelo
AR TH 549. Topics in Renaissance Art
AR TH 550. Baroque Art
AR TH 552. Eighteenth Century Art
AR TH 560. Nineteenth Century Art
AR TH 569. Topics in Nineteenth Century Art
AR TH 570. Modern Art from 1900-1945
AR TH 572. Modern Art Since 1945
AR TH 574. New Media and Contemporary Art
AR TH 576. Modern Architecture
AR TH 579. Topics in Modern Art
AR TH 580. American Art to 1870
AR TH 582. American Art from 1870
AR TH 584. Art of the Americas
AR TH 586. Monticello
AR TH 589. Topics in American Art
ART/AR TH 590. Topics in Art and Art History
ART/AR TH 594. Introduction to Museum Work
Academic Programs: Academic Units

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

http://www.jmu.edu/cgi/GradCatalog/05/Art.htm (9 of 18) [7/16/2008 1:41:43 PM]
Academic Programs: Academic Units

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: North and East Africa. 3 credits.

An advanced survey of the arts and cultures of northern and eastern Africa. Coverage will include: prehistoric rock arts, ancient Egypt and Sudan, ancient North Africa, Greco-Roman Egypt and North Africa, Christian Egypt and northeastern Africa, and Islamic north and east Africa.

ARTH 512. African Art: West, Central, and Southern Africa. 3 credits.

An advanced survey of the arts and cultures of sub-Saharan Africa. The diverse, rich heritage of Africa’s arts will be explored by focusing on the major style areas of west, central, and southern Africa.

ARTH 516. Arts of Oceania. 3 credits.

Advanced study of 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.

Advanced 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. Prerequisite: GARTH 205, GARTH 206, ARTH 210 or permission of the instructor.

ARTH 520. Ancient Art. 3 credits.

An advanced study of major works selected from the Egyptian, Mesopotamian, Greek, Etruscan and Roman cultures that incorporates primary sources. 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.**

An advanced study of the arts of Ancient Egypt (c. 3000 B.C. to c. 300 B.C.). This course will use primary sources to 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.**

An advanced survey of East Asian art from prehistoric times to 19th-century colonialism. Emphasis is placed on China and Japan, but India and Korea are also explored. Painting, sculpture, architecture, and pottery are studied in the context of such philosophies as Buddhism, Confucianism, Shinto, and Taoism. Exams, a research paper, and outside readings are required.

**ARTH 540. Early Medieval Art. 3 credits.**


**ARTH 542. Art of the Later Middle Ages. 3 credits.**

Advanced 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. In-depth analysis using primary sources of the development of Gothic architecture, sculpture and painting in France, Italy and England.

**ARTH 544. Gothic and Gothic Revival Architecture. 3 credits.**


**ARTH 546. Italian Renaissance Art. 3 credits.**

Advanced study of the development of Italian Renaissance art and architecture 1300-1550. Uses primary sources and 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.**

Advanced seminar examining 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. Requires critical readings in primary sources.

**ARTH 549. Topics in Renaissance Art. 3 credits.**

Advanced topics in Renaissance art may include studies of major Italian or Northern Renaissance artists, the development of linear perspective, great monuments of fresco painting, the decoration of the Renaissance tomb chapel or early modern women artists. Requires critical readings in primary sources.

**ARTH 550. Baroque Art. 3 credits.**

Advanced study in European art and architecture of the 17th century. This course will focus on Baroque art and its cultural context in Italy, France, Britain and Holland. Emphasis on analysis of primary and secondary sources.

**ARTH 552. Eighteenth-Century Art. 3 credits.**

Advanced study of the major European artistic movements of the 18th century. This course will focus on the development of Rococo and Neoclassical styles in architecture, sculpture and painting. Emphasis is on analysis of primary and secondary sources.

**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. Emphasis is on analysis of primary and secondary sources.

**ARTH 560. Nineteenth Century Art. 3 credits.**

Advanced 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 and will include a study of pertinent primary sources.

**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.**

Advanced study of 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.**

Advanced 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. Students will focus on significant primary reading in the field.

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

Advanced graduate 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. Students will engage in research with primary source materials.

**ARTH 576. Modern Architecture. 3 credits.**

Advanced study of architecture from 1851 to the present day. Uses primary sources to conduct thematic investigations that address 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 Twentieth Century Art. 3 credits.**

This advanced graduate seminar may include studies of modern and contemporary painters (i.e. Gerhard Richter), sculptors (i.e. Kiki Smith), performance and video artist (i.e. Bill Viola), or thematic issues such as the relationships between art, technology, and gender/racial politics. Students are expected to do original research with primary sources.

**ARTH 580. American Art to 1870. 3 credits.**

Advanced study of American painting, sculpture, architecture and decorative arts from the Colonial period through 1870. Topics will include Colonial portraiture, art training, markets, and patronage, African American aesthetics, the definition of folk art, nationalism and
landscape painting, and gender and representation. Course work centers on a substantial research paper based on primary source material. Prerequisite: GARTH 206.

**ARTH 582. American Art from 1870. 3 credits.**

Advanced study of American painting, sculpture, architecture and decorative arts from 1870-1945. Topics include the American Renaissance, art criticism, exhibitions, and museums, modernism and modernity, the Harlem Renaissance, and gender, sexuality, and representation. Course work centers on a substantial research paper based on primary source material. Prerequisite: ARTH 206.

**ARTH 584. Art of the Americas. 3 credits.**

Advanced study of the 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. It also addresses western stereotypes, museum display, repatriation, forgery, and the art market. Course work centers on a substantial research paper based on primary source material. Prerequisite: GARTH 206.

**ARTH 586. Monticello. 3 credits.**

The seminar first surveys the architecture, interior design, decorative arts, material culture, gardens, landscape architecture, and slave communities and culture of Thomas Jefferson's Monticello. It then examines how and why strategies for the site's preservation and interpretation change, including the problems and controversies presented by issues of race and slavery. Course work centers on a substantial research paper based on primary source material. Required field trips. 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 Eakins, artistic and cultural movements such as the Harlem Renaissance, or thematic issues such as the history of museums, monuments and public art, gender and representation, or the visual culture of the American South. Course work centers on a substantial research paper based on primary source material. 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 e-campus for current topics.

**ART/ARTH 594. Introduction to Museum Work. 3 credits. (Cross-listed as HIST 594.)**

A study of museology (museum philosophy) and museography (practices and techniques
of museum work). The student will acquire the knowledge, basic skills, and resources necessary to identify an individual area of interest within the field and to pursue employment in the museum field.

**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.

**ARTH 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 by 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
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.
Academic Programs: Academic Units

Program Information: Biology

Biology

Phone: (540) 568-6225

Web site: http://www.jmu.edu/biology/biogr.html

Dr. Louise Temple, Department Head

Dr. Susan Halsell, Graduate Director

Professors

R. Harris, I. Knight, J. Monroe, M. Renfroe, B. Wiggins, D. Wubah, G. Wyngaard

Associate Professors

S. Babcock, C. Cleland, J. Herrick, J. Kastendiek, S. Keffer, C. Lantz, K. Murphy, C. Rose, K. Slekar, L. Temple

Assistant Professors


Admission Criteria

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 organismal biology, cell and molecular biology, ecology, evolution 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 the student to make up deficiencies with 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.
Certain areas of study may require additional background in biochemistry, statistics, calculus or computer programming.

Students are required to submit with their application the 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.

Students typically matriculate only in the fall semester.

**Application Deadline: February 15**

**Mission**

The Department of Biology Masters of Science Program is committed to providing a strong and unique training plan for advanced students of the discipline that will prepare them superbly for their future career goals. The program takes advantage of the current strengths of the department: basic scientific research and excellent biology pedagogy. Students will develop their intellectual potential by pursuing advanced course work in biology and pedagogy, by participating in mentored teaching experiences and preparing a teaching portfolio and/or by successfully completing a research thesis.

The Biology Program offers two tracks in the pursuit of a Masters of Science: a thesis based track based on research and a non-thesis track for students whose primary focus is teaching. Both tracks require a minimum of 30 hours of graduate credit in biology.

**Thesis/Research Track**

The thesis/research track is for students who wish to continue the study of biology as a scholarly pursuit and who later continue work toward the Ph.D. or work for industry or government. The primary objective of the thesis/research track is to enrich the student’s subject knowledge and give the student a rigorous experience in research and thesis-writing. Thesis track students can also acquire training and experience in teaching. Training in teaching is provided through courses, offered by the biology department, and the mentored teaching of biology laboratories. Thus, students in the thesis track not only gain research experience, they also can learn to be effective teachers and communicators.

Currently, the biology department has research strengths in the following areas.

- Cell Biology and Genetics
- Comparative and Functional Morphology
- Developmental Biology
- Ecology, Evolution, Behavior and Systematics
- Microbiology
- Neurobiology
- Plant Biology
More information regarding faculty research can be found at the following Web site: http://www.jmu.edu/biology/biofac.html.

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<th>Track Requirements</th>
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<tr>
<td>Minimum Requirements(^1,2)</td>
<td>BIO 700. Thesis</td>
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<tr>
<td>Electives(^3)</td>
<td>24</td>
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1 Students who wish to receive training and mentoring in teaching and who wish to teach biology laboratories are also required to take BIO 600, Effective Teaching I (2 credit) and BIO 601, Mentored Teaching (1 credit).
2 BIO 500, Effective Scientific Communication (2 credits), is strongly recommended for all students. Exemptions require approval of the student’s advisory committee.
3 Students must take a total of 15 hours credit hours of 600 and 700 level courses, including BIO 700.

**Non-Thesis/Teaching Track**

The non-thesis/teaching track is for students who wish to teach, particularly in two year community colleges. The program has two foci: subject training and teacher training. Currently, subject training is concentrated in areas much in demand by community colleges, i.e., Anatomy & Physiology, Microbiology, and General Biology. Students are trained in teaching through courses, all taught within the biology department, and through mentored teaching of laboratories and lectures. In addition, each student will prepare a professional teaching portfolio.

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<tr>
<th>Track Requirements</th>
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<tr>
<td>Minimum Requirements(^1)</td>
<td>BIO 600. Effective Teaching I</td>
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<td>BIO 601. Mentored Teaching</td>
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<td>BIO 701. Effective Teaching II: Teaching Portfolio</td>
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<tr>
<td>Electives(^2)</td>
<td>23</td>
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Academic Programs: Academic Units

1 BIO 500, Effective Scientific Communication (2 credits), is strongly recommended for all students. Exemptions require approval of the student's advisory committee.

2 Students must take a total of 15 hours credit hours of 600 and 700 level courses, including BIO 600, 601 and 701.

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, offered by the College of Education, may minor in biology with 12 hours of graduate credit in biology if they satisfy the minimum entrance requirements for the Master of Education 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 the general regulations and procedures of the College of Graduate and Professional Programs regarding transfer credit.

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

Course Offerings

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 500. Effective Scientific Communication. 2 credits.

Students will develop skills in effective oral and written communications in the biological sciences. Emphasis will be placed on student learning styles, how to prepare an effective lecture or research seminar, effective use of presentation technologies, and effective scientific writing.

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 513. Human Gross Anatomy with Clinical Applications (4, 8). 6 credits.**

An advanced study of human anatomy with cadaver dissection. Emphasis is given to a clinical perspective and the evolution and development of human structure within a comparative context. Prerequisite: A rigorous undergraduate course in anatomy. Credit may not be earned in both BIO 413 and BIO 513.

**BIO 514. Clinical Anatomy for Occupational Therapists. 4 credits.**

This course offers an in-depth study of the structure of the musculoskeletal and peripheral nervous system of the human body. Specific structural and neural pathologies will be examined in regards to impact on occupational performance. Laboratory experiences involving cadaver dissection, skeletal material, models, and audiovisual technology will be utilized. Prerequisite: Admission to the Occupational Therapy program.

**BIO 516. Pathophysiology for Physician Assistants I. 4 credits.**

An advanced clinically-oriented study of human physiology and the alterations in body functions that underlie diseases in humans. It serves as a foundation for courses in clinical medicine. Prerequisite: Admission to the Physician Assistant concentration.

**BIO 517. Pathophysiology for Physician Assistants II. 2 credits.**

An advanced clinically-oriented study of human physiology and the alterations in body functions that underlie diseases in humans. It serves as a foundation for courses in clinical medicine. Prerequisite: Successful completion of all previous courses in the Physician Assistant concentration or permission of the program director.

**BIO 526. Graduate Topics in Biology. 3 - 4 credits.**

Studies in special areas of biology. May be repeated with change in topic or change in subject matter within a topic.

**BIO 540. Functional Neuroscience for Occupational Therapists. 3 credits.**

This course will examine the functional performance of all aspects of the human nervous system. Specific nervous system conditions will be introduced and their impact on occupational performance, performance components, and environmental contexts discussed. Prerequisites: Admittance to the Occupational Therapy program and satisfactory completion of previous concentration work. Credit may not be applied to the
Academic Programs: Academic Units

**BIO 542. Immunology. 3 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. 3 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 550. Neurobiology (3, 3). 4 credits.**

Molecular, cellular and network mechanisms underlying behavior will be studied using problem-solving, discussion, lecture and reading of primary literature. Similarities and differences between nervous systems and computers will be explored. Laboratories will utilize contemporary electrophysiology and computer simulation to examine the neurobiology of simple animal model systems. Independent project required. Credit may not be earned in both BIO 450 and BIO 550.

**BIO 551. Ecosystem Dynamics (2,4). 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 (2, 4). 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 (2, 4). 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. Experiments and data from the biological literatures will be emphasized. Statistical software packages will be used. 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 (3, 3). 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 557. Environmental Toxicology (2,4). 4 credits.

The study of the biological effects of environmental pollutants, examined at the molecular, cellular, organismal, population, community, and ecosystem levels. A seminar/research paper involving advanced applications is required. Credit may not be earned in both BIO 457 and BIO 557.

BIO 559. Aquatic Ecology (2,4). 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 (2,4). 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 580. Advanced Molecular Biology (2, 4). 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 582. Human Histology (3, 3). 4 credits.**

This course presents the microscopic structure of cells, tissues and organs to explain normal physiological function and provides a basis for understanding disease mechanisms and altered cellular states. A special research project is required. Prerequisite: BIO 270 or BIO 290, or equivalent.

**BIO 584. Comparative Endocrinology. 3 credits.**

This course will study the hormonal regulation of physiological activity in different animals, from the cellular to the whole-organism level. Special emphasis will be paid to recent advances in cellular and molecular endocrinology as well as human endocrine disorders. A special research project is required. Prerequisite: BIO 270 or BIO 370, or equivalent.

**BIO 586. Systematics of Vascular Plants (2, 4). 4 credits.**

Study of systematic theory and an overview of the classification and evolution of higher plants, with particular attention to flowering plant families. Techniques for plant identification and collection and for construction of phylogenies will be taught in lab. An independent project and presentation will be required. Prerequisites: general botany and cell biology or equivalents. Credit may not be earned in both BIO 486 and BIO 586.

**BIO 590. Biomechanics (3, 3). 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: 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 600. Effective Teaching I. 2 credits.**

Students will explore effective teaching strategies in the biological sciences. Emphasis will be placed on how to prepare and teach laboratory and lecture courses, including
effective instructional technologies and exam preparation. Discussions of teaching experiences and mentor and peer evaluations of the students' teaching skills will be included. Corequisite: BIO 601.

BIO 601. Mentored Teaching. 1 credit.

Students continue their exploration of effective teaching strategies in the biological sciences as they enter into their first teaching assignment in the department. Students will work under a faculty teaching mentor who will guide the students through their first teaching experience in the Biology Department. Emphasis will be placed on mentor and peer evaluations of the students' teaching skills. May be repeated for up to 2 credits for different teaching assignments. Corequisite: BIO 600

BIO 603. Scientific Presentations. 1 credit.

A forum for students to present their research and/or teaching materials to their peers and receive constructive feedback on their progress. Presentations may take the form of informal "chalk talks," journal club presentations and/or formal presentations. This course is graded on a satisfactory/unsatisfactory (S/U) basis. May be repeated for up to 2 credits.

BIO 615. Managing Anatomy and Physiology Laboratories. 2 credits.

This course will teach students how to manage an anatomy and physiology laboratory. Course topics will include: lab safety, course budgets, the acquisition of supplies, facility layout and design, cadaver maintenance, and the use and maintenance of equipment and inventory control.

BIO 630. Advanced Graduate Topics in Biology. 3-4 credits.

Studies in advanced special areas of biology. May be repeated with change in topic or change in subject matter within a topic.

BIO 660. Graduate Seminar. 1-3 credits.

Seminar in special areas of biology. May be repeated up to a total of 12 hours with change of subject.

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

**BIO 701. Effective Teaching II: Teaching Portfolio. 3 credits.**

Students will document their teaching background in preparation for the job application process.
Business Administration

Phone: (540) 568-3253
Web site: http://www.jmu.edu/mba

Dr. Kenneth D. Bahn, Graduate Director and Coordinator

Accounting Program

Professors
C. Baril, A. Gabbin, N. Nichols, D. Riordan, M. Riordan

Associate Professor
D. Fordham

Assistant Professors
E. Cole, R. Richardson

Economics Program

Professors
E. Ahmed, R. Horn, W. Wood

Associate Professors
J. Doyle, S. Milliman

Assistant Professor
K. Terkun
Finance and Business Law Program

Professors


Computer Information Systems and Management Science Program

Professors

S. Palocsay, F. Teer

Associate Professors

M. Busing, S. Kruck, I. Markham, H. Reif, S. Stevens

Management Program

Professors

P. DuBose, D. Gallagher

Associate Professors

P. Bierly, P. Daly, M. White

Assistant Professors

B. Clemens, A. Manikar, E. Stark

Marketing Program

Professors

K. Bahn, C. Bolfing, R. Reid, K. Williamson

Associate Professors

I. Clarke, T. Flaherty

Faculty members from the College of Business support the Master of Business Administration program. The accounting, economics, finance and business law, computer information
systems and management science, international business, management, and marketing programs in the College of Business also support the Master of Business Administration degree program. The College of Business also offers graduate courses designed to supplement and broaden knowledge in business and economics for master's degree candidates in other fields.

**Admission Criteria**

The Master of Business Administration program is offered in Harrisonburg on the JMU campus. Admissions criteria and degree requirements for this program are the same for full and part-time students. Full-time students may expect to complete a degree in 18 months. Part-time students can expect to finish in 24 to 48 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 are required to have at least two years of post-baccalaureate work experience prior to pursuing an M.B.A. degree.

Applicants must complete the application materials and must submit a resume supported by two letters of recommendation elaborating on their qualifications for graduate work.

**Mission**

The M.B.A. Program within the College of Business at James Madison University emphasizes excellence and continuous improvement in graduate learning by stressing knowledge and technical, interpersonal and experiential skills in the development of managerial decision-making.

**M.B.A. Program Outcomes Based Learning Objectives**

When students complete the M.B.A. Program they should be able to:

- critically evaluate theoretical and applied research across a broad range of business disciplines.
- make ethical decisions.
- think critically and apply sound business concepts to decision-making.
- interpret statistical findings and choose the most appropriate quantitative methods for solving business problems.
- function effectively as a team member and as a team leader.
- make managerial decisions using the knowledge gained in advanced courses.
- derive best case solutions to business problems by integrating material across business and related disciplines.
- create, store, access, analyze and synthesize information from a technology-based perspective.
- analyze financial statements to identify the strengths and weaknesses of company's operations and managerial and financial structure.
**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 of Virginia. All classes are offered during the evenings in Harrisonburg. The Master of Business Administration program is fully accredited by the AACSB and received reaffirmation in the spring of 2002.

While applications are accepted all year, students may begin the program only during the fall semester. 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 non business baccalaureates are required to complete the following 500 level foundation courses in the functional areas of business.

**Non-business Baccalaureate Prerequisites**

**Credit Hours**

- MBA 501. Management & Organizational Behavior 3
- MBA 503. Financial Accounting 3
- MBA 504. Managerial Finance 3
- MBA 505. Foundations of Economics 3
- MBA 506. Legal Environment of Business 3

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Each of the six prerequisites is offered as a self-paced, seven-week, online course. Each course is offered three times per year. All prerequisite courses must be completed prior to
The core MBA 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 pre-registration period. Courses with low enrollments tend to be cancelled.

Students must notify the M.B.A. program office upon completion of each prerequisite course and have official transcripts submitted to the College of Graduate and Professional Programs office directly from the institution where the course was completed.

Students are encouraged 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, students can then move through other required courses and electives. As an alternative, MBA 640, Management Information Systems and MBA 641, Economics, can be taken during the first year.

<table>
<thead>
<tr>
<th>M.B.A. Requirements</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>MBA 600. Organizational Behavior</td>
<td>3</td>
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<tr>
<td>MBA 610. Quantitative Methods for Management</td>
<td>3</td>
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<tr>
<td>MBA 620. Accounting for Decision Making &amp; Control</td>
<td>3</td>
</tr>
<tr>
<td>MBA 630. Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>MBA 640. Managerial Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>MBA 641. The Microeconomics of Business Decision Making</td>
<td>3</td>
</tr>
<tr>
<td>MBA 642. Operations Management</td>
<td>3</td>
</tr>
</tbody>
</table>
Academic Programs: Academic Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBA 643</td>
<td>Advanced Topics &amp; Cases in Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>MBA 644</td>
<td>Foundations of Marketing Management</td>
<td>3</td>
</tr>
<tr>
<td>MBA 690</td>
<td>Strategic Management</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>(two courses)</td>
<td>6</td>
</tr>
</tbody>
</table>

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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, Accounting for Decision Making & Control. MBA 690, Strategic Management, is considered the capstone course in the M.B.A. program and replaces the comprehensive examination requirement. A grade of “B” or better must be attained to pass MBA 690. Because MBA 690 meets the formal assessment requirement for the College of Graduate and Professional Studies, 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 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 is eight weeks long. Each course meets for four hours at the beginning and at the end. Instruction for the eight weeks between face-to-face meetings is done on-line. Assignments, faculty interaction, group discussions and examinations are Web-delivered.

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

<table>
<thead>
<tr>
<th>Information Security Concentration Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Requirements</td>
<td></td>
</tr>
<tr>
<td>MBA 600. Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MBA 640. Management Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>MBA 680. Introduction to Information Security</td>
<td>3</td>
</tr>
</tbody>
</table>
Academic Programs: Academic Units

MBA 610. Quantitative Methods for Management 3
MBA 620. Accounting for Decision Making & Control 3
MBA 630. Financial Management 3
MBA 681. Managing System Networks 3
MBA 641. The Microeconomics of Business Decision-Making 3
MBA 642. Operations Management 3
MBA 643. Advanced Topics & Cases in Financial Management 3
MBA 644. Foundations of Marketing Management 3
MBA 685. Information Security Ethics and Policy 3
MBA 682. Managerial Computer Forensics 3
MBA 690. Strategic Management 3

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. Enrollment in 600-level courses offered by the College of Business is restricted to fully admitted graduate students.

<table>
<thead>
<tr>
<th>Health Services Administration Concentration Requirements</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>Minimum Requirements</td>
<td></td>
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<tr>
<td>MBA 600. Organizational Behavior</td>
<td></td>
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<tr>
<td>MBA 610. Quantitative Methods for Management</td>
<td>3</td>
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<td>3</td>
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<tr>
<td>MBA 630. Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>MBA 640. Management Information Systems</td>
<td>3</td>
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</tbody>
</table>

http://www.jmu.edu/cgop/GradCatalog/05/Business.htm (7 of 16) [7/16/2008 1:43:01 PM]
Academic Program: Academic Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTH 659</td>
<td>Health Care Environment</td>
<td>3</td>
</tr>
<tr>
<td>HTH 660</td>
<td>Health Economics</td>
<td>3</td>
</tr>
<tr>
<td>HTH 661</td>
<td>Financial Management of Health Services Orgs.</td>
<td>3</td>
</tr>
<tr>
<td>HTH 669</td>
<td>Health Care Administration</td>
<td>3</td>
</tr>
<tr>
<td>MBA 642</td>
<td>Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>MBA 644</td>
<td>Foundations of Marketing Management</td>
<td>3</td>
</tr>
<tr>
<td>MBA 690</td>
<td>Strategic Management</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>(choose one of the following):</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MBA 641. The Microeconomics of Business</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Decision-Making</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MBA 643. Advanced Topics &amp; Cases in</td>
<td></td>
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<tr>
<td></td>
<td>Financial Management</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MBA 650. Managing Human Resources</td>
<td></td>
</tr>
</tbody>
</table>

**Course Offerings**

**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.

**MBA 670. Directed Research. 1-3 credits.**

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

**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.
MBA 676. Directed Research. 1-3 credits.

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

Economics

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 620 should be taken either at the same time or prior to MBA 630.

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, lease capital, 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.

MBA 671. Directed Research. 1-3 credits.
Opportunity for directed research in areas of special interest. Prerequisite: Permission of instructor and Master of Business Administration program director.

International Business

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 and Management Science

MBA 610. Quantitative Methods for Management. 3 credits.
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.

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 672. Directed Research. 1-3 credits.**

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

**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.**


**MBA 664. Negotiations and Conflict Management. 3 credits.**

This course focuses on the identification and development of effective negotiation skills that can be utilized in business and interpersonal relationships. Applications of bargaining principles are also discussed in the context of the resolution of disputes between both
organizations and individuals.

**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 required course taken of the Master of Business Administration program.

**MBA 674. Directed Research. 1-3 credits.**

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

**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 the theory and economics of database-driven direct marketing, sources of data and database software, and technology behind database marketing.

**MBA 665. Internet Marketing. 3 credits.**

Studies the culture and demographics of the Internet, online business strategies, and the hardware and software tools necessary for online marketing practice. Students learn to identify relevant target segments, develop product opportunities, pricing structures, and distribution channels over the Internet, and execute marketing strategy in computer mediated environments.
MBA 675. Directed Research. 1-3 credits.

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

Information Security Concentration

MBA 680. Introduction to Information Security. 3 credits.

Overview of Information Security exploring basic concepts and developing knowledge and skills of protecting valuable information assets and systems.

MBA 681. Managing System Networks. 3 credits.

Development of understanding and skills for managing effective security in enterprises that depend upon information infrastructures and engage in e-commerce.

MBA 682. Managerial Computer Forensics. 3 credits.

To educate current and future managers in the roles, responsibilities, nature, structure, content, parties, networks, tools and processes involved in computer (digital) forensics.

MBA 685. Information Security Ethics and Policy. 3 credits.

Overview of business law concentrating on legal issues critical to enterprises operating information infrastructures and engaging in electronic commerce.

Online 500-Level Prerequisites

MBA 501. Management and Organizational Behavior. 3 credits.

This course is designed to meet the entry level MBA requirements in Organizational Behavior and Management. Course content is drawn from both of these fields, including the structure of organizations, leadership, motivation, organization, culture, and work in groups.

MBA 502. Statistics and Management Science. 3 credits.

This course provides MBA students with a foundation in the central ideas and tools of statistical and quantitative analysis. It is intended as a prerequisite for MBA 690 (currently IDS 695: Quantitative Methods for Management). Topics include measures of central tendency and dispersion, point and interval estimates, hypothesis testing, linear regression, mathematical modeling and basic probability. MBA 502 is offered as a self-paced, online course and is accessible via an Internet browser such as Internet Explorer. Prerequisites: Math 205 (Business Calculus) or the equivalent.
MBA 503. Financial Accounting. 3 credits.

The role of financial data in contemporary society; the problems of measuring and reporting income, assets, liabilities and equities; interpretation of financial statements.

MBA 504. Managerial Finance. 3 credits.

Study of theoretical concepts and analytical techniques to aid management decision-making. Topics include: financial statement analysis and forecasting, time value of money concepts, working capital management, and capital budgeting.

MBA 505. Foundation of Economics. 3 credits.

MBA 505 is designed to equip the student with the fundamentals of economic analysis, so that he or she will be able to apply these principles to appropriate cases. The course is designed to develop a facility of using the tools of economic analysis, 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 between economics and other disciplines.

MBA 506. Legal Environment of Business. 3 credits.

An introduction to the American legal system, the public law regulating business and the private law of business relationships. The law is examined as an evolving process in which current rules have developed and new rules with evolve in the ethical and moral context of American society.

MBA Courses

Prerequisite Courses

MBA 501. Management & Organizational Behavior

MBA 502. Statistics and Management Science

MBA 503. Financial Accounting

MBA 504. Managerial Finance

MBA 505. Foundation of Economics

MBA 506. Legal Environment of Business
Required

MBA 600. Organizational Behavior
MBA 610. Quantitative Methods For Management
MBA 620. Accounting For Decision Making & Control
MBA 630. Financial Management
MBA 640. Management Information Systems
MBA 641. The Microeconomics of Business Decision-Making
MBA 642. Operations Management
MBA 643. Advanced Topics & Cases in Financial Management
MBA 644. Foundations of Marketing Management
MBA 690. Strategic Management

Electives

MBA 650. Managing Human Resources
MBA 652. Technology-Enhanced Decision-Making
MBA 653. Business Law
MBA 654. Investment Analysis
MBA 655. Marketing Research For Decision Making
MBA 656. Relationship Marketing
MBA 659. Financial Markets
MBA 660. International Finance
MBA 661. Financial Management of Real Estate Investments
MBA 662. Macro Economic Theory and Economic Policy
MBA 663. International Business Development
MBA 664. Negotiations and Conflict Management
MBA 665. Internet Marketing
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
Computer Science

Phone: (540) 568-8772
Web site: http://www.cs.jmu.edu/csprogram.htm

Dr. Malcolm G. Lane, Department Head
Dr. Ralph Grove, Graduate Coordinator

Professors
C. Fox, S. Frysinger, J. A. Harris, M. H. Heydari, B. Kraimeche, M. Lane, J. Marchal, R. Mata-Toledo

Associate Professors
C. Abzug, E. Adams, D. Bernstein, P. Cushman, R. Grove, R. Prieto-Diaz, S. Redwine, B. Tjaden

Assistant Professors
M. Aboutabl, F. Buchholz, M. Norton, R. Tucker, X. Wang

Instructor
T. Daughtrey

Adjunct Assistant Professor
S. Greenwald

Admission Criteria
Admission to the program is competitive. Preference is given to students with
undergraduate preparation in Computer Science, or industrial or government experience in computing. Strong students from other disciplines are encouraged to apply. Students judged able to complete the program but lacking preparation in Computer Science will generally be admitted conditionally and required to complete remedial courses.

**Mission**

The graduate program in Computer Science prepares highly skilled professionals with advanced expertise in creating and maintaining secure and reliable computing systems.

The Computer Science department offers two programs of study leading to the Master of Science in Computer Science. The on-campus program in Secure Software Engineering combines studies in the areas of software engineering and information security. The distance-education program in Information Security features intensive study of information security. Both programs achieve their goals through courses in core areas of Computer Science, followed by course work and directed study in software engineering and information security.

Full-time on-campus graduate students can expect to complete their course work in two years and distance-education students in two and a half years. Part-time students seeking to advance their careers may pursue their academic objectives at a pace commensurate with their professional and personal obligations.

**Concentrations**

**Concentration in Secure Software Engineering**

**Dr. Ralph Grove, Concentration Coordinator**

This concentration is available only to on-campus students. The program requires 36 credit hours, half of which must be at the 600-level or above. Ten courses comprising 30 credits are required and six credits are electives. For electives students may choose independent studies, reading and research courses, a thesis, or courses offered by faculty on topics of interest. Students with exceptional undergraduate preparation may make substitutions for selected required courses with the permission of the faculty.

<table>
<thead>
<tr>
<th>Secure Software Engineering Concentration Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 530. Programming Languages</td>
<td>3</td>
</tr>
<tr>
<td>CS 550. Operating Systems</td>
<td>3</td>
</tr>
</tbody>
</table>
Academic Programs: Academic Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 552</td>
<td>Applied Complexity Theory</td>
<td>3</td>
</tr>
<tr>
<td>CS 555</td>
<td>Software Engineering</td>
<td>3</td>
</tr>
<tr>
<td>CS 557</td>
<td>Information Security</td>
<td>3</td>
</tr>
<tr>
<td>CS 574</td>
<td>Database Systems</td>
<td>3</td>
</tr>
<tr>
<td>CS 610</td>
<td>Networking and Security</td>
<td>3</td>
</tr>
<tr>
<td>CS 635</td>
<td>Secure Network Operations</td>
<td>3</td>
</tr>
<tr>
<td>CS 665</td>
<td>Software Requirements and Design</td>
<td>3</td>
</tr>
<tr>
<td>CS 666</td>
<td>Software Quality Assurance</td>
<td>3</td>
</tr>
<tr>
<td>Approved Electives in Computer Science</td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

Approved Electives in Computer Science: 6 credit hours

Concentration in Information Security

Dr. M. Hossain Heydari, Concentration Coordinator

This concentration is offered in a remote, electronic distance-learning format that, 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 Web site at http://www.infosec.jmu.edu. 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.

Information Security Concentration Requirements

<table>
<thead>
<tr>
<th>Minimum Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 523. Ethics, Law and Policy in Cyberspace</td>
<td>3</td>
</tr>
<tr>
<td>CS 550. Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>CS 555. Software Engineering</td>
<td>3</td>
</tr>
<tr>
<td>CS 560. Networks and Network Security</td>
<td>3</td>
</tr>
<tr>
<td>CS 574. Database Systems</td>
<td>3</td>
</tr>
<tr>
<td>CS 625. Information Security Audit Controls</td>
<td>3</td>
</tr>
<tr>
<td>CS 627. Cryptography: Algorithms and Applications</td>
<td>3</td>
</tr>
<tr>
<td>CS 652 Formal Methods for Information Security</td>
<td>3</td>
</tr>
<tr>
<td>CS 660. Advanced Network Security</td>
<td>3</td>
</tr>
</tbody>
</table>

Thesis Route

27 credit hours
Academic Programs: Academic Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 700. Thesis</td>
<td>6</td>
</tr>
<tr>
<td>CS 621. Trusted Systems 3</td>
<td>3</td>
</tr>
<tr>
<td>CS 675 Distributed Computing and Security</td>
<td>3</td>
</tr>
<tr>
<td>CS 685. Selected Topics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>33</td>
</tr>
</tbody>
</table>

Non-Thesis Route

Depending on undergraduate background and work experience, students may be required to take one or more of the following preparatory courses. These courses do not satisfy graduation requirements for the Information Security concentration.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 510. Accelerated Fundamentals of Computer Programming</td>
<td>3</td>
</tr>
<tr>
<td>CS 511. Accelerated Fundamentals of Computer Systems</td>
<td>3</td>
</tr>
<tr>
<td>CS 512. Advanced Fundamentals of Computer Programming</td>
<td>3</td>
</tr>
<tr>
<td>CS 515. Foundations of Computer Science</td>
<td>3</td>
</tr>
</tbody>
</table>

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 515. Foundations of Computer Science. 3 credits.**

Survey of fundamental Computer Science concepts such as iteration, recursion, induction, analysis of algorithms, combinations and probability, data structures, automata theory and regular expressions, context-free grammars and parsing, propositional and predicate logic. This course does not satisfy graduation requirements for the program.

**CS 523. Ethics, Law and Policy in Cyberspace. 3 credits.**

Study of ethical issues, legal resources and recourses, and policy implications inherent in our evolving on-line society. Provides an overview of the ethical challenges faced by individuals and organizations in the information age. Introduces the complex and dynamic state of the law as it applies to behavior in cyberspace. Prerequisite: CS 550.

**CS 530. Programming Languages. 3 credits.**

Study of the fundamental principles of programming language design and their realization in actual programming languages. Examines programming languages from the procedural, object-oriented, functional and declarative paradigms. Introduces basic concepts of grammars and parsing. Prerequisites: CS 240 and CS 350, or CS 511 and CS 512, or equivalent.

**CS 550. Operating Systems. 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 240 or CS 512 or equivalent.

**CS 555. Software Engineering. 3 credits.**

The software development life cycle, software project management, development tools and methods, and software quality assurance. Teams of students will complete a significant development project. Prerequisite: CS 240 or CS 512 or equivalent.

**CS 557. Information Security. 3 credits.**

Fundamental concepts of Information Security including identification and authentication, access control, security models, security kernels, and Windows and Unix security. Discussions will cover the historical development of information security, cryptology, PKI key management, application level security issues and security evaluation. Prerequisite: CS 550.

**CS 560. Networks and Network Security. 3 credits.**

Fundamental concepts, principles, and practical networking and internetworking issues relevant to the design, analysis, and implementation of enterprise-level trusted networked information systems. Topics include networking and security architectures, techniques, and protocols at the various layers of the Internet model. Prerequisite: CS 550.

**CS 574. Database Systems. 3 credits.**

Types of physical storage and access methods; data models; relational algebra and calculus, data 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.
Academic Programs: Academic Units

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 610. Networking and Security. 3 credits.**

Fundamental concepts, principles, and practical networking and internetworking issues relevant to the design, analysis, and implementation of enterprise-level trusted networked information systems. Topics include networking and security architectures, techniques and protocols at the various layers of the Internet model. Prerequisite: CS 550.

**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 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 627. Cryptography: Algorithms and Applications. 3 credits.

Cryptographic techniques to achieve confidentiality, integrity, authentication and non-repudiation are examined. The underlying mathematical concepts are introduced. Topics to be covered include symmetric and public key encryption, hashing, digital signatures, cryptographic protocols and other recent developments in the field. Prerequisite: CS 252, MATH 227 or CS 515.

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 635. Secure Network Operations. 3 credits.

Standard network security techniques for monitoring and maintaining an organization’s internal and external networks. Students will learn how to detect network-based attacks, diagnose an attacker’s intent, and respond to and recover from intrusions. Prerequisite: CS 610.

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 652. Formal Methods for Information Security. 3 credits.

A formal specification language is presented with case studies, proofs, and the formal specification of software components. Additional topics may include formal security policy modeling, seminal formal systems, first-order logic, set theory, relations, functions, sequences, bags, free types, formal and rigorous proof, immanent reasoning, reification,
Academic Programs: Academic Units

decomposition, and Floyd-Hoare logic.

**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 660. Advanced Network Security. 3 credits.**

This is a project-based course. Students will learn advanced Network Security concepts, conduct Information Security research, and apply what they have learned throughout the Information Security masters program to better secure critical Information Infrastructure.

**CS 665. Software Requirements and Design. 3 credits.**

In-depth study of the state-of-the-art in requirements engineering, analysis, and design. Topics include formal techniques for system specification and verification, security models, software analysis and design methods and techniques, software architectures, and design patterns. Prerequisite: CS 555.

**CS 666. Software Quality Assurance. 3 credits.**

In-depth study of selected topics in software quality assurance. Topics include reviews and inspections, testing, formal verification methods, process management and improvement, and defect prevention. Prerequisite: CS 555.

**CS 674. Database Systems II. 3 credits.**

Continuation of CS 574. Prerequisite: CS 574.

**CS 675. Distributed Computing and Security. 3 credits.**

Covers theoretical and applied aspects of security and privacy needed for middleware and service-ware to offer reasonable assurance for modern distributed systems. Topics include distributed systems architectures, technologies, and management; distributed system design, security, and privacy issues; and applications such as web services and mobile commerce. Prerequisite: CS 560.

**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 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.
Program Information: Communication Sciences and Disorders

Communication Sciences and Disorders

Phone: (540) 568-6440

Web site: http://www.csd.jmu.edu/

Dr. Vicki A. Reed, Department Head

Dr. Charles Runyan, Graduate Coordinator

Professors

V. Reed, C. Runyan, R. Ruth, B. Ryals, B. Seal

Associate Professors


Adjunct Faculty


Emeritus Faculty

N. Bankson, C. Bennett, M. Filter, R. Hinkle, R. Morris, N. O’Hare

Clinical Instructors

R. Helton, J. Hilton, S. Ingram, C. Jacobson, D. Schwalbach

Admission

To be considered for unconditional admission into any of the graduate programs, a prospective student must have a 3.25 grade point average in the undergraduate major,
successfully completed the undergraduate prerequisite courses, and completed the Graduate Record Examination. Applicants to the doctoral programs must also submit three letters of recommendation and a letter of intent and schedule a personal interview.

Applications may be submitted at any time. However, for full consideration, it is recommended that all materials be received by February 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. Students who have not met the undergraduate prerequisite course work for the clinical preparation programs in audiology and speech-language pathology may apply to these graduate programs as a provisional student. Once the prerequisite course work has been completed at a satisfactory level, the student is shifted from provisional to either conditional or unconditional status.

**Mission**

The Department of Communication Sciences and Disorders (CSD) is committed to providing comprehensive, state of the art undergraduate pre-professional course work and observation, plus graduate level course work and practicum experiences for those interested in entering professional practice in either speech-language pathology or audiology, university teaching and research positions, or management/administrative positions in service delivery settings. The department is also committed to advancing the state of knowledge in both basic and applied aspects of communication sciences and disorders through its research degrees and faculty and student activities, and to providing service to professional and client communities at the local, state, national and international levels. The missions of the Graduate Degree programs in Speech-Language Pathology and Audiology are:

- To prepare individuals for clinical certification/licensure in either speech-language pathology or audiology; and
- To prepare individuals for teaching and research careers, as well as leadership positions in service delivery settings focused on speech-language pathology or audiology.

The audiology and speech-language pathology clinical training programs in the Department of Communication Sciences and Disorders are accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology of the American Speech-Language-Hearing Association.

**Speech-Language-Hearing Applied Laboratory**

The JMU Applied Laboratory, 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 who supervise the practica of students.

**Doctor of Philosophy (Ph.D.) in Communication Sciences and Disorders**

A nationwide shortage of individuals with Ph.D.s in the communication sciences and disorders means that graduates are in high demand for employment in leadership positions in health facilities, universities, and research centers. In addition to advanced coursework related to communication disorders, students complete requirements in statistics, research design, hearing or speech sciences, a teaching\supervision internship, and dissertation.

The Ph.D. program is typically initiated at a post-masters degree level. However, in some cases students may be admitted without a master’s degree. For students who desire to obtain a clinical qualification as well as their Ph.D., programs of study can be individually designed to enable students to meet the requirements of both. Students with a Doctor of Audiology degree admitted to the Ph.D. undertake an individually designed program emphasizing research tools, research activities and in-depth exposure to their major area of interest. This individualized program of study will culminate in a dissertation and is anticipated to be composed of 18-24 semester credit hours. The individualized program of study for those holding an Au.D. degree must be approved by the student's research committee and the department head.

<table>
<thead>
<tr>
<th><strong>Ph.D. in Communication Sciences and Disorders</strong> Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statistics and Research Design</td>
<td>12</td>
</tr>
<tr>
<td>Sample Courses</td>
<td>12</td>
</tr>
<tr>
<td>MATH 522. Statistics for Researchers</td>
<td>3</td>
</tr>
<tr>
<td>HTH 655. Research Techniques</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 600. Introduction to Measurement and Statistics</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 605. Research and Inferential Statistics</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 608. Multivariate Statistical Methods</td>
<td>3</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
</tr>
<tr>
<td>-------------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>PSYC 777</td>
<td>Psychoeducational Assessment</td>
</tr>
<tr>
<td>PSYC 812</td>
<td>Assessment Methods and Instrument Design</td>
</tr>
<tr>
<td>Speech or Hearing Science and Instrumentation</td>
<td></td>
</tr>
</tbody>
</table>

Sample Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSD 511</td>
<td>Instrumentation in Audiology</td>
<td>4</td>
</tr>
<tr>
<td>CSD 512</td>
<td>Anatomy and Physiology of the Auditory and Vestibular Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSD 521</td>
<td>Speech Perception: Models and Theories</td>
<td>3</td>
</tr>
<tr>
<td>CSD 523</td>
<td>Psychoacoustics</td>
<td>3</td>
</tr>
<tr>
<td>CSD 604</td>
<td>Neuroanatomy and Neurophysiology of Speech and Language</td>
<td>3</td>
</tr>
<tr>
<td>CSD 605</td>
<td>Physiological and Acoustical Phonetics</td>
<td>3</td>
</tr>
<tr>
<td>CSD 721</td>
<td>Hearing Aids &amp; Signal Processing</td>
<td>3</td>
</tr>
<tr>
<td>CSD 805</td>
<td>Quantitative Measurement of Speech and Voice</td>
<td>3</td>
</tr>
</tbody>
</table>

Directed Research

Sample Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSD 717</td>
<td>Directed Research</td>
<td>1-3</td>
</tr>
<tr>
<td>CSD 817</td>
<td>Directed Research</td>
<td>1-3</td>
</tr>
<tr>
<td>CSD 917</td>
<td>Directed Research</td>
<td>1-3</td>
</tr>
</tbody>
</table>

Teaching/Supervision Internship

Sample Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSD 841</td>
<td>Teaching Experience in CSD</td>
<td>3</td>
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</table>
Academic Programs: Academic Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSD 842. Supervision Experience in CSD</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>18</td>
</tr>
<tr>
<td>Sample Courses</td>
<td></td>
</tr>
<tr>
<td>CSD 850-866. Advanced Seminars in CSD</td>
<td>2-3</td>
</tr>
<tr>
<td>CSD 510, 525, 610, 620, 710. Seminars in Audiology</td>
<td>3</td>
</tr>
<tr>
<td>CSD 718, 818, 918. Independent Study</td>
<td>1-3</td>
</tr>
<tr>
<td>Courses outside of department</td>
<td>2-3</td>
</tr>
<tr>
<td>Dissertation 12 credits</td>
<td>12</td>
</tr>
<tr>
<td>CSD 920. Dissertation</td>
<td></td>
</tr>
<tr>
<td>(minimum)</td>
<td>57</td>
</tr>
</tbody>
</table>

**Doctor of Audiology (Au.D.)**

This graduate audiology program is a four-year post-baccalaureate program of study that 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. Students admitted to this program are matriculated into a focused curriculum developed to prepare doctoral-level practitioners. Students admitted to the Doctor of Audiology program who already hold a masters degree in Audiology will complete an individualized program of study composed of a minimum of 57 semester credit hours. No students will be allowed to matriculate with the intention of earning a masters degree as the terminal degree.

<table>
<thead>
<tr>
<th>Au.D. in Audiology Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSD 511. Instrumentation in Audiology</td>
<td>4</td>
</tr>
<tr>
<td>CSD 512. Anatomy and Physiology of the Auditory and Vestibular Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSD 513. Anatomy and Physiology of the Central Auditory Pathway</td>
<td>2</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------------------------------------------------</td>
</tr>
<tr>
<td>CSD 514</td>
<td>Audiologic Assessment</td>
</tr>
<tr>
<td>CSD 515</td>
<td>Human Communication and Aural Rehabilitation</td>
</tr>
<tr>
<td>CSD 523</td>
<td>Psychoacoustics</td>
</tr>
<tr>
<td>CSD 531</td>
<td>Industrial Audiology</td>
</tr>
<tr>
<td>CSD 532</td>
<td>Counseling in Audiology</td>
</tr>
<tr>
<td>CSD 533</td>
<td>Business Applications</td>
</tr>
<tr>
<td>CSD 600</td>
<td>Research in Audiology</td>
</tr>
<tr>
<td>CSD 611</td>
<td>Neurophysiologic Measures I</td>
</tr>
<tr>
<td>CSD 612</td>
<td>Introduction to Hearing Aids</td>
</tr>
<tr>
<td>CSD 621</td>
<td>Neurophysiologic Measures II</td>
</tr>
<tr>
<td>CSD 622</td>
<td>Advanced Hearing Aids</td>
</tr>
<tr>
<td>CSD 631</td>
<td>Neurophysiologic Measures III</td>
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<td>CSD 633</td>
<td>Auditory Pathophysiology</td>
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<td>Pediatric Audiology</td>
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<tr>
<td>CSD 731</td>
<td>Medical Audiology</td>
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**Seminars**

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<tbody>
<tr>
<td>CSD 510</td>
<td>Seminar in Audiology (Clinical Methods I)</td>
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<tr>
<td>CSD 525</td>
<td>Seminar in Audiology (Clinical Methods II)</td>
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</tr>
<tr>
<td>CSD 610</td>
<td>Seminar in Audiology (Tinnitus)</td>
<td>2</td>
</tr>
<tr>
<td>CSD 620</td>
<td>Seminar in Audiology (Clinical Research)</td>
<td>2</td>
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<tr>
<td>CSD 710</td>
<td>Seminar in Audiology (Geriatric Audiology)</td>
<td>2</td>
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<tr>
<td>CSD 720</td>
<td>Seminar in Audiology (Cochlear Implants)</td>
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<td>CSD 810</td>
<td>Professional Seminar in Audiology</td>
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<tr>
<td>CSD 820</td>
<td>Professional Seminar in Audiology</td>
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Master of Science (M.S.)

The Department of Communication Sciences and Disorders offers two tracks in the Master of Science program. One is the Master of Science in Speech-Language Pathology. This is a clinical track designed to prepare individuals to practice as speech-language pathologists. The second is the Master of Science in Communication Sciences and Disorders. It is a non-clinical track designed for individuals who seek concentrated study in one or more areas of human communication sciences and/or communication disorders without clinical preparation as audiologists or speech-language pathologists. Because this track provides the opportunity for more in-depth study in selected concentrations and involves students in active participation in research, it is designed to lay a solid foundation in communication sciences and disorders research, particularly for those individuals wanting to pursue further study at the Ph.D. level.
M.S. in Speech-Language Pathology

The master's degree program in speech-language pathlogy is designed to provide a broad spectrum of academic and practicum experiences necessary for the education of specialists who deal with disorders of human communication and swallowing.

Clinical practical experiences are available in a wide range of professional settings including the JMU Applied Laboratory, 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 of 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 prerequisite undergraduate coursework 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.

### M.S. in Speech-Language Pathology Requirements

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>CSD 500. Introduction to Research in Communication Sciences and Disorders</td>
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</tr>
<tr>
<td>CSD 522. Communication Disorders of the Traumatically Brain Injured</td>
<td>2</td>
</tr>
<tr>
<td>CSD 527 Ageing and Communication</td>
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</tr>
<tr>
<td>CSD 528. Autism</td>
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</tr>
<tr>
<td>CSD 529. Augmentative Communication</td>
<td>1</td>
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<tr>
<td>CSD 530. Early Intervention</td>
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<tr>
<td>CSD 544. Evaluation and Treatment of Swallowing Disorders</td>
<td>2</td>
</tr>
<tr>
<td>CSD 560. Neuromotor Speech Disorders</td>
<td>2</td>
</tr>
<tr>
<td>CSD 604. Neuroanatomy and Neurophysiology of Speech and Language</td>
<td>3</td>
</tr>
<tr>
<td>CSD 605. Physiological and Acoustical Phonetics</td>
<td>3</td>
</tr>
<tr>
<td>CSD 623. Advanced Study of Phonological Disorders</td>
<td>3</td>
</tr>
<tr>
<td>CSD 625. Pediatric Dysphagia</td>
<td>1</td>
</tr>
<tr>
<td>CSD 632. Processes and Disorders of Speech Fluency</td>
<td>2</td>
</tr>
<tr>
<td>CSD 640. Advanced Children's Language Disorders</td>
<td>3</td>
</tr>
<tr>
<td>CSD 641. Language Disorders in Adults</td>
<td>2</td>
</tr>
<tr>
<td>CSD 651. Disorders of Speech Resonance</td>
<td>2</td>
</tr>
<tr>
<td>CSD 656. Voice Disorders</td>
<td>3</td>
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<td>Clinical Practicums</td>
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<tr>
<td>CSD 581. Intern Speech Practicum -- required</td>
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<td>CSD 582. Intern Speech Practicum -- required</td>
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<tr>
<td>CSD 583. Summer Intern Speech Practicum</td>
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<td>CSD 584. Intern Speech Practicum</td>
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<tr>
<td>CSD 585. Intern Speech Practicum</td>
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<td>CSD 586. Intern Speech Practicum</td>
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<tr>
<td>CSD 681. Hearing for SLP</td>
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<tr>
<td>CSD 682. Intern Speech Practicum -- required</td>
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<td>CSD 683. Extern Speech Practicum</td>
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<td>CSD 684. Extern Speech Practicum</td>
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<td>CSD 685. Extern Speech Practicum</td>
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<td>CSD 686. Extern Speech Practicum</td>
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<td>CSD 687. Extern Speech Practicum</td>
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<tr>
<td>CSD 688. Extern Speech Practicum</td>
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<tr>
<th>Electives</th>
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<tr>
<td>CSD 515. Human Communication and Aural Rehabilitation</td>
<td>3</td>
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<tr>
<td>CSD 520. Advanced Sign Language</td>
<td>3</td>
</tr>
<tr>
<td>CSD 680. Reading and Research</td>
<td>1-3</td>
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</table>
M.S. in Communication Sciences and Disorders

The master's degree program in communication sciences and disorders is a non-clinical track that combines concentrated study in selected areas of human communication sciences and/or in areas of communication disorders and active research participation and research training. For individuals who wish to pursue further study at the Ph.D. level, the program offers a solid foundation in communication sciences and disorders research. Students select one area of concentration (Category C course work) from among four possible areas and complete the course work in that area in addition to the coursework in the three other categories (A, B and D), as indicated below, for a total of a minimum of 36 credit hours. Completion of a thesis and participation in directed research experiences are essential parts of the program.

**M.S. in Communication Sciences and Disorders**

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Category A: Research Design and Statistics</strong></td>
<td>Min. 9</td>
</tr>
<tr>
<td>CSD 500. Introduction to Research in Communication Sciences and Disorders or</td>
<td>2-3</td>
</tr>
<tr>
<td>CSD 600. Research in Audiology</td>
<td></td>
</tr>
<tr>
<td>Choose, in conjunction with major adviser, at least 6 credits from the following:</td>
<td>6</td>
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<tr>
<td>PSYC 600. Introduction to Measurement and Statistics</td>
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<tr>
<td>PSYC 604. Computer Assisted Data Management</td>
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<tr>
<td>PSYC 605. Research and Inferential Statistics</td>
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</table>
### Academic Programs: Academic Units

<table>
<thead>
<tr>
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<tr>
<td>PSYC 608</td>
<td>Multivariate Statistical Methods</td>
</tr>
<tr>
<td>PSYC 609</td>
<td>Applied Research Methods</td>
</tr>
<tr>
<td>PSYC 840</td>
<td>Qualitative Research Design and Analysis</td>
</tr>
<tr>
<td>HTH 655</td>
<td>Research Techniques</td>
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<td></td>
<td><strong>Or other courses as approved</strong></td>
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</tbody>
</table>

**Category B: Speech/Hearing Sciences and Instrumentation**

Choose, in conjunction with major adviser, at least 6 credits from the following:

- CSD 511. Instrumentation in Audiology
- CSD 512. Anatomy and Physiology of the Auditory and Vestibular Systems
- CSD 513. Anatomy and Physiology of the Central Auditory Pathway
- CSD 523. Psychoacoustics
- CSD 604. Neuroanatomy and Neurophysiology of Speech and Language
- CSD 605. Physiological and Acoustical Phonetics

**Areas of Concentration: Complete one area**

Area 1. Adult Neurogenic Communication Impairment

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CSD 515</td>
<td>Human Communication and Aural Rehabilitation</td>
</tr>
<tr>
<td>CSD 522</td>
<td>Communication Disorders of the Traumatically Brain Injured</td>
</tr>
<tr>
<td>CSD 527</td>
<td>Aging and Communication</td>
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Min. 9

Min. 6
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<tr>
<th><strong>Area 1. Speech Assessment</strong></th>
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<tbody>
<tr>
<td>CSD 532. Counseling in Audiology</td>
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<tr>
<td>CSD 544. Evaluation and Treatment of Swallowing Disorders</td>
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<tr>
<td>CSD 560. Neurometer Speech Disorders</td>
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<tr>
<td>CSD 641. Language Disorders in Adults</td>
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<tr>
<td>CSD 710. Seminar in Audiology (Geriatric Audiology)</td>
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<table>
<thead>
<tr>
<th><strong>Area 2. Pediatric Communication Impairment</strong></th>
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<tbody>
<tr>
<td>CSD 718. Independent Study 3</td>
</tr>
<tr>
<td>Choose at least 6 credits, as approved by major adviser, from among the following:</td>
</tr>
<tr>
<td>CSD 515. Human Communication and Aural Rehabilitation</td>
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<tr>
<td>CSD 528. Autism</td>
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<td>CSD 529. Augmentative Communication</td>
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<td>CSD 530. Early Intervention</td>
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<td>CSD 623. Advanced Study of Phonological Disorders</td>
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<td>CSD 625. Pediatric Dysphagia</td>
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<td>CSD 640. Advanced Children’s Language Disorders</td>
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<tr>
<th><strong>Area 3. Speech Production Disorders</strong></th>
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<tr>
<td>CSD 570. Speech Motor Disorders</td>
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<td>CSD 575. Phonological Processes</td>
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<td>CSD 580. Stuttering Disorders</td>
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<td>CSD 590. Motor Speech Disorders</td>
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<td>CSD 610. Fluency Disorders</td>
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<td>CSD 615. Motor Speech Disorders</td>
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<td>CSD 630. Inhalation and Exhalation</td>
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<td>CSD 635. Motor Speech Disorders</td>
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<td>CSD 640. Advanced Children’s Language Disorders</td>
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<td>CSD 718</td>
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<td>Area 4.</td>
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<tr>
<td>Category D: Research and Thesis</td>
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<tr>
<td>CSD 717, 791, 792, 793, or 817, 917. Directed Research</td>
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<tr>
<td>CSD 700. Thesis</td>
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</table>
Financial Aid

Graduate assistantships are available on a competitive basis to graduate students. In addition, fellowships funded by the Scottish Rite Foundation of Virginia are available to graduate students admitted to the graduate program in speech-language pathology. Scottish Rite Fellowships are restricted to Virginia residents who intend to pursue positions with language-impaired children in Virginia. Contact the Graduate Coordinator in the department for future information.

Course Offerings

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

CSD 501. Workshops in Speech-Language Pathology and Audiology. 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 510. Seminar in Audiology (Clinical Methods). 1 - 3 credits.
This course addresses selected topics, issues and other content designed to prepare students for clinical practice in audiology. Content is treated on an introductory level with emphasis upon problem solving, integration of information across didactic and practical knowledge toward clinical skill development.

CSD 511. Instrumentation in Audiology. 4 credits.
A study of topics and procedures of instrumentation that are fundamental to clinical practice including electricity and electronics, filters, calibration, acoustical impedance, analog and digital signals, and acoustics.

CSD 512. 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 513. Anatomy and Physiology of the Central Auditory Pathway. 2 credits.
Advanced study of the anatomy and physiology of the central auditory pathway from the cochlear nucleus to the auditory cortex. Neural bases for encoding cues for intensity, frequency and localization will be discussed. Normal mechanisms will be discussed in light of diagnosis and treatment of pathological processes.

**CSD 514. Audiologic Assessment. 3 credits.**

A study of auditory disorders and the measurement of hearing including an overview of behavioral and physiologic measures. Emphasis is placed on the behavioral evaluation of the peripheral system, tests of cochlear and retrocochlear differentiation and immittance measures.

**CSD 515. Human Communication and Aural Rehabilitation. 3 credits.**

This course focuses on the impact of hearing loss on human communication across the lifespan. Aural habilitation and rehabilitation procedures common to the 20th century are compared with today's trends and with projected advances expected for the 21st century.

**CSD 519. Audiology Clinical Practicum A. 3 credits.**

Supervised clinical practicum at the Communication Sciences and Disorders Applied Laboratory and a variety of other settings. Lab fee required. Prerequisite: CSD 510

**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 521. Speech Perception: Models and Theories. 3 credits.**

Advanced study of speech perception including acoustics, intelligibility, instrumentation and theoretical models. Emphasis will be placed on the impact of hearing loss on perceptual abilities.

**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 523. Psychoacoustics. 3 credits.**
A study of the relationship between a sound stimulus and the behavioral response it produces in a listener.

**CSD 524. Audiologic Assessment II. 3 credits.**

A study of various measures of auditory function including an overview of common physiologic techniques of hearing and balance, tests of pseudohypacusis, and central auditory dysfunction. Consideration is provided to variation in technique for different age populations and the difficult-to-test.

**CSD 525. Seminar in Audiology (Clinical Methods II). 1-3 credits.**

This course addresses selected topics, issues and other content designed to prepare students for clinical practice in audiology. Content is treated on an introductory level with emphasis upon problem solving, integration of information across didactic and practical knowledge toward clinical skill development.

**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 supervisee or supervisor.

**CSD 527. Aging and Communication. 1 credit.**

A study of the processes underlying normal aging and the potential effects of senescence on communication abilities. Emphasis is placed on the speech, language, and cognitive therapeutic interventions relative to geriatric care. Prerequisite: CSD 641. Language Disorders in Adults (recommended).

**CSD 528. Autism. 1 credit.**

Focus on demographics of autism spectrum disorders, historical and contemporary diagnostic and treatment procedures, and the role of the speech-language pathologist in interdisciplinary programs.

**CSD 529. Augmentative Communication. 1 credit.**

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. 1 credit.**

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 531. Industrial Audiology. 2 credits.**

A study of the effects of noise upon humans and topics relevant to hearing conservation, such as noise assessment and risk factors, hearing protectors, audiometric testing, employee training and record keeping.

**CSD 532. Counseling in Audiology. 2 credits.**

This course introduces graduate students to counseling within the discipline of audiology, particularly treating special needs of individuals and the families/caregivers of individuals with hearing loss. Indicators that suggest counseling as an additional service are also covered.

**CSD 533. Business Applications in Audiology. 3 credits.**

This course focuses on the various professional and business practices and regulations that impact audiology. Topics include licensure, certification, ethical and professional standards of practice as well as practice management and business methods common to the practice of audiology.

**CSD 539. Audiology Clinical Practicum B. 2 credits.**

Supervised clinical practicum at the Communication Sciences and Disorders Applied Laboratory and a variety of other settings. Lab fee required. Prerequisites: CSD 525, 519.

**CSD 540. Language Development and Disorders in Children for School Personnel. 3 credits.**

A comprehensive study of the language development of children, the various characterizations of language impairment in children, and intervention issues and strategies with a particular focus on academic and educational implications and interdisciplinary management in daycare, preschool and school environments.

**CSD 544. 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 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.
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. This particular practicum course must be completed as part of the total 10 credits in practicum courses. Lab fee required.

**CSD 582. Intern Speech Practicum. 2 credits.**

Speech-language pathology practicum. This practicum course must be completed as part of the total 10 credits in practicum courses. Satisfactory completion of the course requires participation in professional development activities as outlined in the course syllabus, in addition to clinical practicum. Prerequisites: CSD 581, CSD 623, and CSD 640.

**CSD 583. Summer Intern Speech Practicum. 2 credits.**

Speech-language pathology practicum. Prerequisites: CSD 581, CSD 623, and CSD 640.

**CSD 584. Intern Speech Practicum. 2 credits.**

Speech-language pathology practicum. Prerequisites: CSD 581, CSD 623, and CSD 640.

**CSD 585. Intern Speech Practicum. 2 credits.**

Speech-language pathology practicum. Prerequisites: CSD 581, CSD 623, and CSD 640.

**CSD 586. Intern Speech Practicum. 2 credits.**

Speech-language pathology practicum. Prerequisites: CSD 581, CSD 623, and CSD 640.

**CSD 600. Research in Audiology. 3 credits.**

Survey of research methods in audiology. Students will research, write, and present reports. Topics covered will include the WWW and the library as research resources.

**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 610. Seminar in Audiology (Tinnitus). 1-3 credits.
This course addresses selected topics, issues and other content designed to prepare students for clinical practice in audiology. Content is treated on an intermediate level with emphasis upon problem solving, integration of information across didactic and practical knowledge toward clinical skill development.

CSD 611. Neurophysiologic Measures I. 5 credits
Study of the neurophysiological and electrophysiological properties of the human peripheral and central auditory pathways.

CSD 612. Introduction to Hearing Aids. 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 619. Audiology Clinical Practicum C. 3 credits.
Supervised clinical practicum at the Communication Sciences and Disorders Applied Laboratory and a variety of other settings. Prerequisite: CSD 539 or permission of instructor.

CSD 620. Seminar in Audiology (Clinical Research). 1-3 credits.
This course addresses selected topics, issues and other content designed to prepare students for clinical practice in audiology. Content is treated on an intermediate level with emphasis upon problem solving, integration of information across didactic and practical knowledge toward clinical skill development.

CSD 621. Neurophysiologic Measures II. 5 credits
Advanced study of the neurophysiological and electrophysiological properties of the human auditory and related sensory and motor systems.
CSD 622. Advanced Hearing Aids. 4 credits

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

CSD 623. Advanced Study of Phonological Disorders. 3 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. Audiology Clinical Practicum D. 3 credits.

Supervised clinical practicum at the Communication Sciences and Disorders Applied Laboratory and a variety of other settings. Prerequisite: CSD 619 or permission of instructor.

CSD 631. Neurophysiologic Measures III. 3 credits

Advanced study of the anatomy and physiology of the oculomotor and vestibular systems. Detailed study of basic and advanced concepts in clinical testing, treatment and mechanisms of rehabilitation of disorders of the vestibular and balance system.

CSD 632. Processes and Disorders of Speech Fluency. 2 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 633. 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 639. Audiology Clinical Rotation A. 3 credits.

Supervised clinical practicum at clinical settings external to the Communication Sciences and Disorders Applied Laboratory. Prerequisites: CSD 629, and permission of instructor and head of department.
**CSD 640. Advanced Children's Language Disorders. 3 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. 2 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. 2 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 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. Intern Speech Practicum. 1 credit.

Supervised speech-language pathology practicum. This particular practicum course must be completed as part of the total 10 credits in practicum courses. Lab fee required. Prerequisites: CSD 582, CSD 583, CSD 584, CSD 585, or CSD 586 and, if in an adult setting off-campus, CSD 544.

CSD 683. Extern Speech Practicum. 1 credit.

Supervised speech-language pathology practicum. Prerequisites: CSD 682 and, if in an adult setting, CSD 544, and permission of head of department.

CSD 684. Extern Speech Practicum. 1 credit.

Supervised speech-language pathology practicum. Prerequisites: CSD 682 and, if in an adult setting, CSD 544, and permission of head of department.

CSD 685. Extern Speech Practicum. 1 credit.

Supervised speech-language pathology practicum. Prerequisites: CSD 644, CSD 682, and permission of head of department.

CSD 686. Extern Speech Practicum. 1 credit.

Supervised speech-language pathology practicum. Prerequisites: CSD 644, CSD 682, and permission of head of department.

CSD 687. Extern Speech Practicum. 1 credit.

Supervised speech-language pathology practicum. Prerequisites: CSD 644, CSD 682, and permission of head of department.

CSD 688. Extern Speech Practicum. 1 credit.

Supervised speech-language pathology practicum. Prerequisites: CSD 644, CSD 682, and permission of head of department.

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. Students should talk with their advisers 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.

**CSD 710. Seminar in Audiology (Geriatric Audiology). 1-3 credits.**

This course addresses selected topics, issues and other content designed to prepare students for clinical practice in audiology. Content is treated on an advanced level with emphasis upon problem solving, integration of information across didactic and practical knowledge toward clinical skill development.

**CSD 711. Pediatric Audiology. 3 credits.**

Normal and pathological development of the auditory system; pediatric audiometric assessment; auditory and communication aspects in the habilitation of hearing-impaired children.

**CSD 717, 817, 917. Directed Research. 1 - 3 credits.**

This course sequence provides opportunity for research in an area of special interest as directed by a faculty mentor. Emphasis on developing a question and hypothesis, selecting subjects and variables to investigate, collecting and analyzing data, and reporting results should provide the student with a meaningful research experience.

**CSD 718, 818, 918. Independent Study. 1- 3 credits.**

This course sequence provides opportunities for in-depth study in an area of special interest as directed by a faculty member.
CSD 719. Audiology Clinical Rotation B. 3 credits.
Supervised clinical practicum at clinical settings external to the Communication Sciences and Disorders Applied Laboratory. Prerequisite: CSD 639 and permission of head of department.

CSD 720. Seminar in Audiology (Cochlear Implants). 1 credit.
This course addresses selected topics, issues and other content designed to prepare students for clinical practice in audiology. Content is treated on an advanced level with emphasis upon problem solving, integration of information across didactic and practical knowledge toward clinical skill development.

CSD 721. Hearing Aids & Signal Processing. 3 credits.
Study of advanced concepts in signal processing as applied to real-world applications in digital speech processing, active noise reduction, and applications in advanced hearing device designs and telecommunications.

CSD 729. Audiology Externship. 3 credits.
Supervised clinical practicum at clinical settings external to the Communication Sciences and Disorders Applied Laboratory. Prerequisite: CSD 719 and permission of head of department.

CSD 731. Medical Audiology. 2 credits.
Advanced study of the diagnosis and evaluation of hearing and balance disorders.

CSD 791. Directed Research. 1 credit.
This course provides the opportunity for research in an area of special interest as directed by a faculty mentor. Students are required to participate in gathering data and observing the process of developing new knowledge through research. Emphasis is placed on the student becoming an expert consumer of research, as well as gaining an appreciation for research methodology.

CSD 792. Directed Clinical Research. 1 credit.
This course provides the opportunity for research in an area of special interest as directed by a faculty mentor. Students are required to participate in gathering data and observing the process of developing new knowledge through research. Emphasis is placed on the student becoming an expert consumer of research, as well as gaining an appreciation for research methodology.
CSD 793. Directed Clinical Research. 1 credit.

This course provides the opportunity for research in an area of special interest as directed by a faculty mentor. Students are required to participate in gathering data and observing the process of developing new knowledge through research. Emphasis is placed on the student becoming an expert consumer of research, as well as gaining an appreciation for research methodology.

CSD 805. Quantitative Measurement of Speech and Voice. 3 credits.

Principles for applying instruments in clinical approaches to speech pathologies. A survey of the principal equipment and instrumentation which will be available to Speech Pathologists in their professional activities within medicine, education and private practice.

CSD 810. Professional Seminar in Audiology. 1-3 credits.

This course addresses selected topics, issues and other content designed to prepare students for clinical practice in audiology. Content is treated on an expert level with emphasis upon problem solving, integration of information across didactic and practical knowledge toward clinical skill development.

CSD 819. Audiology Externship A. 1-6 credits.

Full-time clinical practicum with limited supervision at clinical settings external to the Communication Sciences and Disorders Applied Laboratory. Prerequisite: CSD 729 and permission of instructor and head of department.

CSD 820. Professional Seminar in Audiology. 1-3 credits.

This course addresses selected topics, issues and other content designed to prepare students for clinical practice in audiology. Content is treated on an expert level with emphasis upon problem solving, integration of information across didactic and practical knowledge toward clinical skill development.

CSD 829. Audiology Externship B. 1-6 credits.

Full-time clinical practicum with limited supervision at clinical settings external to the Communication Sciences and Disorders Applied Laboratory. Prerequisite: CSD 819 and permission of instructor and head of department.

CSD 830. Professional Seminar in Audiology. 1-3 credits.

This course addresses selected topics, issues and other content designed to prepare students for clinical practice in audiology. Content is treated on an expert level with
emphasis upon problem solving, integration of information across didactic and practical knowledge toward clinical skill development.

**CSD 839. Audiology Externship C. 1-6 credits.**

Full-time clinical practicum with limited supervision at clinical settings external to the Communication Sciences and Disorders Applied Laboratory. This course may be repeated with permission of instructor for up to 6 credits. Prerequisite: CSD 829 and permission of instructor and department head.

**CSD 841. Teaching Experience in CSD. 3 credits.**

With a faculty member, the student will engage in team-teaching of selected undergraduate/graduate course(s).

**CSD 842. Supervision Experience in CSD. 3 credits.**

Students enrolled in the course may be supervised in a clinical assignment or, if ASHA certification has been awarded, as a supervisor. Students and supervisors will be equipped for participation in the clinical teaching process. The tasks and skills of clinical teaching is a specialty area of practice as it relates to the interaction between a clinician and client. Clinical teaching will be examined through observation, conferences, review of records, and communication skills. Competencies for the student clinician and for the clinical teacher will be incorporated into presentation of research in supervision and current trends in work settings.

**CSD 850. Advanced Seminar in CSD: Adult Language Disorders. 2-3 credits.**

This seminar focuses on the current views of etiology, assessment and treatment procedures of adult language disorders.

**CSD 851. Advanced Seminar in CSD: Child Language Disorders. 2-3 credits.**

This seminar focuses on the current views of etiology, assessment and treatment procedures of child language disorders.

**CSD 852. Advanced Seminar in CSD: Communication Enhancement. 2-3 credits.**

This seminar focuses on the current views of assessment and treatment procedures of communication enhancement.

**CSD 853. Advanced Seminar in CSD: Aerodigestive Concerns. 2-3 credits.**

This seminar focuses on the current views of etiology, assessment and treatment procedures of aerodigestive disorders.
CSD 854. Advanced Seminar in CSD: Early Intervention. 2-3 credits.
This seminar focuses on the current views of assessment and treatment procedures of early intervention.

CSD 855. Advanced Seminar in CSD: Fluency Disorders. 2-3 credits.
This seminar focuses on the current views of etiology, assessment and treatment procedures of fluency disorders.

CSD 856. Advanced Seminar in CSD: Normal Communication Development. 2-3 credits.
This seminar focuses on the current views of human communication development over the life span.

CSD 857. Advanced Seminar in CSD: Motor Speech Disorders. 2-3 credits.
This seminar focuses on the current views of etiology, assessment and treatment procedures of motor speech disorders.

CSD 858. Advanced Seminar in CSD: Neurolinguistics. 2-3 credits.
This seminar would be devoted to study and discussion of one or more topics current in neurolinguistic investigation. Possible topics include: PET and fMRI studies of language processing; event-related potentials; connectionist models of speech errors and paraphasias; morphosyntactic disorders in language disorders; role of prosody in language processing and neurological disorders; pragmatic studies of populations with brain damage.

CSD 859. Advanced Seminar in CSD: Clinical Phonology Disorders. 2-3 credits.
This seminar focuses on the current views of etiology, assessment and treatment procedures of phonological disorders.

CSD 860. Advanced Seminar in CSD: Disorders of Resonance. 2-3 credits.
This seminar focuses on the current views of etiology, assessment and treatment procedures of disorders of resonance.

CSD 861. Advanced Seminar in CSD: Voice Disorders. 2-3 credits.
This seminar focuses on the current views of etiology, assessment and treatment procedures of voice disorders.

CSD 862. Advanced Seminar in CSD: Selected Topics I. 2-3 credits.
This seminar focuses on advanced study of selected topics of interest in communication sciences and disorders. May be repeated for credit.

**CSD 865. Advanced Seminar in CSD: Infant Language and Speech Perception. 2-3 credits.**

Topics include infant speech perception, production and the link between production and perception, infant language development in the larger cognitive context highlighting the links between language, memory, motor skills, vision, innate ability and consciousness, the impact of developmental disorders on early language development, and how ontogeny can inform phylogeny. Transcription of infant speech, identification of words and play activities, and analysis of speech perception data are included.

**CSD 866. Advanced Seminar in CSD: Genetics Bases of Communication Disorders. 2-3 credits.**

This seminar will examine current knowledge with regard the genetic bases of a range of hearing, speech, and language impairments. Implications for clinical intervention and future research directions will be explored.

**CSD 920. Doctoral Dissertation in CSD. 1-12 credits.**

Culminating research project.

**CSD 921. Dissertation Continuance. 1 credit.**

Required continuance for dissertation after 12 credit earned for CSD 920.
Mission

The mission of the James Madison University professional education unit is to prepare caring, knowledgeable, skilled, and reflective educators who believe that all students can learn and succeed. Our candidates and faculty are committed to lifelong learning and aspire to meet educational needs in a changing, pluralistic, and democratic society. The personal and professional development of candidates is accomplished by emphasizing excellence and continuous innovation in quality undergraduate, graduate, and professional programs.

The college is committed to providing:

- Graduate programs that emphasize advanced knowledge in a specialty area and the development of effective leadership and professional skills for addressing the needs of a changing society.
- Continuing professional development and service programs in cooperation with public and private schools and agencies, other colleges, institutions, and businesses.

The undergraduate and graduate teacher education programs are accredited by the National Council for Accreditation of Teacher Education and approved by the Virginia
State Board of Education.

The basic philosophy of the college is reflected in the following goals:

- To educate men and women for the multiple professions included in the college at both the undergraduate and graduate levels, not merely by transmitting skills and knowledge but by stimulating creativity, developing cognitive abilities and encouraging the testing of hypotheses and reinterpretation of the human experience.
- To encourage a balanced faculty orientation toward teaching, research, scholarship, and community service and professionalism that recognizes individual strengths and preferences of the college's faculty.
- To create an environment that fosters an atmosphere of open communication among candidates, faculty members and community.
- To anticipate societal needs and provide necessary resources for implementing effective on- and off-campus programs now and in the future.

Toward these ends the college offers a variety of graduate level programs:

- Adult Education and Human Resource Development
- Early Childhood Education (Grades NK-3)
- Educational Leadership
- Educational Technology
- Elementary Education (PK-6)
- Elementary Education (Grades 4-6)
- Middle Education (Grades 6-8 and 4-8)
- Reading
- Secondary Education (Grades 6-12)
- Special Education

Courses offered by the College of Education are listed here.

The College of Education and the Department of Mathematics and Statistics jointly offer the Master of Education in Mathematics.
Academic Programs: Academic Units

Program Information: English

English

Phone: (540) 6202/6170

Web site: http://www.jmu.edu/english

Dr. Robert Hoskins, Department Head

Dr. Annette Federico, Graduate Coordinator

Professors


Associate Professors

D. Bankert, S. Cote, M. Favila, L. Henigman, B. Johnson, L. Kutchins, R. Osotsi

Assistant Professors

P. Fulton, M. Rebhom, M. Smith-Bermis, M. Thompson

Admission

Students must submit scores for the Graduate Record Examination General Test (GRE), official undergraduate transcripts and two letters of recommendation as part of their applications to the College of Graduate and Professional Programs. A writing sample or statement of purpose is also recommended.

Mission

The English department emphasizes preparation for Ph.D. work, but we accept all qualified students who have an interest in literature, critical theory, or creative writing. We welcome students who, for whatever reasons, are eager to read literature on an advanced level,
who enjoy research and writing, and who appreciate the responsibilities and pleasures of pursuing one’s intellectual goals within an academic community.

Goals

- to excite and maintain in students a permanent desire for an expanded knowledge and understanding of the world through the study of diverse authors and genres
- to help students to discover and appreciate the English language, and to learn how richly language clothes our responses to the world
- to actively promote, through formal study, both the self-examination and the imaginative understanding that are among the central values of advanced study in the humanities
- to encourage in post-baccalaureate students a broader, more formal inquiry into specific authors and movements in both western and non-western literatures, and to teach them by example the professional practices of reading and interpretation
- to cultivate the practical talents gained by the study of literature: the ability to recognize the functions of analysis and synthesis in one’s professional life, to construct an argument, to think critically, to write efficiently, cleanly, and gracefully, to develop confidence in the validity of one’s judgments about many kinds of writing, and to learn to see the interstices as well as the architectural whole in widely different encounters with the written word
- to stimulate the kind of intellectual self-scrutiny and the passion for reading that will lead to successful work on the doctoral level, and to help students gain admittance into excellent Ph.D. programs throughout the country
- to provide an opportunity for qualified students who are considering teaching as a career to work with faculty in large sections of sophomore literature classes or to teach their own first-year composition class through the awarding of graduate and teaching assistantships
- to foster in those who are interested in pursuing careers in writing and editing, politics, business, non-profit work, or otherwise obviously English-related fields the kinds of attention and analysis that are concomitant with the formal study of vastly different kinds of writing — fiction, poetry, and drama, argumentation and analysis, opinion, review essays, creative nonfiction
- to both broaden and deepen the needed practical knowledge of the fields of writing, literature and literary history for future English teachers in high schools, business schools and community colleges
- to offer career teachers of English a place to improve their knowledge of these fields and rejuvenate their commitment to the study and teaching of literature
- to enhance the professional opportunities of career teachers of English through advanced study
- to contribute to fulfilling the requirements for the M.A.T. degree

The JMU graduate faculty in English is committed to the belief that encountering and interacting with literature, thinking critically about texts, learning the skills of scholarly research, and writing about one’s ideas effectively provide the kind of education from which the world continues to benefit.

To fulfill these beliefs, we offer students a superior faculty who are recognized for their scholarship, their excellence in teaching, and their supportive relationships with graduate students. Most classes are small seminars.

The Department of English offers the Master of Arts degree.
Degree Requirements

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 required for all students of the Master of Arts degree. Toward the end of their course work, students must pass a formal examination based on a required reading list in order to receive the degree.

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 creative 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.

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

English

ENG 501. Professional Seminar in College Composition. 3 credits.

Practical examination of the content and methodology of freshman English (GWRIT 101, 102) for the training of beginning teaching assistants. (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.

Advanced readings and research in Old English poetry and prose.

ENG 505. Middle English. 3 credits.

Middle English language and representative literary works.

ENG 508. History of Literary Criticism. 3 credits.
Academic Programs: Academic Units

Advanced readings in the nature, function, and development of literary criticism, from the classics to postmodernism.

**ENG 509. Contemporary Critical Practices. 3 credits.**

Advanced study of 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.**

Advanced, in-depth study of one major author or selected group of authors from Anglo-American or alternative cannons. Major research project. (May be repeated for credit when course content changes.)

**ENG 512. Special Topics Seminar. 3 credits.**

Advanced, in-depth study in a literary school, movement, genre, or other literary or linguistic topic. Major research project. (May be repeated for credit when course content changes.)

**ENG 581. Poetics. 3 credits.**

Advanced study of poetic forms for writers with emphasis on theory and current practices. (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.)
ENG 595A. Careers in English. 1 credit.

The graduate-level component of ENG 295A. Graduate students will act as assistants to the instructor by leading small group discussions, conducting workshops in resume writing and other job-related skills, reading and evaluating student portfolios, and tutoring. Graduate students will also identify prospective employers and assemble credentials that emphasize writing and research skills. Prerequisite: graduate student status.

ENG 595B. Graduate Internship in English. 1-3 credits.

English graduate student internships. Graduate students identify a prospective employer and work as an intern during the summer, fall or spring semester. Academic work may include reflective essays, bibliographies, resume writing and meetings or presentations with graduate advisors. Prerequisite: graduate student status.

ENG 599. Bibliography and Methods of Research. 3 credits.

Advanced training in the use of scholarly materials, procedures and techniques, including scholarly writing and computer-based library and research technology, for graduate-level work. (Required for all Master of Arts students.)

ENG 602. Growth and Structure of the English Language. 3 credits.

History of the English language with attention to the changing forms of speech in phonology, morphology, syntax and semantics.

ENG 604. Contemporary Approaches to English Linguistics. 3 credits.

Survey of English linguistics and its current applications.

ENG 615. Chaucer. 3 credits.

Major works, with attention to their medieval context as well as traditional and contemporary critical approaches.

ENG 618. Medieval Drama. 3 credits.

Drama from its liturgical foundations through the morality play, with emphasis on historical context and modern critical approaches.

ENG 620. Shakespeare. 3 credits.

Selected plays by Shakespeare.

ENG 625. Studies in 16th-Century Literature. 3 credits.
Major British nondramatic works of the early Renaissance.

ENG 628. Elizabethan and Jacobean Drama. 3 credits.

Drama from the morality plays to 1642.

ENG 630. Studies in 17th-Century Literature. 3 credits.

Authors and movements in the literature of the 17th century.

ENG 635. Milton. 3 credits.

Milton's poetry and prose (along with selected works by contemporary writers), with attention to the political, religious and cultural milieu in which Milton and his contemporaries worked.

ENG 640. Studies in Restoration and 18th-Century Literature. 3 credits.

Authors of the era studied in the context of the cultural and intellectual currents of the time.

ENG 645. Studies in 19th-Century British Literature. 3 credits.

Authors and movements in the literature of the 19th century.

ENG 651. Studies in American Romanticism. 3 credits.

Works by authors such as Poe, Hawthorne, Emerson, Thoreau, Melville and Whitman.

ENG 656. Studies in American Realism. 3 credits.

Works by authors such as Mark Twain, William Dean Howells, Stephen Crane, Henry James or others.

ENG 658. Studies in Southern Literature. 3 credits.

Major works in Southern Literature; content may be limited either to works before 1945 or to contemporary works. (May be repeated for credit when content changes.)

ENG 661. Studies in 20th-Century British Literature. 3 credits.

Works in selected genres.

ENG 662. Studies in 20th-Century Literature of the United States. 3 credits.
Academic Programs: Academic Units

ENG 664. Modernist Drama. 3 credits.
Plays from Ibsen through Pinter.

ENG 666. Post-Modernist Drama. 3 credits.
Plays since Pinter.

ENG 671. Studies in World Literature. 3 credits.
Non-U.S., non-British literature in English or in translation. Content may be limited by period or by geographical, cultural, political or thematic parameters. (May be repeated for credit when content differs.)

ENG 672. Studies in African-American Literature. 3 credits.
African-American authors of the 20th century in the context of the cultural and intellectual currents of their time.

ENG 673. Studies in Caribbean Literature. 3 credits.
Advanced study of the literary achievement of novelists, poets and dramatists of the Caribbean, with emphasis on diverse theoretical and historical approaches.

ENG 674. Studies in Women’s Literature. 3 credits.
Works by, about, and relating to women, with attention to feminist criticism.

ENG 675. Reading and Research. 3 credits.
Supervised reading and research in the literature of the student’s major field. (Admission by permission of the director of graduate studies; may not be repeated.)

ENG 683. Advanced Poetry Writing. 3 credits.
Individualized projects and workshops for second-year students. (May be included in the concentration in creative writing; may be repeated once; may be used once for preparation and development of a thesis.) Prerequisite ENG 583.

ENG 684. Advanced Fiction Writing. 3 credits.

Works in selected genres.
Individualized projects and workshops for second-year students. (May be included in the concentration in creative writing; may be repeated once; may be used once for preparation and development of a thesis.) Prerequisite ENG 584.

**ENG 685. Advanced Independent Work in Creative Writing. 3 credits.**

Individualized projects in genres other than poetry or prose fiction for second-year students. (May be included in the concentration in creative writing; admission by permission of the instructor; may be repeated once; may be used once for preparation and development of a thesis.)

**ENG 698. Comprehensive Continuance. 1 credit.**

Continued preparation for the comprehensive examinations. (May be repeated as needed.)

**ENG 699. Thesis Continuance. 2 credits.**

Continued study, research and writing for the thesis. (May be repeated as needed.)

**ENG 700. Thesis. 6 credits.**

Required for Master of Arts candidates in the creative writing concentration. This course is graded on a satisfactory/unsatisfactory (S/U) basis.
Academic Programs: Academic Units

Program Information: Health Sciences

**Health Sciences**

Phone: (540) 568-6518

Web site: [http://www.healthsci.jmu.edu/](http://www.healthsci.jmu.edu/)

The department of Health Sciences oversees programs in Health Sciences, Occupational Therapy and Physician Assistant Studies.

**Dr. Robert Koslow, Department Head**

**Dr. Tammy Wagner, Ph.D., R.D., Graduate Coordinator, Dietetics and Nutrition & Physical Activity**

**Mr. James Hammond, P.A.-C, Graduate Coordinator, Physician Assistant Studies**

**Mr. Jeff Loveland, O.T.R., Graduate Coordinator, Occupational Therapy Studies**

**Dr. Maria T. Wessel, Ed.D., CHES., Graduate Coordinator, Public Health Education**

**Professors**


**Associate Professors**


**Assistant Professors**

P. Bailey, C. Cadieux, K. Lewis, S. Maiowski, C. Peterson, J. Wenos

**Admission Requirements**
Admission requirements for programs in the Health Science department vary by program. Refer to the specific program for admission criteria and deadlines.

**Mission**

The graduate programs in Health Sciences are committed to preparing students to become evidence-based critical thinkers in the health sciences. Specifically, these programs build upon the undergraduate health sciences programs by providing a more detailed knowledge base that is fortified by self-directed learning experiences and the development of practical, clinical, and/or research skills.

**Goals**

The specific goals of the graduate programs in Health Sciences are designed to help students develop their critical thinking abilities while expanding their knowledge in the rapidly changing health-related environments. Specifically, students will be able to:

- critically evaluate the current research in the ever-broadening field of health.
- access current literature in the health fields.
- interpret current health-related research.
- develop basic research skills.
- describe and evaluate various health education models.
- critically evaluate past and present health care administration strategies.

The mission and goals are based, in part, on the Standards for the Preparation of Graduate-Level Health Educators.

The mission of the Master of Science degree program in Health Sciences: Dietetics concentration is to provide graduate education for practicing dietitians, those seeking to become Registered Dietitians, and for those from closely related fields who want to pursue graduate study in nutrition. Each student in the program will complete a research project in a selected area.

The mission of the Dietetic Internship at James Madison University is to provide a six-month supervised dietetic experience to qualified students in the Master of Science program in Health Sciences – Dietetics in order for them to achieve the competence of entry-level dietitians and the ability to apply current research findings to dietetics practice.

In the Master of Science programs, courses must be selected with the approval of the major adviser in accordance with the purposes of the student. Students selecting a major 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 or dietetics 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.

**Master of Science Concentrations**

**Health Sciences: Public Health Education**

**Dr. Maria T. Wessel, Graduate Concentration Coordinator**

Phone: (540) 568-3955

This 30-credit hour master's program will enable graduates to demonstrate a core level of knowledge and skills in relevant areas of public 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 adviser 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 Public Health Education requires completion of five core courses (15 credits), elective courses chosen with approval of the department academic adviser and either a directed research or thesis option.

### Masters in Public Health Education Degree Requirements

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<th>Credit Hours</th>
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<td><strong>Fall Semester</strong></td>
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<td>HTH 655. Research Techniques</td>
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<td>HTH 558. Health Planning</td>
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<td><strong>First Year</strong></td>
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<td><strong>Spring Semester</strong></td>
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<td>MATH 522. Statistics for Researchers</td>
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<td>HTH 552. Health Behavior: Theory, Research and Practice</td>
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<td><strong>Second Year</strong></td>
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Academic Programs: Academic Units

**Directed Research Option**

Students pursuing this option will complete 15 credit hours in core courses, 9 credit hours in electives in health sciences, and 6 credit hours of directed research. This research may be more applied and have a broader breadth 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**

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 College of Graduate and Professional Programs and the thesis guidelines and deadlines of the Department of Health Sciences.

**Health Sciences: Dietetics Concentration**

**Dr. Tammy Wagner, Graduate Concentration Coordinator**

Phone: (540) 568-6570

A Master of Science degree may be pursued with a major in health sciences and a concentration in dietetics. The program includes course work in advanced nutritional biochemistry, applied nutrition, and research methods. Students must plan, conduct, and publish a research project. Students who want to study in the area of nutrition but have a limited background will need to fulfill prerequisite requirements in nutrition, organic chemistry, biochemistry, and statistics prior to full admission to the program.

**Health Sciences: Combined Master of Science/Dietetic Internship Program (MS/DI)**

This program includes graduate education as outlined above and supervised practice experience to provide the skills necessary for professional practice in dietetics. Students will acquire new knowledge through course work and research and will apply that advanced knowledge to dietetic practice in a supervised setting.

Students with a Bachelor of Science degree in nutrition or a related field who meet American Dietetic Association (ADA) Didactic Program in Dietetics (DPD) requirements are eligible for admission to the combined MS/DI program. Students with a BS in a related field may have appropriate background for graduate study in nutrition. However, it is necessary to complete all requirements of a DPD prior to application to the DI. The department has a CADE-accredited undergraduate program to facilitate completion of DPD requirements.
Certain courses may be taken at the graduate level to meet these requirements.

The MS/DI at James Madison University is accredited by the Commission on Accreditation for Dietetics Education (CADE) of the American Dietetic Association. Questions about accreditation can be directed to:

CADE
216 W. Jackson Blvd.
Chicago, IL 60606-6995
(312) 899-4876

The graduate program is designed so that students take a full credit load (9-12 hours) of classes during the first year on the JMU campus prior to the dietetic internship rotations. All M.S. degree requirements, including prerequisite courses and research, must be completed prior to the start of the internship rotations. Most of the graduate classes in dietetics are offered in the evening.

The internship involves six months of supervised practice in clinical nutrition, community nutrition, and food service management. Upon completion of the supervised practice competencies and all requirements for the M.S. degree, graduates will receive a signed Verification Statement and may apply for eligibility to take the Registration Examination for Dietitians.

Application Procedure

Students will apply to the Dietetic Internship and the Master of Science program in Health Sciences (concentration in Dietetics) at the same time. All required materials must be submitted by the deadline. Incomplete applications will not be considered.

To be considered for the combined MS/DI program, complete applications must be received by February 15th. Application materials for graduate admission must be sent to:

College of Graduate and Professional Programs
MSC 6702, James Madison University
Harrisonburg, VA 22807

Application forms are available at http://www.jmu.edu/gradprograms and application may be made online. Sealed transcripts of all previous college and university work can be included with the mailed application (preferred) or sent directly to the College of Graduate and Professional Programs. A complete graduate application includes:
Academic Programs: Academic Units

- JMU College of Graduate and Professional Programs application (to be completed online).
- An official transcript in sealed envelope from EVERY college or university attended.
- Official results of the Graduate Record Examination (GRE) sent directly from the testing agency.

The Dietetic Internship application packet must be postmarked by February 15th and sent to:

Dr. Cynthia Cadieux
Department of Health Sciences MSC 4301
James Madison University
Harrisonburg, VA 22807

Applications are also available at the department Web site.

A complete DI application packet must contain the following items:

- Completed dietetic internship application.
- Signed DPD Verification Statement or Intent to Complete form.
- A typewritten statement of educational objectives and professional goals (2 pages double spaced, maximum).
- Three (3) letters of recommendation which include the ADA standard recommendation form AND a separate statement of the applicant’s suitability for graduate study. Letters must be in a sealed envelope with the signature of the author across the back flap.
- An official transcript in sealed envelope from EVERY college or university attended.
- A photocopy of official GRE scores (official results of the GRE must be sent directly to the JMU College of Graduate and Professional Programs).
- A $30.00 check made payable to James Madison University.

All applicants must participate in computer matching through D&D Digital Systems. Applicants should obtain instructions and a mark/sense card to prioritize their internship preferences from their DPD Director or D&D Digital. This request should be made far enough in advance to allow turnaround time for submitting by the February 15 postmark deadline. D&D Digital charges a fee for computer matching that is due with the applicant’s prioritized ranking. Address requests to:

D&D Digital Systems
304 Main Street, Suite 301
Ames, IA 50010-6148
Minimum requirements for admission to the M.S./Dietetic Internship program are a 2.8 overall GPA, a 3.0 GPA in major courses, plus a combined minimum score of 800 with a 3.5 in analytical writing on the GRE. Information about the GRE may be obtained from:

Educational Testing Service

Box 1025
Berkeley, CA 94701

or

Box 592
Princeton, NJ 08540

### Dietetics Concentration Degree Requirements

<table>
<thead>
<tr>
<th>Minimum Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HTH 655/NUTR 660. Research Techniques/Research Methods in Dietetics</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>MATH 522. Statistics for Researchers</strong></td>
<td>3</td>
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<tr>
<td><strong>NUTR 655. Integrated Nutrition</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>NUTR 654. Current Topics in Foods</strong></td>
<td>3</td>
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</tbody>
</table>

**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)
<table>
<thead>
<tr>
<th>Academic Programs: Academic Units</th>
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<tbody>
<tr>
<td>NUTR 695. Seminar/Research Interpretation in Dietetics (one credit)</td>
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<td>Choose one of the following options: 12</td>
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<tr>
<td>Internship option:</td>
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<tr>
<td>NUTR 650. Nutrition Education/Counseling 3</td>
</tr>
<tr>
<td>NUTR 651. Medical Dietetics Practicum</td>
</tr>
<tr>
<td>NUTR 652. Nutrition Assessment 1</td>
</tr>
<tr>
<td>NUTR 656. Food Systems Management Practicum</td>
</tr>
<tr>
<td>Noninternship option (choose four of the following):</td>
</tr>
<tr>
<td>NUTR 545. Exercise and Nutrition 2</td>
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<tr>
<td>NUTR 555. Theories and Practices of Weight Management 2</td>
</tr>
<tr>
<td>NUTR 650. Nutrition Education/Counseling 3,4</td>
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<td>NUTR 652. Nutrition Assessment 1,4</td>
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<tr>
<td>Elective (adviser approval required)</td>
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<td>Elective to be selected by all students in program (adviser approval required) 3</td>
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</tbody>
</table>

1 Fall only  
2 Spring only  
3 Summer only  
4 Registered dietitians may petition to waive taking NUTR 650 and/or NUTR 652 and select one or two additional elective courses as replacements.
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 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.

<table>
<thead>
<tr>
<th>Interdisciplinary Program in Nutrition and Physical Activity Concentration Degree Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Requirements</td>
<td></td>
</tr>
<tr>
<td>NUTR/KIN 555. Theories and Practices of Weight Management2</td>
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<tr>
<td>KIN 644. Metabolic and Cardiorepiratory Aspects of Exercise</td>
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<tr>
<td>KIN 645. Muscular, Hormonal and Environmental Aspects of Exercise1</td>
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<tr>
<td>KIN 650. Exercise Testing, Prescription and Evaluation2</td>
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</tr>
<tr>
<td>HTH/KIN 655. Research Techniques2</td>
<td>3</td>
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<tr>
<td>MATH 522. Statistics2</td>
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<tr>
<td>NUTR 545. Nutrition and Exercise2</td>
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<tr>
<td>NUTR 652. Nutrition Assessment 1</td>
<td>3</td>
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<tr>
<td>Choose one of the following:</td>
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<tr>
<td>NUTR 582. Nutrition and Metabolism1</td>
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<tr>
<td>NUTR 655. Integrated Nutrition1</td>
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Choose one of the following: | 6  |
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<th></th>
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</thead>
<tbody>
<tr>
<td>HTH/KIN 700. Thesis</td>
</tr>
<tr>
<td>NUTR 681, 682, 695. Directed Research in Dietetics I-II and Seminar and Research in Dietetics</td>
</tr>
</tbody>
</table>

1 Fall only  
2 Spring only

**Master of Business Administration: Health Services Administration track**

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](http://cob.jmu.edu/mba))
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. Health Behavior: Theory, Research and Practice. 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 695. Directed Research. 3 credits.**

This is for research designed to complete the Directed Research Option. The course must be taken twice. Prerequisite: Permission of Graduate Coordinator.

**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**

**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/HTH 655. Research Methods in Dietetics. 3 credits.**
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.

**Occupational Therapy**

Phone: (540) 568-2399 or (540) 568-8170

Web site: [http://www.healthsci.jmu.edu/occupationaltherapy/](http://www.healthsci.jmu.edu/occupationaltherapy/)

**Mr. Jeff Loveland, O.T.R., Graduate Coordinator**

**Admission Requirements**

The Masters of Occupational Therapy (MOT) is a professional master's degree designed for entry-level generalist preparation of the occupational therapist. The design of the program is a 3 + 2.5 year model with two routes of entry:
JMU undergraduate students can apply during their third year of undergraduate work. Undergraduate students must have completed all prerequisites and 84 hours of undergraduate credit in order to start the program after their third year. These students must apply to the College of Graduate and Professional Programs and the Health Sciences MOT graduate program during their senior year.

If accepted, an additional 1.5 years of coursework will be required.

Students possessing a Bachelor’s degree may apply to the College of Graduate and Professional Programs and the Health Sciences MOT graduate program as graduate students. These students will be required to complete 2.5 years of coursework.

**Application Deadlines**

One cohort of students is admitted each year. Classes begin in June.

For deadlines for application to the College of Graduate and Professional Programs, see “Admission to the College of Graduate and Professional Programs.” For deadlines for application to the OT Program see [www.healthsci.jmu.edu](http://www.healthsci.jmu.edu/)

Applications submitted by the due date are reviewed first and given earliest consideration for admission into the program. Applications received after the deadline will be considered as enrollment permits.

- Undergraduates must apply for admission to the MOT program during their junior year and the College of Graduate and Professional Programs during their senior year.
- Students possessing a Bachelor’s degree must apply to the College of Graduate and Professional Programs prior to their admission to the MOT program.

For application packets, call (540) 568-2399.

**Mission**

The mission of the Occupational Therapy Program is to provide a well-rounded educational experience to students that will prepare them to effectively practice in a variety of service areas within today’s health and human service arena. Each graduate will:

- Possess a thorough understanding of occupation
- Be able to articulate and demonstrate the theoretical and practical application of occupational therapy
- Be comfortable and competent working with individuals in a variety of practice settings
- Be committed to continuous professional growth and the evolution and validation of the profession as human needs change
- Be able to systematically locate and evaluate available evidence-based literature to formulate assessment and intervention decisions to guide professional practice

Faculty participating in the program will contribute through service and education to professional circles and the local community; and will maintain high standards of professional knowledge while offering quality education to students.
Occupational therapists work with individuals whose ability to participate in the occupations of life is disrupted or unable to develop due to injury, disease, developmental difficulties or environmental factors. Occupational therapy is a health and human service profession whose name is reflective of the time that it was formally founded (1917) when the term occupation collectively referred to activities people engage in throughout their day. Based on the centuries-old belief that there is health in doing, active client-centered participation is both the focus of the professional and its main avenue of intervention. Occupational therapists work in hospitals (inpatient and outpatient programs), rehabilitation centers, early intervention programs, schools, mental health programs, home health care agencies, industrial medicine/rehabilitation programs, skilled nursing facilities, private practices, correctional facilities, shelters, community-based programs or at colleges or universities as faculty. For employment characteristics for occupational therapists, a listing of where JMU OT graduates work, average salary by graduating class, graduate performance on the NBCOT Exam and employer satisfaction of JMU graduates see the OT Web site.

**Accreditation**

The Occupational Therapy Program is accredited by the American Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 4720 Montgomery Lane, Bethesda, MD 20824-1220. AOTA’s phone number is (301) 652-AOTA (Web site is [http://www.aota.org](http://www.aota.org)). Graduation from an ACOTE accredited program is a requirement for eligibility to take the National Board for Certification in Occupational Therapy (NBCOT) exam. NBCOT ([http://www.nbcot.org](http://www.nbcot.org)) can be contacted at 800 South Frederick Avenue, Suite 200, Gaithersburg, MD 20877-4150 or (301) 990-7979. Successful completion of this examination forms the basis for the regulation of practice. A prior felony conviction may affect a graduate’s ability to take the NBCOT certification examination and/or attain state licensure.

The licensing authority for occupational therapists in the Commonwealth of Virginia is the Department of Health Professions of the Virginia Board of Medicine, 6606 West Broad Street, 4th Floor, Richmond, VA 23230-1717. Telephone: (804) 662-9908. Refer to the AOTA Web site for licensing information for other states.

**Admission Requirements**

Admission is limited and competitive. Students applying to the program with a baccalaureate degree will enter the program as graduate students. Successful completion of 78 graduate credits will result in earning the MOT degree.

Students admitted as seniors will complete 38 undergraduate credits. After acceptance into the College of Graduate and Professional Programs and graduate level Occupational Therapy program, they will complete 44 graduate credits for the MOT degree. Admission into the Occupational Therapy program as an undergraduate does not ensure admission to
the College of Graduate and Professional Programs or the graduate level Occupational Therapy program.

**Admission Requirements for Undergraduates**

To be considered for admission to the MOT program, prospective students must:

- Be admitted to JMU as an undergraduate student majoring in Health Studies. NOTE: Refer to the JMU Undergraduate Catalog for specific course work to fulfill degree requirements.
- Submit Graduate Record Examination (GRE) scores in Verbal, Analytical, Quantitative and Writing. Undergraduate applicants should take the GRE in their junior year before applying to the MOT Program.
- Apply and be admitted to the College of Graduate and Professional Programs during the junior year.
- Complete at least 84 hours of undergraduate course work by the time of enrollment.
- Have a minimum cumulative grade point average of 2.8 or better and meet all prerequisite course requirements with a grade of “C” (2.0) in the following courses:
  - BIO 270. Human Physiology
  - BIO 290. Human Anatomy
  - GANTH 195. Cultural Anthropology
  - HTH 441. Rehabilitative Biomechanics or comparable physics course
  - MATH 220. Elementary Statistics
  - PSYC 160. Life Span Human Development
  - PSYC 250. Intro to Abnormal Psychology

NOTE: These are JMU courses and numbers. Students not attending JMU as undergraduates may request that courses with similar content be substituted for the specific courses listed. Transcripts and syllabi of the courses should be supplied for the review of content. The Admissions Committee of the Occupational Therapy Program will determine if the courses meet the prerequisite requirements.

- Submit documentation of a minimum forty hours of observation of occupational therapy services (form in application packet)
- Submit three reference forms: one from an employer or non-relative and one or more from an instructor (form in application packet)
Submit an Autobiographical Statement of 1000 words or fewer.
Meet all ISST requirements and requirements in computer competency as required by the university and stated in the General Education requirements in the JMU Undergraduate Catalog.
Provide evidence of at least one instructional experience in the arts or media (high school or community college course, private instruction, Community Arts certificate, etc.).

Admission as a Graduate Student

To be considered for admission to the MOT program, prospective students must:

- Submit Graduate Record Examination (GRE) scores in Verbal, Analytical, Quantitative and Writing.
- Be admitted to the College of Graduate and Professional Programs.
- Have a minimum cumulative grade point average of 2.8 or better and meet all prerequisite course requirements with a grade of “C” (2.0) in the following courses:
  NOTE: These are JMU courses and numbers. Students not attending JMU as undergraduates may request that courses with similar content be substituted for the specific courses listed. Transcripts and syllabi of the courses should be supplied for the review of content. The Admissions Committee of the Occupational Therapy Program will determine if the courses meet the prerequisite requirements.

- BIO 270. Human Physiology
- BIO 290. Human Anatomy
- GANTH 195. Cultural Anthropology
- GSOCL 240. Individual in Society or
- HTH 441. Rehabilitative Biomechanics or comparable physics course
- MATH 220. Elementary Statistics
- PSYC 160. Life Span Human Development
- PSYC 250. Intro to Abnormal Psychology

- Submit documentation of a minimum forty hours of observation of occupational therapy services (form in application packet)
- Submit three reference forms: one from an employer or non-relative and one or more from an instructor (form in application packet)
- Submit an Autobiographical Statement of 1000 words or fewer.
- Provide evidence of at least one instructional experience in the arts or media (high school or community college course, private instruction, Community Arts certificate, etc.)
Application Evaluation Criteria

Candidates are evaluated through review of their written application. The following characteristics, skills and accomplishments are assessed.

- Academic preparation (overall GPA, prerequisite GPA, GRE)
- Autobiographical Statement (Autobiography Rating Form completed independently by three faculty)
- Written communication skills (Autobiography Rating Form)
- Volunteer/Health and Human Services experience (Volunteer Form)
- References (Reference Form)
- Thoroughness and timeliness of application submission (Date and status of application material when received)

Curriculum

All of the following courses are required and must be taken in the sequence specified. Students must be enrolled full-time. Exceptions to this requirement are rare and are only granted by the program coordinator. Students must receive a grade of “B” or better in all courses at the 500-level or above. A grade of “C” or better must be received in all courses at the 400-level once admitted into the OT Program. NOTE: Level II Fieldwork must be completed within 24 months of completion of didactic course work.

<table>
<thead>
<tr>
<th>Occupational Therapy Degree Requirements</th>
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<tbody>
<tr>
<td><strong>Summer: Year One (12 weeks)</strong></td>
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<tr>
<td>HTH 438/OT 538. Administrative Functions for OTs</td>
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<tr>
<td>BIO 414/514. Functional Anatomy for Occupational Therapists</td>
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<td><strong>Fall: Year One</strong></td>
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<td>HTH 409/OT 510. Therapeutic Interaction</td>
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<tr>
<td>HTH 424/OT 520. Occupational Development through the Lifespan</td>
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<tr>
<td>HTH 431/OT 530. Human Occupational and the Foundations of the Profession</td>
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<tr>
<td>BIO 440/540. Functional Neuroscience</td>
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<tr>
<td>HTH 445/OT 540. The Occupational Therapy Process</td>
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<tr>
<td>HTH 491/OT 591. Occupational Therapy Tutorial Group I</td>
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<td><strong>Spring: Year One</strong></td>
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<tr>
<td>HTH 435/OT 555. Level I Fieldwork One</td>
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<tr>
<td>HTH 460/OT 560</td>
<td>Sensorimotor Foundations of Occupational Engagement</td>
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<tr>
<td>HTH 461/OT 570</td>
<td>Assistive Technology and Therapeutic Media</td>
</tr>
<tr>
<td>HTH 478/OT 580</td>
<td>Occupational Dysfunction: Cause and Impact</td>
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<tr>
<td>HTH 479/OT 590</td>
<td>Foundations of Research in Occupational Therapy</td>
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<tr>
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<tr>
<td>HTH 492/OT 592</td>
<td>Occupational Therapy Tutorial Group II</td>
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</table>

Students enrolled in the program at the undergraduate level would receive a Bachelor of Science degree in Health Sciences at this time. These students would have the option of earning a minor in Gerontology, Substance Abuse or Special Education (non-teaching) if appropriate coursework is completed.

### Fall: Year Two

<table>
<thead>
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<tbody>
<tr>
<td>OT 600</td>
<td>Occupational Therapy Intervention in Mental Health</td>
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<td>OT 610</td>
<td>Occupational Therapy Intervention in Pediatrics</td>
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</tr>
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<td>OT 620</td>
<td>School Based Practice</td>
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<td>OT 630</td>
<td>Evidence Based Practice</td>
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<td>OT 645</td>
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<tr>
<td>OT 640</td>
<td>Occupational Therapy Intervention with Adults</td>
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<td>OT 650</td>
<td>Occupational Therapy Intervention in Geriatrics</td>
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<td>OT 651</td>
<td>Community Based Practice</td>
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<td>OT 652</td>
<td>Innovative Practice in Human Services</td>
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<td>OT 655</td>
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<td>Policy Analysis and Systems of Service Provision</td>
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<td>OT 665</td>
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### Fall: Year Three

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\[http://www.jmu.edu/cgop/GradCatalog/05/Health.htm (21 of 37) [7/16/2008 1:48:00 PM]\]
Students would receive a Masters of Occupational Therapy degree at December commencement once they conclude all academic and clinical course work.

### 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 adviser 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.

### Course Offerings

#### Occupational Therapy

**OT510. Therapeutic Interaction. 3 credits.**

This course focuses on the therapeutic process, small group dynamics, professional interactions, cultural sensitivity, and client-practitioner relationships. Topics include professional socialization, communication skills, and exploration of self within the context of personal and professional attitudes, values, and beliefs. Prerequisites: Admission to the Occupational Therapy Program.

**OT520. Occupational Development Through the Lifespan. 3 credits.**

Occupational development from infancy to old age comprises the content. The specific interactions of the human and the environment in fostering physical, social, emotional, cognitive, moral and psychological growth are covered. The acquisition of values, roles, habits, temporal adaptations and interests during each stage of life are explored. Prerequisites: Admission to the Occupational Therapy Program.

**OT530. Human Occupation and the Foundations of the Profession. 3 credits.**

Occupation as a fundamental human behavior is explored. The conceptual basis of occupational engagement including time, tool use, environmental press, activity analysis, grading, approaches to change and other foundation concepts are linked to occupational science. How these coalesce into a professional focus and a profession complete the content. Prerequisites: Admission to the Occupational Therapy Program.
OT538. Administrative Functions for OTs. 3 credits.

This course provides an introduction to the management functions, tasks, roles and responsibilities as they are carried out in health and human service organizations. Discussion of emerging issues impacting health care practitioners is provided. Supervisory issues specific to the occupational therapist will be explored. Prerequisites: Admission to the Occupational Therapy program.

OT540. The Occupational Therapy Process. 3 credits.

The occupational therapy process is taught. Types, purposes and methods of assessment are taught as the initial and defining stop in the therapeutic process. Problem setting, client centered goal development, intervention and appropriate termination of services are covered. Documentation of the process is also included.

OT555. Level I Fieldwork One. 1 credit.

This course provides an opportunity for the student to gain clinical experience serving pediatric and adolescent clients in the areas of education, health or human services. This clinical experience is designed to enrich didactic course work through directed observation and participation in selected aspects of the occupational therapy process. Prerequisites: Admission to the Occupational Therapy Program and successful completion of all previous courses in the curriculum, or permission of the program coordinator.

OT560. Sensorimotor Foundations of Occupational Engagement. 2 credits.

The foundations of sensory processing and motor response allow the human to engage in purposeful and meaningful occupations. The important components of movement and behavior provide the underlying construct for much of occupational engagement. Normal and abnormal sensorimotor processing is presented with particular emphasis on how dysfunctions in these areas impact occupational engagement. Prerequisites: Admission to the Occupational Therapy Program and successful completion of all previous courses in the curriculum, or permission of the program coordinator.

OT570. Assistive Technology and Therapeutic Media. 3 credits.

The focus of this course is to provide an overview of therapeutic applications of craft media, assistive devices and assistive technology utilized in practice. Introduction to occupational activity analysis and compensatory strategies relative to performance areas, performance components and performance contexts. Prerequisites: Admission to the Occupational Therapy Program and successful completion of all previous courses in the curriculum, or permission of the program coordinator.

OT580. Occupational Dysfunction-Cause & Impact. 3 credits.


Reasons for occupational dysfunction in the areas of development, trauma, disease, degenerative and environmental conditions are examined in relation to their specific pathology and their effect on human occupational performance. Treatment approaches, assessment and intervention strategies specific to each condition will be developed.

Prerequisites: Admission to the Occupational Therapy Program and successful completion of all previous courses in the curriculum, or permission of the program coordinator.

**OT590. Foundations of Research in Occupational Therapy. 3 credits.**

The core research course introduces the student to the reasons, types and processes of research. Exposure to critical review of published research, specific emphasis on evidence based practice and the use of research in clinical decision-making is emphasized.

Prerequisites: Admission to the Occupational Therapy Program and successful completion of all previous courses in the curriculum or permission of the program coordinator.

**OT591. Occupational Therapy Tutorial Group I. 1 Credit**

Tutorial I is a small group case-based discussion seminar, facilitated by a clinical tutor who is an occupational therapist. Students research and discuss clinical cases related to content that is integrated from all courses that semester in the occupational studies concentration.

**OT592. Occupational Therapy Tutorial Group II. 1 Credit**

This tutorial course is a continuance of the small group case-based discussion seminar process facilitated by a clinical tutor who is an occupational therapist. Students research and discuss clinical cases related to content that is integrated from all courses that semester in the occupational studies concentration.

**OT600. Occupational Therapy Intervention in Mental Health. 3 credits**

Review of abnormal psychiatric conditions across the lifespan and their impact on individual occupational performance. Evaluation, and individual and group treatment will be applied. Signs, symptoms, and psychopharmacological treatment will be addressed.

Historical overview of occupational therapy in behavioral health service provision will be covered including current continuum of care. Prerequisites: Admission to the Occupational Therapy Program and successful completion of all previous courses in the curriculum, or permission of the program coordinator.

**OT610. Occupational Therapy Intervention in Pediatrics. 3 credits.**

Designed to provide an overview of occupational therapy in pediatrics, this course emphasizes the child and their family in context of environment and culture. The effect of disability on occupational development and performance frames the clinical reasoning used in decision making. Assessment, intervention planning and implementation, including intervention techniques, from a variety of theoretical perspective will be explored.
Prerequisites: Admission to the Occupational Therapy Program and successful completion of all previous courses in the curriculum, or permission of the program coordinator.

**OT 620. School Based Practice. 2 credits.**

An overview of occupational services provided under the Individuals with Disabilities Education Act frames the content of this course. Understanding the school as an institution with a mission and culture, working in teams and supporting educational objectives and achievement is stressed. The early intervention programs as designed under IDEA are included. Prerequisites: Admission to the Occupational Therapy Program and successful completion of all previous courses in the program or permission of the program coordinator.

**OT 630. Evidence Based Practice. 3 credits.**

Evidence based practice is considered to be the foundation and standard regarding clinical performance in the health and medical fields. This course introduces the student to the methodology of evidence-based research and its applicability to occupational therapy. The content of this course builds on knowledge gained in the introductory research course (OT 590). Prerequisites: Admission to the Occupational Therapy Program and successful completion of all previous courses in the curriculum or permission of the program coordinator.

**OT 640. Occupational Therapy Intervention with Adults. 3 credits.**

This course provides an in-depth examination of the occupational therapy process that occurs when deficits in occupational performance, performance components and performance contexts occur with adults. Special emphasis will be given to orthopedic and neurological conditions. Traditional and contemporary treatment approaches will be reviewed. Prerequisites: Admission to the Occupational Therapy Program and successful completion of all previous courses in the curriculum, or permission of the program coordinator.

**OT 645. Level I Fieldwork Two. 1 credit.**

This course provides an opportunity for the student to gain clinical experience serving clients with psychosocial conditions in the areas of education, health or human services. This clinical experience is designed to enrich didactic course work through directed observation and participation in selected aspects of the occupational therapy process. Prerequisites: Admission to the Occupational Therapy Program and successful completion of all previous courses in the curriculum, or permission of the program coordinator.

**OT 650. Occupational Therapy Intervention in Geriatrics. 2 credits.**

This course provides analysis of the role of the occupational therapist with the elderly client. Development and age related changes that occur in all body systems will occur as
pertinent theoretical approaches, assessments and interventions are examined. The
continuum of service programs available to the older client will be explored. Prerequisites:
Admission to the Occupational Therapy Program and successful completion of all previous
courses in the curriculum, or permission of the program coordinator.

**OT652. Innovative Practice in Human Services. 3 credits.**

This course will prepare the student to develop an innovative practice concept in
contemporary areas of human service. Identifying a business idea, developing a mission
statement/goals and objectives for the product/service to be delivered will lead to
performing a needs assessment through establishing a marketing and practice plan.
Prerequisites: Admission to the Occupational Therapy Program and successful completion
of all previous courses in the curriculum, or permission of the program coordinator.

**OT655. Level I Fieldwork Three. 1 credit.**

This course provides an opportunity for the students to gain clinical experience serving
clients with orthopedic or neurological conditions in the areas of education, health or
human services. This clinical experience is designed to enrich didactic course work through
directed observation in selected aspects of the occupational therapy process.
Prerequisites: Admission to the Occupational Therapy Program and successful completion
of all previous courses in the curriculum, or permission of the program coordinator.

**OT651. Community-Based Practice. 3 credits.**

Students conduct a needs assessment, explore community resources, consider alternative
funding sources, and develop an occupational therapy program to provide services for
individuals who are experiencing occupational dysfunction in various community settings.
This course exposes students to community-based models and provides interaction with
local agencies. Prerequisites: Admission to the Occupational Therapy Program and
successful completion of all previous courses in the curriculum, or permission of the program
coordinator.

**OT663. Policy Analysis and Systems of Service Provision. 3 credits.**

Federal, state, and local laws and regulations related to health and human services are
identified and their impact on occupational therapy practice is examined. Particular
emphasis is placed on access to services, systems of services and payment for services. The
role of advocacy in change is emphasized. Prerequisites: Admission to the Occupational
Therapy Program and successful completion of all previous courses in the curriculum or
permission of the program coordinator.

**OT665. Level II Fieldwork One. 6 credits.**

This supervised 12-week fieldwork external affiliation provides in-depth experience in
Academic Programs: Academic Units

delivering occupational therapy services on-site at a hospital, community agency, or human service setting. Students demonstrate an ability to evaluate, treat, document, and discharge clients. Professionalism, clinical reasoning skills, and communication with clients, significant others and professional colleagues are enhanced. Prerequisites: Admission to the Occupational Therapy Program and successful completion of all previous courses in the curriculum, or permission of the program coordinator.

**OT675. Level II Fieldwork Two. 6 credits.**

Students participate in a second 12-week in-depth supervised fieldwork affiliation in a different practice setting such as a hospital, community agency, or human service settings. Students demonstrate increased independence in evaluating, treating, documenting and discharging clients. Professionalism, clinical reasoning, and communication skills are further enhanced. Prerequisites: Admission to the Occupational Therapy Program and successful completion of all previous courses in the curriculum, or permission of the program coordinator.

**OT680. Independent Study in Occupational Therapy. 3 credits.**

This course provides an opportunity for the student to explore theoretical, clinical and evidence based practice concepts related to experience gained from both didactic and fieldwork education in greater breadth and depth. Exploration and dissemination of current health and human services professional literature will be emphasized as students examine the efficacy of traditional and contemporary practice approaches. Prerequisites: Admission to the Occupational Therapy Program and successful completion of all previous courses in the curriculum, or permission of the program coordinator.

**OT691. Occupational Therapy Tutorial III. 1 Credit**

This tutorial course is a continuance of the small group case-based discussion seminar process facilitated by a clinical tutor who is an occupational therapist. Students research and discuss clinical cases related to content that is integrated from all courses that semester in the occupational studies concentration.

**OT692. Occupational Therapy Tutorial IV. 1 Credit**

This tutorial course is a continuance of the small group case-based discussion seminar process facilitated by a clinical tutor who is an occupational therapist. Students research and discuss clinical cases related to content that is integrated from all courses that semester in the occupational studies concentration.

**Physician Assistant Studies**

Phone: (540) 568-2395
Mr. James Hammond, M.A., P.A.-C, Graduate Coordinator

Admission Requirements

To be considered for admission to the Master in Physician Assistant Studies a prospective student must

- Apply to and be accepted for admission to the Graduate College. See “Admission to the College of Graduate and Professional Programs.”
- Submit scores from the Graduate Record Examination
- Have earned a bachelor degree from a regionally accredited college or university.
- Successfully complete the following specific undergraduate prerequisite course work at the “C,” 2.0 level or better prior to beginning the PA curriculum.

Within the last seven years:

- Human Physiology – one semester
- Human Anatomy – one semester
- Biochemistry – one semester
- Genetics – one semester

Within any number of years:

- Medical Terminology

A minimum of 1,000 hours of direct, patient-contact, healthcare experience is required.

These hours may come from one experience or a combination of experiences and may be voluntary or paid work. Examples of healthcare professions that require direct, patient-contact include nurse, EMT or paramedic, corpsman, patient care technician, nurse’s aide, surgical assistant, clinic/medical assistant, respiratory technologist, radiology technologist, medical technologist, mental health worker, and clinical research assistant. Other professions and experiences not listed may also qualify as direct, patient care.

Healthcare related professions that do not include hands-on patient contact are not considered toward meeting the healthcare experience requirement. These typically include transporter, CPR or ACLS instructor, lifeguard, non-clinical research assistant, candy striper, unit clerk, and others. Although desirable for other reasons, PA shadowing and student/intern experience do not count toward the required 1,000 hours of patient care experience. Contact the PA program, if you have any questions regarding your healthcare experience.

- Submit an application to the JMU PA program through the Centralized Application
Academic Programs: Academic Units

Service for Physician Assistants (CASPA). Information and application can be obtained online at http://www.caspaonline.org.

Application Deadlines

One cadre of students is admitted each year. Classes begin in May.

- For deadlines for application to the College of Graduate and Professional Programs, see “Admission to the College of Graduate and Professional Programs.”
- For deadlines for application to the PA Program see either http://www.jmu.edu/healthsci/paweb or http://www.caspaonline.org. Applications to the program are due the preceding fall. Specific dates each year are available on the above-mentioned Web sites or by contacting the PA Program.

Application Evaluation Criteria

Candidates are evaluated through review of their written application. Superior candidates are invited to on-campus interviews. The following characteristics, skills and accomplishments are assessed.

- Academic preparation (Overall GPA, Science GPA, Non-Science GPA, prerequisite and recent course work)
- Communication skills (Written application, personal essay, speaking and listening skills at interview)
- Career Plans / Concept of the PA Profession (Written application and interview)
- Health Care Experience (Written application and interview)
- Professionalism (Interview)
- Service to Society (Written application and interview)

Mission

The graduate programs in Health Sciences are committed to preparing students to become evidence-based critical thinkers in the health sciences. Specifically, these programs build upon the undergraduate health sciences programs by providing a more detailed knowledge base that is fortified by self-directed learning experiences and the development of practical, clinical, and/or research skills.

The Master of Physician Assistant Studies program prepares students for clinical positions as primary care physician assistants (PA). The course of study requires 24 consecutive months of work for students who have met the prerequisite requirements and been admitted to the program. Admission is limited and competitive. Students must be admitted to the College of Graduate and Professional Programs and to the PA master degree program via separate application processes.

Physician Assistants (PAs) are highly skilled medical professionals who have for over 35 years functioned as members of a team delivering quality healthcare. Working with physicians, PAs provide medical services traditionally performed by physicians. These services include
taking medical histories, performing physical examinations, ordering and interpreting tests, diagnosing and treating medical conditions, educating and counseling patients, performing minor medical/surgical procedures, and, in most states prescribing medications. The PA’s duties are determined by physician supervision as defined by law.

PAs practice in the same settings as physicians, i.e., outpatient facilities, private and public clinics, managed care and other systems, and in rural and urban areas. The focus of the JMU concentration is primary care medicine.

**Accreditation**

The PA program is accredited by the Accreditation Review Commission on Education for the Physician Assistant, Inc. Accreditation provides graduates eligibility to take the Physician Assistant National Certifying Examination (PANCE). Successful completion of the PANCE is required for graduates to be licensed to practice.

**Curriculum**

All courses are required and must be taken in sequence. Students must be full-time and must take the curriculum in a consecutive twenty-four month period. Exceptions are rare and are granted only by the program director.

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<thead>
<tr>
<th>Physician Assistant Degree Requirements</th>
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<tr>
<td><strong>Summer Session Year 1 (twelve weeks)</strong></td>
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<tr>
<td>BIO 513. Human Gross Anatomy with Clinical Applications</td>
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<td>BIO 516. Pathophysiology I</td>
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<td>PA 510. Physical Diagnosis</td>
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<td>PA 540. The Physician Assistant Profession</td>
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<tr>
<td>BIO 517. Pathophysiology II</td>
<td>2</td>
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<tr>
<td>PA 630. Clinical Laboratory Medicine I</td>
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<td>PA 511. Physical Diagnosis II</td>
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<td>PA 532. Pharmacology for PAs I</td>
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<td>PA 520. Clinical Medicine I</td>
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<td>PA 551. Managing Medical Information I: Clinical Biostatistics</td>
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<td>PA 652. Managing Medical Information II: Clinical Problem Solving</td>
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<td>PA 653</td>
<td>Managing Medical Information III: Research Design and Implementation</td>
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<td>Health Care Environment</td>
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<td>PA 625</td>
<td>Health Promotion &amp; Disease Prevention</td>
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<td>Values in Primary Care</td>
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<td>Managing Medical Information IV: Senior Project</td>
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**Course Offerings**

Physician Assistant
PA 510. Physical Diagnosis I. 3 credits.

This is the first in a two-course series that presents fundamental concepts in the physician assistant/patient relationship, skills needed to conduct complete medical histories and physical examinations of patients of all ages, and methodologies commonly used to communicate medical information. Prerequisites: Admission to Physician Assistant Program, or permission of Program Director.

PA 511. Physical Diagnosis II. 2 credits

This is the second in a two-course series that presents fundamental concepts in the physician assistant/patient relationship, skills needed to conduct complete medical histories and physical examinations of patients of all ages, and methodologies commonly used to communicate medical information. Prerequisites: Admission to the Physician Assistant Program and successful completion of all previous courses in the curriculum, or permission of the Program Director.

PA 520. Clinical Medicine I. 5 credits.

This is the first of a two-course series that examines the etiology, presentation, diagnosis and treatment of diseases and disorders common to adults seen in primary care physician assistant practice. This series serves as preparation for the clinical rotations in internal medicine, family medicine, emergency medicine and surgery. Prerequisites: Admission to the Physician Assistant Program and successful completion of all previous courses in the curriculum, or permission of the Program Director.

PA 532. Pharmacology for Physician Assistants I. 3 credits.

This is the first of two courses that provide the base of information necessary for clinical prescribing of medications. It includes pharmacokinetics, pharmacodynamics and pharmacotherapeutics. Within each class of therapeutic drugs, the course examines drug actions, interactions, reactions, and contraindications. The course also includes principles of prescribing and patient compliance. Prerequisites: Admission to the Physician Assistant Program and successful completion of all previous courses in the curriculum, or permission of the Program Director.

PA 540. The Physician Assistant Profession. 1 credit

This course explores the principles of the PA profession, its history and place in the spectrum of health care professions. Economic, legal and societal factors influencing the profession are also discussed. Prerequisites: Admission to Physician Assistant Program, or permission of Program Director.

PA 551. Managing Medical Information I: Clinical Biostatistics. 3 credits.
This is the first in a four-course series designed to provide the physician assistant student with skills to understand research design, analyze research information and apply it to clinical practice. Emphasis in this course will be placed on basic biostatistical concepts, literature searches and analysis. Prerequisites: Admission to the Physician Assistant Program and successful completion of all previous courses in the curriculum, or permission of the Program Director.

**PA 621. Clinical Medicine II. 5 credits.**

This is the second of a two-course series that examines the etiology, presentation, diagnosis and treatment of diseases and disorders common to adults seen in primary care physician assistant practice. This course focuses on the primary aspects of diseases and disorders seen in the fields of emergency medicine, dermatology and surgery. Prerequisites: Admission to the Physician Assistant Program and successful completion of all previous courses in the curriculum, or permission of the Program Director.

**PA 622. Women’s Medicine. 2 credits.**

This course provides an introductory knowledge base in women’s medicine. Through a series of presentations it prepares students for obstetric and gynecologic conditions encountered during clinical rotations. Prerequisites: Admission to the Physician Assistant Program and successful completion of all previous courses in the curriculum, or permission of the Program Director.

**PA 623. Pediatric Medicine. 2 credits.**

This course provides an introductory knowledge base in pediatric medicine. Through a series of presentations it prepares students for pediatric medical conditions encountered during clinical rotations. Prerequisites: Admission to the Physician Assistant Program and successful completion of all previous courses in the curriculum, or permission of the Program Director.

**PA 624. Behavioral Medicine. 2 credits.**

This course provides an introductory knowledge base in behavioral medicine. Through a series of presentations it prepares students for behavioral medicine conditions encountered during clinical rotations. Prerequisites: Admission to the Physician Assistant Program and successful completion of all previous courses in the curriculum, or permission of the Program Director.

**PA 625. Health Promotion and Disease Prevention. 1 credit.**

The course presents strategies that physician assistants employ in promoting health and well being among the people they serve. It also examines public health strategies focused on early discovery of disease, prevention of disease, and stopping the spread of disease.
Academic Programs: Academic Units

Prerequisites: Admission to the Physician Assistant Program and successful completion of all previous courses in the curriculum, or permission of the Program Director.

**PA 630. Clinical Laboratory Medicine I. 2 credits.**

This is the first of a two-course series that presents the clinical laboratory tests used to detect and monitor common diseases and disorders. It focuses on selecting and interpreting the appropriate tests for each body system as well as performing selected tests. Prerequisites: Admission to the Physician Assistant Program and successful completion of all previous courses in the curriculum, or permission of the Program Director.

**PA 631. Clinical Laboratory Medicine II. 2 credits.**

This is the second course in a two-course series that presents the clinical laboratory tests used to detect and monitor common diseases and disorders. It focuses on selecting and interpreting the appropriate tests for each body system as well as performing selected tests. Prerequisites: Admission to the Physician Assistant Program and successful completion of all previous courses in the curriculum, or permission of the Program Director.

**PA 633. Pharmacology for Physician Assistants II. 3 credits.**

This is the second of two courses that provide the base of information necessary for clinical prescribing of medications. It includes pharmacokinetics, pharmacodynamics and pharmacotherapeutics. Within each class of therapeutic drugs, the course examines drug actions, interactions, reactions, and contraindications. The course also includes principles of prescribing and patient compliance. Prerequisites: Admission to the Physician Assistant Program and successful completion of all previous courses in the curriculum, or permission of the Program Director.

**PA 642. Transition to Physician Assistant Practice. 1 credit.**

This course examines issues related to the shift from the role of a PA student to that of a practicing PA. Topics include medical liability and risk management, business aspects of clinical practice, credentialing processes, and career development. Prerequisites: Admission to the Physician Assistant Program and successful completion of all previous courses in the curriculum, or permission of the Program Director.

**PA 643. Values in Primary Care. 3 credits.**

This course provides an overview of professional ethics as they apply to primary care practice for physician assistants. The focus is on major principles and methodologies that guide clinicians in ethical decision-making as they encounter situations common to primary care practice. Prerequisites: Admission to the Physician Assistant Program and successful completion of all previous courses in the curriculum, or permission of the Program Director.
PA 652. Managing Medical Information II: Clinical Problem Solving. 3 credits.

This is the second in a four-course series designed to provide the physician assistant student with skills to understand research design, analyze research information and apply it to clinical practice. The emphasis in this course is placed on the use of evidence-based medicine in clinical decision-making. Prerequisites: Admission to the Physician Assistant Program and successful completion of all previous courses in the curriculum, or permission of the Program Director.

PA 653. Managing Medical Information III: Research Design and Implementation. 1 credit.

This is the third in a four-course series designed to provide the physician assistant student with skills to understand research design, analyze research information and apply it to clinical practice. In this course students design an individual senior project that will be implemented and presented in PA 654. Prerequisites: Admission to the Physician Assistant Program and successful completion of all previous courses in the curriculum, or permission of the Program Director.

PA 654. Managing Medical Information IV: Senior Project. 2 credits.

This is the fourth in a four-course series designed to provide the physician assistant student with skills to understand research design, analyze research information and apply it to clinical practice. Utilizing a study question or research protocol generated in PA 653 students will collect and synthesize information culminating in a class presentation and paper suitable for publication. Prerequisites: Admission to the Physician Assistant Program and successful completion of all previous courses in the curriculum, or permission of the Program Director.

PA 670. Clinical Rotation X. 2 credits.

This is the tenth in a ten-course series of clinical rotations. During the series students are assigned to two rotations in family medicine, two in internal medicine, and one each in obstetrics/gynecology, pediatrics, behavioral medicine, surgery, emergency medicine and an elective. Students gain experience working with experienced, supervising clinicians. Prerequisites: Admission to the Physician Assistant Program and successful completion of all previous courses in the curriculum, or permission of the Program Director.

PA 671. Clinical Rotation I. 2 credits.

This is the first in a ten-course series of clinical rotations. During the series students are assigned to two rotations in family medicine, two in internal medicine, and one each in obstetrics/gynecology, pediatrics, behavioral medicine, surgery, emergency medicine and an elective. Students gain experience working with experienced, supervising clinicians. Prerequisites: Admission to the Physician Assistant Program and successful completion of all previous courses in the curriculum, or permission of the Program Director.
PA 672. Clinical Rotation II. 2 credits.

This is the second in a ten-course series that comprises the clinical rotation year. During the series students are assigned to clinical rotations in family medicine, internal medicine, obstetrics and gynecology, pediatrics, behavioral medicine, surgery, emergency medicine or an elective rotation. Students gain experience in clinical practice working with experienced, supervising clinicians. Prerequisites: Admission to the Physician Assistant Program and successful completion of all previous courses in the curriculum, or permission of the Program Director.

PA 673. Clinical Rotation III. 2 credits.

This is the third in a ten-course series of clinical rotations. During the series students are assigned to two rotations in family medicine, two in internal medicine, and one each in obstetrics/gynecology, pediatrics, behavioral medicine, surgery, emergency medicine and an elective. Students gain experience working with experienced, supervising clinicians. Prerequisites: Admission to the Physician Assistant Program and successful completion of all previous courses in the curriculum, or permission of the Program Director.

PA 674. Clinical Rotation IV. 2 credits.

This is the fourth in a ten-course series of clinical rotations. During the series students are assigned to two rotations in family medicine, two in internal medicine, and one each in obstetrics/gynecology, pediatrics, behavioral medicine, surgery, emergency medicine and an elective. Students gain experience working with experienced, supervising clinicians. Prerequisites: Admission to the Physician Assistant Program and successful completion of all previous courses in the curriculum, or permission of the Program Director.

PA 675. Clinical Rotation V. 2 credits.

This is the fifth in a ten-course series of clinical rotations. During the series students are assigned to two rotations in family medicine, two in internal medicine, and one each in obstetrics/gynecology, pediatrics, behavioral medicine, surgery, emergency medicine and an elective. Students gain experience working with experienced, supervising clinicians. Prerequisites: Admission to the Physician Assistant Program and successful completion of all previous courses in the curriculum, or permission of the Program Director.

PA 676. Clinical Rotation VI. 2 credits.

This is the sixth in a ten-course series of clinical rotations. During the series students are assigned to two rotations in family medicine, two in internal medicine, and one each in obstetrics/gynecology, pediatrics, behavioral medicine, surgery, emergency medicine and an elective. Students gain experience working with experienced, supervising clinicians. Prerequisites: Admission to the Physician Assistant Program and successful completion of all previous courses in the curriculum, or permission of the Program Director.
PA 677. Clinical Rotation VII. 2 credits.

This is the seventh in a ten-course series of clinical rotations. During the series students are assigned to two rotations in family medicine, two in internal medicine, and one each in obstetrics/gynecology, pediatrics, behavioral medicine, surgery, emergency medicine and an elective. Students gain experience working with experienced, supervising clinicians. Prerequisites: Admission to the Physician Assistant Program and successful completion of all previous courses in the curriculum, or permission of the Program Director.

PA 678. Clinical Rotation VIII. 2 credits.

This is the eighth in a ten-course series of clinical rotations. During the series students are assigned to two rotations in family medicine, two in internal medicine, and one each in obstetrics/gynecology, pediatrics, behavioral medicine, surgery, emergency medicine and an elective. Students gain experience working with experienced, supervising clinicians. Prerequisites: Admission to the Physician Assistant Program and successful completion of all previous courses in the curriculum, or permission of the Program Director.

PA 679. Clinical Rotation IX. 2 credits.

This is the ninth in a ten-course series of clinical rotations. During the series students are assigned to two rotations in family medicine, two in internal medicine, and one each in obstetrics/gynecology, pediatrics, behavioral medicine, surgery, emergency medicine and an elective. Students gain experience working with experienced, supervising clinicians. Prerequisites: Admission to the Physician Assistant Program and successful completion of all previous courses in the curriculum, or permission of the Program Director.
History

Phone: (540) 568-6132
Web site: http://www.jmu.edu/history

Dr. Michael J. Galgano, Department Head
Dr. Jacqueline B. Walker, Graduate Coordinator

Professors

Associate Professors
P. Dillard, K. Hardwick, L. King, G. Lanier, R. Meixsel, S. Reich, M. Seth

Assistant Professors
K. Borg, S. Hanfi, K. McCleary

Admission

In addition to the College of Graduate and Professional Programs qualifications for admissions, potential candidates must meet the requirements of the History department.

Admission requirements include completion of at least 24 undergraduate credit hours in history, or their equivalent, with approximately a “B” average or higher, and submission of satisfactory scores on the Graduate Record Examination General Test (GRE).

All applicants must also submit:

• two letters of recommendation, one of which is from a professor in the history major
• a brief essay (approximately 500 words) identifying your area of intended specialization and long-range career aspirations

Prerequisites for enrolling in graduate courses in history are GHIST 225, U.S. History, or equivalent, for courses in U.S.; and General Education history, or equivalent, for courses in European, African or Asian history.

Students seeking admission to the Master of Arts with teaching licensure must contact the School of Education.

The Department of History offers the Master of Arts degree with a major in history.

Mission

The Graduate Program in History at James Madison University offers concentrations in European, American, or Local/Regional/Public History. It permits students to deepen their understanding, acquire knowledge, and develop critical skills necessary for advanced research and writing in history. Through a blend of courses and internships, the program enhances levels of professional competence that demand mastery of the techniques of research, critical thinking, and careful oral and written communication. Graduates of the program are able to demonstrate an ability to understand and perform scholarly research with cross-disciplinary perspectives. We see this as essential since it provides important skills designed to meet the changing needs of our students in society. To ensure that our mission is kept in focus, we require graduates to demonstrate an advanced knowledge in their specific areas of 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 James Madison Graduate Program in History is committed to serving the needs of the Commonwealth of Virginia and the region. The Department of History’s Graduate Program encourages students to develop strengths in critical and creative thinking, communication, and applied skills. A balanced combination of theoretical and practical studies prepares 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.

The Graduate Program in History serves multiple audiences. Since historians today practice their discipline in a variety of careers, we have expanded the more traditional tracks in American and European to include a concentration in Local/Regional/Public History. The concentration exposes students to the broad range of skills and issues associated with public history while providing them with a solid advanced background in history. Students also augment their academic training through internships in a range of public history settings including museums, archives, government agencies, libraries, historic preservation organizations, businesses, contract history firms, cultural resource management firms, and historic sites.
The Department of History Graduate Program actively supports all university and college goals and objectives.

The program offers an opportunity for concentration in three fields of history.

- European history
- United States history
- Local/Regional/Public history

Minimum departmental requirements for the Master of Arts degree with a major in history are as follows.

- Thirty graduate credit hours in history.
- Thesis Option: Students must complete a thesis for 3 credit hours.
- Non-Thesis Option: Students must complete 30 credit hours with at least 6 credit hours of course work outside the field of concentration (3 credit hours must be in a non-western area).
- 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 a comprehensive examination in one of the three fields of concentration.
- At least 6 credit hours of course work outside the field of concentration of which 3 credit hours must be in a non-western area.

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 GHIST 225, U.S. History, or equivalent, for courses in U.S.; and General Education history, or equivalent, for courses in European, African or Asian history.

Program Guide

All Master of Arts students are required to complete the following courses.

First Year, Fall Semester

- HIST 671. Seminar in Historical Research Methods.
- HIST 672. Historiography

First Year, Spring Semester

- HIST 673. Graduate Research and Writing Seminar.

In addition to the semester-specific courses, students must complete one of the Non-
Western history courses (Africa, Asia or the Middle East).

**Course Offerings**

**History**

**HIST600. 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 the course will change with each offering. This course may be repeated when content is different. See e-campus for topic and professor.

**HIST601. Workshop in History. 1-3 credits.**

Intensive study of topics of current interest and demand. Primarily designed for history and social studies teachers. Topic and professor offering the course will change with each offering. This course may be repeated when content is different. See e-campus for topic and professor.

**HIST602. Workshop in Colonial American Life. 3 credits.**

This workshop is a study of life in colonial Virginia. Through the use of primary and secondary sources, the students research and aspect of Virginia culture and society. A week of the course is in Williamsburg, Virginia. Graduate students are expected to lead research groups and demonstrate a knowledge of secondary literature of the period.

**HIST603. Workshop in Civil War Virginia. 3 credits.**

This workshop examines the impact of the Civil War upon Virginia and her citizens. It explores the secession crisis, tactical and technological developments, and the evolution into “hard war.” A four-day battlefield tour will reinforce ideas discussed in the classroom. Students must demonstrate knowledge of the historiography and key primary sources.

**HIST605. 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 with each offering. This course may be repeated when content is different. See e-campus for topic and professor.

**HIST610. 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 with each offering. This course may be repeated when content is different. See e-campus for topic and professor.

**HIST 611. Colonial America. 3 credits.**

An interpretative survey of England’s mainland colonies from 1558-1776, with special attention to the evolution of the first British empire, historiography and important primary sources.

**HIST 613. The Anglo-American Constitutional Tradition. 3 credits.**

Surveys Anglo-American political and constitutional traditions. Emphasizes the evolution of 17th and 18th century British constitutionalism, its transferal to the British North American colonies, and the development of the first national and state constitutions in the United States. Emphasis on historiography and study from primary sources.

**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 with each offering. This course may be repeated when content is different. See e-campus for topic and professor.

**HIST 620. 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. Particular emphasis is placed upon historiography and analysis of primary sources as reflected through class discussion, oral presentations and writing assignments.

**HIST 622. U.S. History, 1789-1848. 3 credits.**

An interpretative study of the political, economic, social, intellectual and cultural history of the United States from the ratification of the Constitution through the Mexican-American War. Particular emphasis placed upon historiography and analysis of primary sources as reflected through class discussion, oral presentations and writing assignments.

**HIST 625. 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. Students must demonstrate command of the historiography and key primary sources.

**HIST 628. American Workers in the Industrial Age, 1877-1948. 3 credits.**

This course undertakes a critical examination of the impact of industrialization, race and gender, consumerism, the New Deal, and two world wars on the lives of American workers and their unions. Students will learn the major historiographical problems in American labor history and develop a mastery of the secondary literature.

**HIST 630. 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. Students will address historiography and examine primary sources.

**HIST 631. Reform, World War and Prosperity. 3 credits.**

An interpretative study of U.S. history from the rise of Theodore Roosevelt through the 1920s, with a focus on the progressive reform movement and the problems and issues generated by the Nation's emergence as a world power and an industrial urban society. Emphasis is placed on command of historiography and analysis of primary source material.

**HIST 632. Depression, War and Cold War: U.S. History, 1929-1961. 3 credits.**

An interpretive study of U.S. history from the onset of the Great Depression in 1929, through the inauguration of John F. Kennedy in 1961. The analysis of historical texts, historiography of major figures and seminal events, and interpretation of major debates and historiographical trends will be emphasizing in this seminar.

**HIST 633. Reform, Upheaval and Reaction. 3 credits.**

An interpretive study of U.S. history from the inauguration of John F. Kennedy in 1961 through the present. The analysis of historical texts, historiography of major figures and seminal events, and interpretation of major debates and historiographical trends will be emphasized in this seminar.

**HIST 637. Practicum: Selected Topics in Local and Regional History. 3 credits.**

Selected historical topics relating to the Shenandoah Valley and surrounding region are studied in depth. Students will undertake primary research and collaborate on final project. Topic and professor offering the course will change with each offering. This course may be repeated when content is different. See e-campus for topic and professor.
HIST 640. Graduate 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 650. 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 with each offering. This course may be repeated when content is different. See e-campus for topic and professor.

HIST 653. Patterns of World History. 3 credits.
This course provides an introduction to the historiography and research methods of world history. Emphasis is on integrating local and regional studies into a larger framework of world/global history utilizing the themes and methodological approaches that have been developed by the major contributors to this subfield of history.

HIST 655. Global Political and Social Thought to Early Modern Times. 3 credits.
Seminar in examining and analyzing political and social theory from different cultures though the eighteenth century with emphasis on historiographical interpretation.

HIST 656. The Global Economy and Nationalism. 3 credits.
The course examines the growth of the global economy since the 14th century. Concentrating on world systems/dependency theory approaches, it investigates the emergence of capitalism, its relationship to modern nationalism, and the role that the concept of development has played in the contemporary organization of nation-states.

HIST 660. Modern Japan. 3 credits.
A study of Japanese history from around the mid-19th century to the present. Major topics include the Tokugawa Shogunate, the Meiji Restoration, the rise of militarism, the Pacific War, the occupation of Japan, and the new Japan. In depth analysis of the above topics through historiographical approach. Additional assignments.

HIST 661. Advanced Seminar in Marxist-Leninist Theory in Modern Global History. 3 credits.
Advanced examination and analysis of Marxist-Leninist theory and its impact; analytical study of the main Marxist texts and historiography.
HIST 662. 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 663. Tudor-Stuart England. 3 credits.

A study of the economic, intellectual, political and religious development of the English people from 1485 to 1714, with particular focus on the constitutional struggles of the period. The analysis of historical texts, historiography of major figures and events, and interpretation of major debates and historiographical trends will be emphasized.

HIST 664. 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. Students must demonstrate command of the historiography.

HIST 666. The Family, 1400-1800. 3 credits.

Detailed analysis of the bibliography, methods, substance and interpretations of family history in Europe and America. Emphasis will be on sources, structure, patterns of change and continuity and stages of family life to the Industrial Revolution.

HIST 670. Modern Africa. 3 credits.

Africa in the 20th century, with emphasis on Senegal, Ivory Coast, Ghana, and Zaire. Special attention is given to the legacy of the slave trade and the effects of colonization on independent Africa. Prerequisite: HIST 395. Instructor’s permission required to waive HIST 395 for non-history majors.

HIST 671. Seminar in Historical Research Methods. 3 credits.

Systematic presentation of the theories and approaches to historical research, including detailed analysis of historiography past and present. Required of all first year graduate students.

HIST 672. Historiography. 3 credits.

An intensive reading colloquium focused on selected historiographical issues, topics, concepts, methodologies and interpretations of European history from the Renaissance to
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the end of the 20th century. Readings in American titles will cover issues and topics from the Colonial period to the end of the 20th century. Issues and readings will change with each offering. Required of all first year graduate students.

**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 675. Soviet Russia. 3 credits.**

The seminar covers the period from the Russian Revolution in 1917 to the present. Topics include: pre-revolutionary Russia, the Revolutions of 1917, Civil War, the 1920s Stalinism, World War II, the Cold War, the disintegration, the current situation in the former Soviet states, and the historiographical literature.

**HIST 677. 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. Students must demonstrate command of the historiographical sources.

**HIST 678. Europe since 1914. 3 credits.**

An advanced study of the lands between Germany and Russia, from the Baltic to the Balkans. Emphasis is on the Hapsburg Monarchy 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 680. Modern China. 3 credits.**

An in-depth study of Chinese history since 1840, with particular emphasis on China’s response to the West, the demise of imperial China, abortive experiments in republicanism, the origin and evolution of Chinese Communism under Mao and after Mao’s death. The historiography of seminal figures and events will be emphasized.

**HIST 681. 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. Students must demonstrate command of the historiographical sources.
HIST 683. Baroque and Revolutionary Europe, 1648-1815. 3 credits.
This course examines the Old Regime, its institutions, the causes of popular revolts, the Enlightenment, the beginnings of industrialism, and the impact of the French Revolution upon Europe. Analysis of texts, the historiography of major figures and seminal events, and the interpretation of major debates and historiographical trends will be emphasized.

HIST 684. Nineteenth-Century European Civilization, 1815-1914. 3 credits.
An interpretive study of European history (and the historiography devoted to the period) 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 685. 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 686. Europe Since 1914. 3 credits.
An interpretive study of European history (and the major interpreters of that history) from World War I to the Cold War, with special emphasis on the revolutions of 1917-1919, the rise of totalitarianism, the origins of the Second World War, the Cold War and its aftermath, and the continuing crisis of values.

HIST 687. World War II. 3 credits.
This course examines World War II in Europe and in Asia. The major military campaigns are discussed, as are collaboration, resistance and the War Crimes trials. Analysis of texts, the historiography of major figures and seminal events, and the interpretation of major debates and historiographical trends will be emphasized.

HIST 690. Special Topics in History. 3 credits.
Selected topics are studied in depth. Topic and professor offering the course will change with each offering. This course may be repeated when content is different. See e-campus for topic and professor. Prerequisite: Permission of department head.

HIST 691. Editing Historical Documents. 3 credits.
A seminar in the techniques of analyzing manuscript collections in order to create an
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Edition of historical documents. Both the theory and methodology of documentary editing will be emphasized, including collection, selection, transcription, annotation, proofing, illustration, indexing, and publication. Software tools and issues will be considered.

**HIST692. American Material Culture. 3 credits.**

Focused readings on material culture studies. Readings explore approaches, theories, and methods of various disciplines that utilize material culture as evidence. Emphasis is on persistent themes in material culture studies including regional variation and cultural transfer, identity formation and class issues, consumerism, and ethnicity and acculturation.

**HIST693. Historic Preservation. 3 credits.**

An introduction to the philosophy and technique of historic preservation. Course 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. Students undertake leadership assignments for architectural field assessments and National Register nominations.

**HIST694. 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. Students undertake a focused research project as well as leadership assignments for class projects.

**HIST696. Introduction to Public History. 3 credits.**

An introduction to the varied and interdisciplinary “field” of public history—such as community/local history, historic preservation, archives, historical archaeology, museum studies, business and policy history, documentary editing and publishing, and documentary films—through readings, class discussions, occasional guest speakers, occasional field trips, and an extended public history research project.

**HIST697. Genealogical Research and Family History. 3 credits.**

A seminar on the theory and methodology of genealogical research, including the critical evaluation of sources, incisive documentation, on-line resources, and the critical analysis of research findings. The course will require extensive utilization of local and state repositories and engagement with local research topics as well as with personal data. Personal genealogical information should be collected and secured at home before the state of the semesters.

**HIST698. 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. 3 credits.**

This course is graded on a satisfactory/unsatisfactory (S/U) basis.
Integrated Science and Technology

Phone: (540) 568-2796
E-mail: gabriebi@jmu.edu
Web site: http://www.isat.jmu.edu/grad/grad_program.htm

Dr. Robert G. Kander, Department Head
Dr. Barbra Gabriel, Graduate Coordinator

Professors

Associate Professors

Assistant Professors
C. Brodrick, B. Kreutzer

Instructor
W. Cook

Admission
The program is targeted for a broad audience. The admission process will seek a diverse student body with grounding in basic science and experience in business, industry,
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An entrance expectation is that the applicant will have completed a minimum of 15 semester credit hours in the natural sciences and mathematics at the undergraduate level. Hence, admission to the program may be granted to students with a variety of undergraduate majors in areas such as the physical sciences, computer science, selected areas of education, engineering, operations research, and information and decision sciences. Admission decisions will be collectively based on the following considerations.

- Graduation from a regionally accredited college or university
- Undergraduate grade point average
- Test scores from Graduate Record Exam (GRE), Graduate Management Admissions Test (GMAT), Medical College Admission Test (MCAT), or Miller Analogy Test (MAT).
- Official transcripts from all colleges or universities attended
- Industrial, business, government, or educational experience as indicated by current vita

Applicants are requested to submit a cover letter to the Graduate Coordinator as a supplement to application. Letters of recommendation are strongly encouraged. Correspondence between the applicant and the ISAT Graduate Committee is strongly encouraged.

Mission

The mission of the Integrated Science and Technology Masters Program is to provide diverse and experienced professionals with an educational experience that facilitates in-depth knowledge and skills across a variety of integrated scientific and technological disciplines utilizing a systems approach.

Major components of the program are:

- The curriculum and teaching methods are in constant touch with the realities of the world of work.
- The curriculum is aimed at developing a graduate with strong collaborative and communicative skills.
- The curriculum develops skills in information technology and knowledge management that are applicable to a broad range of professional careers.
- The curriculum is flexible and amenable to change in order to remain current with the nation's developing critical technologies and with the imperatives of a changing national economy.
- The graduate will be educated to think in terms of solving technologically based problems from a systems perspective, including non-technological elements such as politics, economics, and ethics.

The Integrated Science and Technology program offers a program of study that leads to the Master of Science degree in Integrated Science and Technology. The program offers a solid foundation in applied science and technology with a distinct theme in systems. Students acquire quantitative tools for applied systems analysis and design, and for the management of technological issues encountered in contemporary professional practice. The curriculum stresses the use of computers for modeling and simulation, for the
management of information and technology, and for research methodology. The curriculum is unique in its incorporation of social, legal and political aspects of science and technology.

Students focus on selected areas of science and technology with practical, in-depth exposure to the size and complexity of contemporary problems. Depth will be provided through thesis or project study in one of several strategic technology areas distilled from the national critical technologies. These areas include biotechnology, information technology, manufacturing, energy and the environment. Such a class of graduates is unique in having

- breadth of knowledge and skills across a variety of scientific and technological disciplines;
- formal training in collaborative and leadership methods, problem solving techniques from many disciplines, and use of the computer as a problem solving tool; and
- the ability to integrate scientific and technological factors with political, social, economic, and ethical considerations in problem solving.

By developing a systems approach to problem solving, the graduate will be skilled in identifying and capitalizing on the fact that most problems encountered in business or government are inherently systems problems. Characteristics of such systems involve complex interplay of technical, social, political, regulatory, and business issues; multiple, interdependent groups, units, or organizations working in coordination with sometimes conflicting needs; rapid flow of information between individuals and groups; multi-step processes for making products or decisions with ample opportunity for feedback and bottlenecks; and numerous local random events and disturbances that profoundly affect the performance of the overall system.

Integrated Science and Technology

The 30-credit hour curriculum consists of 15 credit hours of common core courses followed by 15 credit hours of elective courses tailored to the individual course of study. The core component reinforces the student’s foundation in science, explores methods of research and analysis in a multidisciplinary environment, and imparts sensitivity to the social context of applying science and technology.

As part of the curriculum, students will be required to complete a six-credit thesis or capstone project. This project/thesis will require students to conduct research, evaluate potential solutions, and implement the selected solution.

Entrance, Continuation and Exit Requirements

Enrolled students will be provided with the ISAT Graduate Student Handbook. This document provides background information about the university, the college, ISAT, and the ISAT Masters Curriculum. It is intended to facilitate progress through the program by identifying the skills all entering students should have, and as a guideline for progress.

All full-time students must attend an orientation held the working day prior to the start of
Academic Programs: Academic Units

term. Part-time students are strongly encouraged to attend the orientation. The purpose of this workshop is to define the guidelines that will facilitate successful completion of the degree. ISAT faculty and Masters' candidates will discuss strategies for success, group dynamics, and provide tutorials in selected skill areas.

Graduation requires successful completion of 30 graduate credit hours in a sequence approved by the student's graduate adviser with a GPA of 3.0 or better, and with no more than six credit hours of C's. Time limitations for completion of the program will follow College of Graduate and Professional Programs guidelines.

Curriculum Components and Details

The 30 credit-hour curriculum for the Master's Degree in Integrated Science and Technology includes a 12-15 credit core program consisting of 4-5 courses in integrated science and technology; 12 graduate elective credits approved by the adviser; and 6 credits of capstone project or thesis research.

The minimum requirements for the program and program course descriptions follow.

<table>
<thead>
<tr>
<th>Master of Science in Integrated Science and Technology Degree Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Requirements</td>
<td></td>
</tr>
<tr>
<td>ISAT510. Foundations in Integrated Science and Technology(^1)</td>
<td>3</td>
</tr>
<tr>
<td>ISAT610. Social Context of Science and Technology</td>
<td>3</td>
</tr>
<tr>
<td>ISAT620. Research Methods in a Multidisciplinary Environment</td>
<td>3</td>
</tr>
<tr>
<td>ISAT630. Computer Modeling and Simulation</td>
<td>3</td>
</tr>
<tr>
<td>ISAT640. Information and Technology Management</td>
<td>3</td>
</tr>
<tr>
<td>Approved electives</td>
<td>12</td>
</tr>
<tr>
<td>ISAT690/700. Capstone Project/Thesis</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>30-33</td>
</tr>
</tbody>
</table>

\(^1\)The first core course, ISAT510, is intended for students requiring additional preparation in science, its methods, and multi-disciplinary problem solving.

As part of the strategic area, the student will be required to complete a six-credit thesis or capstone project. This project/thesis will involve research, investigation and development undertaken by students individually and/or as part of project teams.

To complete the program in one year, students must accomplish two, 12-hour semesters...
which represents a course overload. A student is encouraged to complete two core courses and two electives per semester. Six hours of thesis, ISAT 700, will be completed in the summer following the second semester.

## Course Offerings

### Integrated Science and Technology

**ISAT 501. Workshop in Technology. 1-3 credits.**

Intensive study of special topics in technology of relevant interest. May be repeated for credit when content is different.

**ISAT 503. Workshop in Geospatial Technology. 1-3 credits.**

Intensive study of special topics in geospatial technologies of relevant interest. May be repeated for credit when content is different.

**ISAT 510. Foundations in Integrated Science and Technology. 3 credits.**

This course introduces the student to the fundamental concepts of science and the methodologies required for using an integrated problem-solving approach in the technical area. ISAT graduates are ineligible.

**ISAT 515. Energy Systems. 3 credits.**

This course will present an overview of energy generation and distribution technologies that are in use or under development. Selected technologies will be covered in detail including the underlying scientific principles. In addition, students will study tools and techniques used to measure, control, and analyze energy consumption.

**ISAT 525. Environmental Systems. 3 credits.**

This course covers the basics of environmental pollution, processes, and control technologies. Three major areas of environmental concern (air, water, and waste) are addressed. Environmental risk and decision making are discussed. Topics are presented in an integrated manner in the context of the regulatory programs. Participation in environmental projects such as impact assessment, site remediation, water quality management, air quality monitoring are required.

**ISAT 530. Manufacturing Systems. 3 credits.**

This course covers systematic and analytical treatment of manufacturing systems to identify opportunities for improving existing systems, to design more effective systems, and to
improve decision-making processes in manufacturing. Topics include manufacturing systems; tools for automation and integration in manufacturing; automated process planning; technology change and strategies for implementing new technologies; and others.

**ISAT 540. Information and Technology Management Systems. 3 credits.**

This course focuses on the representation, manipulation, storage, and retrieval of data, information and knowledge from both a historical and contemporary perspective. Students will be introduced both to programming skills and also to introductory concepts in database design and development. The course will stress aspects of data quality, privacy, and security.

**ISAT 550. Biotechnology Systems. 3 credits.**

This course is an intensive survey of the scientific foundations of biotechnology. Specific topics include the history, theory, and applications of recombinant DNA technology, genetic engineering, transgenic organisms, and the role of biotechnology in society.

**ISAT 551. Bioinformatics. 3 credits.**

The amount of DNA sequence data being collected today is increasing rapidly. The student will learn, through lectures and hands-on laboratory exercises, a compendium of algorithms that can search for sequence similarities, create alignments for finding consensus sequences, model three-dimensional structures and more. Prerequisites: ISAT 351, ISAT 454 and ISAT 340 (or their equivalents), or permission of the instructor (requires knowledge of Molecular Biology and database technology).

**ISAT 560. Complex Systems and How They Fail. 3 credits.**

This course provides an interdisciplinary study of complex system operation and failure focusing on real-world critical infrastructure (e.g., energy, telecommunications, health) systems functionality and problems. Based on known threats and hazards, cascading failures that can result in unexpected catastrophes are analyzed. Risk concepts and management strategies are examined.

**ISAT 580. Readings and Research. 1-3 credits.**

This course will allow graduate and advanced undergraduate students to undertake intensive study of selected topics that are of special interest. May be repeated when content changes. Prerequisite: Permission of instructor.

**ISAT 610. Social Context of Science and Technology. 3 credits.**

Critical perspectives on the economic and political systems as they affect scientific
research and technological activity in the U.S. and the world. Case studies of major public policy debates involving science and technology. Identifying institutional players and their value commitments, describing political relationships among players, and designing dynamic solutions to social context dilemmas.

**ISAT 620. Research Methods in a Multidisciplinary Environment. 3 credits.**

An introduction of an applied systems analysis approach to problem solving in a multidisciplinary context. Applications taken from biotechnology, energy, environment, health, information management, and manufacturing. Topics include introduction to systems analysis and its application to social systems, technological systems, and systems in nature; systems characterization and optimization; advanced project management.

**ISAT 630. Computer Modeling and Simulation. 3 credits.**

Use of simulation tools to understand and optimize commonly occurring systems in the concentration areas. Development of simulation models, validation of models, and use of models to aid decision making. Topics include: applicability and limitations of simulation models; the model-building process; discrete-event models; dynamic models; deterministic and stochastic models; system optimization and validation.

**ISAT 640. Information and Technology Management. 3 credits.**

This course focuses on the acquisition, representation, storage, retrieval, and distribution of data, information and knowledge from both a historical and contemporary perspective. It places special emphasis on IKM technology in science and technology and the information economy, the management of data, information, and knowledge as critical enterprise assets. Students will study computer systems as tools for information and knowledge management and examine ethical, legal, and social issues in the management of data, information, and knowledge, including intellectual property, privacy, and security.

**ISAT 650. Advanced Integrated Science and Technology. 3 credits.**

This course focuses on applied science and technology applications for K-12 teachers and industry trainers. Students will develop and assess sources of information on applied science and technology and develop inquiry-based activities to incorporate new issues in applied science and technology into existing curricula.

**ISAT 651. System Requirements Analysis. 3 credits.**

This course will introduce students to the theory and practice of system requirements analysis and definition. Students will explore issues surrounding stakeholder identification and interaction, needs assessment, prototyping, and technical requirements specification. Consideration will be given to various aspects of system requirements, including human factors analysis, traceability, testability, and validation.
**ISAT652. Regulatory Issues. 3 credits.**

The course will introduce the policy process affecting regulation and deregulation of various industries. Study of the theory behind and the institutional forms of regulation will be supplemented by case studies of specific industries. The course will also look at international politics and trade as they affect regulatory regimes globally. Prerequisite: ISAT610.

**ISAT653. Quantitative Systems Analysis. 3 credits.**

Focuses on the life-cycle model of systems design and development. Includes concepts related to data modeling, economic evaluation, optimization methods, human factors, queuing theory, system test and evaluation, and design validation techniques. Object-oriented analysis and design considerations emphasized. Prerequisite: ISAT630.

**ISAT654. Advanced Technology Management. 3 credits.**

This course will introduce students to methods, tools, and techniques for effective management of technology development and application including management of technology within a company; R&D management; Test and Evaluation procedures and metrics; investment strategies; intellectual property issues; fostering entrepreneurship; managing innovation; and technology transfer. The course will also address managing technology as a tool, e.g., equipment modernization. Prerequisite: ISAT640.

**ISAT655. Technology Assessment. 3 credits.**

This course will introduce students to the theory and methods of technology assessment and transfer. Students will apply techniques such as risk analysis, cost-benefit analysis, forecasting, trend impact analysis, and technology sequence analysis to assess the impacts of new technologies on society. In addition, students will study the process of technology innovation, diffusion, and transfer in the context of both developed and developing nations. Prerequisite: ISAT620.

**ISAT656. Systems Design Methodology. 3 credits.**

This course introduces applied systems analysis in a multidisciplinary context. The course introduces methods for planning, implementing, and evaluating management information systems. Topics include data and process modeling, requirements definition, design synthesis, verification, analysis, and control tools. Projects cover applications in biotechnology, energy, environment, health, information management, and manufacturing. Prerequisite: ISAT620 or permission of instructor.

**ISAT657. Management Information Systems. 3 credits.**

This course examines the organizational and technological foundations of information systems in a production operations setting. Topics include selecting and implementing tools...
and systems, database management, information integration, production planning and execution systems, supply chain integration and management and managing system security. Prerequisite: ISAT 640 or permission of instructor.

**ISAT 658. International Contexts of Science and Technology. 3 credits.**

This course will make students aware of the global nature of scientific and technological decision-making and sensitive to the impact of culture on science and technology issues. Research and development system of the United States is placed in a global context. A comparative study of the R&D systems around the world is done. International technical issues, where solutions transcend political boundaries, are covered.

**ISAT 680. Reading and Research. 1-3 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.

**ISAT 690. The Capstone Project. 6 credits.**

The required capstone project for all non-thesis graduate students. Emphasis will be in the student’s designated strategic area, but integrated with at least one other area. The project/thesis will report the results of a project, investigation, or development undertaken by the student individually or as part of a project team.

**ISAT 698. Comprehensive Continuance. 1 credit.**

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

**ISAT 699. The Capstone Project/Thesis Continuance. 2 credits.**

Students completing registration for the maximum number of hours of project credit are required to register for 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.

**ISAT 700. Thesis. 6 credits.**

A research thesis with an emphasis in the student’s designated strategic area, but integrated with at least one other area. The thesis will report the results of original research undertaken individually by the student.
Program Information: Kinesiology

Kinesiology

For information, call (540) 568-6145

Web site: http://www.jmu.edu/kinesiology

Dr. Michael Goldberger, Director

Dr. M. Kent Todd, Graduate Coordinator

Professors

J. Flohr, M. Goldberger, J. Williams

Associate Professor

L. deGaris, L. Ham, P. Kellers, M. Saunders, K. Todd

Assistant Professors


Admission

In addition to the College of Graduate and Professional Programs qualifications for admissions, potential candidates must meet the requirements of the Department of Kinesiology. Contact the department for more information.

Mission

The Department of Kinesiology is dedicated to the development of future leaders in professions that maximize the potential of individuals and society through exercise, sport and leisure activities. Graduate programs in the department include: exercise science, sport and recreation studies, and physical education.
Academic Programs: Academic Units

Program goals are to help students:

- Identify and describe important issues relevant to exercise science, sport, recreation, and physical education.
- Educate others about the relevance of exercise, sport and leisure to individuals and to society.
- Develop and administer safe, effective and scientifically based physical activity, sport and leisure programs that address individual, community and societal needs.
- Enable students to evaluate the quality of information germane to the disciplines of physical activity, sport and leisure.
- Develop the skills needed to conduct quality research.
- Conceive a cognate area of study within the professional field in which they intend to work.

The Department of Kinesiology offers a Master of Science degree with concentrations in clinical exercise physiology, exercise physiology, nutrition and physical activity, athletic administration and coaching, sport and recreation management, and general kinesiology studies. Each concentration offers either a thesis or non-thesis option. The department also offers a five-year program leading to a Master of Arts in Teaching (M.A.T.) designed for initial licensure to teach physical and health education.

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.

Master of Science Concentrations

Exercise Science: Clinical Exercise Physiology

This 36-credit hour program leads to a Master of Science degree with a major in Kinesiology and a concentration in Clinical Exercise Physiology. The program is designed to prepare students to work with clients with a variety of pathological or clinical disorders. Clients may include those with cardiovascular, pulmonary, metabolic, immunological, inflammatory, orthopedic, and neuromuscular disorders. Other clients may include persons from geriatric, pediatric or obstetric populations. Graduates of this program will be prepared to work in hospital-based and community wellness programs, as well as other clinical settings. Program goals were developed in conjunction with the knowledge, skills and abilities identified by the American College of Sports Medicine (ACSM) as essential for preparation as a Registered Clinical Exercise Physiologist.
### Clinical Exercise Physiology Concentration Requirements

<table>
<thead>
<tr>
<th>Minimum Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>KIN 540. Clinical Exercise Physiology I</td>
<td>3</td>
</tr>
<tr>
<td>KIN 640. Clinical Exercise Physiology II</td>
<td>3</td>
</tr>
<tr>
<td>KIN 542. Exercise Programs for Special Populations</td>
<td>3</td>
</tr>
<tr>
<td>KIN 644. Metabolic and Cardiorespiratory Aspects of Exercise</td>
<td>3</td>
</tr>
<tr>
<td>KIN 645. Muscular, Hormonal and Environmental Aspects of Exercise</td>
<td>3</td>
</tr>
<tr>
<td>KIN 655. Research Techniques</td>
<td>3</td>
</tr>
<tr>
<td>KIN 681. Internship in Exercise Science</td>
<td>6-9</td>
</tr>
<tr>
<td>Electives (Selected under advisement)</td>
<td>9-12</td>
</tr>
<tr>
<td></td>
<td>36</td>
</tr>
</tbody>
</table>

### Example Electives

| KIN/NUTR 555. Theories and Practices of Weight Management                           | 3            |
| KIN 650. Exercise Testing and Prescription                                         | 3            |
| KIN 670. Program Development for Wellness Centers                                  | 3            |
| KIN 697. Directed Research in Kinesiology                                          | 3            |
| KIN 700. Thesis                                                                   | 6            |
| HTH 552. Strategies for Health Change                                              | 3            |
| NUTR 545. Nutrition and Exercise                                                   | 3            |
| HUTR 582. Nutrition and Metabolism                                                | 3            |
| NUTR 655. Integrated Nutrition                                                    | 3            |
| PYSC 515. Basic Counseling Skills                                                 | 3            |
| SCOM 680. Special Topics in Health Communication                                  | 3            |

### 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.

### Exercise Physiology Concentration Requirements

<table>
<thead>
<tr>
<th>Minimum Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>KIN 542. Exercise Programs for Special Populations</td>
<td>3</td>
</tr>
<tr>
<td>KIN 547. Principles and Strategies of Athletic Development</td>
<td>3</td>
</tr>
<tr>
<td>KIN 644. Metabolic and Cardiorespiratory Aspects of Exercise</td>
<td>3</td>
</tr>
<tr>
<td>KIN 645. Muscular, Hormonal and Environmental Aspects of Exercise</td>
<td>3</td>
</tr>
<tr>
<td>KIN 650. Exercise Testing, Evaluation and Prescription</td>
<td>3</td>
</tr>
<tr>
<td>KIN 655. Research Techniques</td>
<td>3</td>
</tr>
<tr>
<td>MATH 522. Statistics for Research</td>
<td>3</td>
</tr>
<tr>
<td>Choose one of the following:</td>
<td>3-6</td>
</tr>
<tr>
<td>KIN 697. Directed Research in Kinesiology</td>
<td>3</td>
</tr>
<tr>
<td>KIN 700. Thesis</td>
<td>6-9</td>
</tr>
<tr>
<td>Approved electives</td>
<td>6-9</td>
</tr>
<tr>
<td></td>
<td>33</td>
</tr>
</tbody>
</table>

**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).

### Nutrition and Physical Activity Concentration Requirements

<table>
<thead>
<tr>
<th>Minimum Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>KIN/NUTR 555. Theories and Practices of Weight Management</td>
<td>3</td>
</tr>
<tr>
<td>KIN 644. Metabolic and Cardiorespiratory Aspects of Exercise</td>
<td>3</td>
</tr>
<tr>
<td>KIN 645. Muscular, Hormonal and Environmental Aspects of Exercise</td>
<td>3</td>
</tr>
<tr>
<td>KIN 650. Exercise Testing, Prescription and Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>KIN/HTH 655. Research Techniques</td>
<td>3</td>
</tr>
<tr>
<td>MATH 522. Statistics</td>
<td>3</td>
</tr>
<tr>
<td>NUTR 545. Nutrition and Exercise</td>
<td>3</td>
</tr>
<tr>
<td>NUTR 652. Nutrition Assessment</td>
<td>3-6</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Sport Studies: Athletic Administration/Coaching</th>
</tr>
</thead>
</table>

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.

### Athletic Administration/Coaching Concentration

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Minimum Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>KIN 570. Administration in Sport Studies</td>
<td>3</td>
</tr>
<tr>
<td>KIN 678. Theories and Issues of Coaching</td>
<td>3</td>
</tr>
<tr>
<td>KIN 625. Social Issues in Sport Studies</td>
<td>3</td>
</tr>
<tr>
<td>KIN 631. Philosophy of Sport Studies</td>
<td>3</td>
</tr>
<tr>
<td>KIN 655. Research Techniques</td>
<td>3</td>
</tr>
<tr>
<td>KIN 675. Legal Aspects of Sport Studies</td>
<td>3</td>
</tr>
<tr>
<td>KIN 685. Internship in Sport Studies</td>
<td>3</td>
</tr>
<tr>
<td>6 hours of approved electives or KIN 700 (Thesis)</td>
<td>6</td>
</tr>
</tbody>
</table>

**Athletic Administration option:**

- KIN 572. Facilities in Sport, Recreation & Exercise Programs

**Approved elective**

**Coaching option:**

- KIN 547. Principles and Strategies of Athletic Development

Choose one of the following:

- KIN 510. Principles of Motor Learning
- KIN 506. Advanced Biomechanics
- KIN 622 Motivation and Achievement in Sport

---

### 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.

<table>
<thead>
<tr>
<th><strong>Sport and Recreation Management Concentration Requirements</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Requirements</td>
</tr>
<tr>
<td>KIN 570. Administration in Sport Studies</td>
</tr>
<tr>
<td>KIN 572. Facilities in Sport, Recreation &amp; Exercise Programs</td>
</tr>
<tr>
<td>KIN 625. Social Issues in Sport Studies</td>
</tr>
<tr>
<td>KIN 631. Philosophy of Sport Studies</td>
</tr>
<tr>
<td>KIN 655. Research Techniques</td>
</tr>
<tr>
<td>KIN 673. Fiscal Management of Sport, Recreation &amp; Exercise Programs</td>
</tr>
<tr>
<td>KIN 675. Legal Aspects of Sport Studies</td>
</tr>
<tr>
<td>KIN 685. Internship in Sport Studies</td>
</tr>
<tr>
<td>Choose one of the following:</td>
</tr>
<tr>
<td>Nine hours of approved electives</td>
</tr>
<tr>
<td>KIN 700. Thesis (6 credits) and one approved elective (3 credits)</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

**General Kinesiology Studies**

This 33-credit hour program leads to a Master of Science degree with a major in kinesiology and a concentration in general kinesiology. 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 ours.

<table>
<thead>
<tr>
<th><strong>General Kinesiology Studies Concentration Requirements</strong></th>
</tr>
</thead>
</table>
## Master of Arts in Teaching

The Master of Arts in Teaching (M.A.T.) leads to an initial Virginia licensure to teach physical and health education PK-12. This graduate program is offered as a fifth-year for students who have completed prerequisite courses and experiences at the undergraduate level. A listing of the undergraduate courses may be found in the current JMU Undergraduate Catalog. Post-baccalaureate degree students who are interested in the MAT program should consult with the PHETE coordinator, Dr. Jacqueline Williams, to determine their approved support area of study.

### Minimum Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>KIN 510. Principles of Motor Learning</td>
<td>3</td>
</tr>
<tr>
<td>KIN 631. Philosophy of Sport Studies</td>
<td>3</td>
</tr>
<tr>
<td>KIN 655. Research Techniques</td>
<td>3</td>
</tr>
<tr>
<td>Choose one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>KIN 547. Principles and Strategies of Athletic Development</td>
<td></td>
</tr>
<tr>
<td>KIN 644. Metabolic and Cardiorespiratory Aspects of Exercise</td>
<td></td>
</tr>
<tr>
<td>KIN 645. Muscular, Hormonal and Environmental Aspects of Exercise</td>
<td></td>
</tr>
<tr>
<td>Choose one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>KIN 622. Motivation and Achievement in Sport</td>
<td></td>
</tr>
<tr>
<td>KIN 625. Social Issues in Sport Studies</td>
<td></td>
</tr>
<tr>
<td>Choose one of the following:</td>
<td>3-6</td>
</tr>
<tr>
<td>KIN 697. Directed Research in Kinesiology</td>
<td></td>
</tr>
<tr>
<td>KIN 700. Thesis</td>
<td></td>
</tr>
<tr>
<td>Approved support area of study</td>
<td>9</td>
</tr>
<tr>
<td>Approved electives</td>
<td>3-6</td>
</tr>
</tbody>
</table>

**Total:** 33 credits
To be fully admitted to the fifth-year MAT program, students must have completed the following requirements:

- Satisfy all requirements for admission to the teacher education program.
- Complete the undergraduate curriculum with a cumulative GPA of 2.5 or better. JMU graduates must have a 3.0 in their last 60 hours.
- Achieve a passing score on the PRAXIS exam.
- Satisfy all requirements for admission to the College of Graduate and Professional Programs.

### Fifth-Year MAT Program Requirements

<table>
<thead>
<tr>
<th>Minimum Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>KIN 511. Technology in Health and Physical Education</td>
<td>3</td>
</tr>
<tr>
<td>KIN 512. Instructional Methods in Middle and Secondary Physical Education</td>
<td>3</td>
</tr>
<tr>
<td>KIN 513. Professional Issues for Prospective Physical and Health Educators</td>
<td>3</td>
</tr>
<tr>
<td>KIN 610. Curriculum Design &amp; Development in Health and Physical Education</td>
<td>3</td>
</tr>
<tr>
<td>KIN 611. Teaching Diverse Populations in Health and Physical Education</td>
<td>3</td>
</tr>
<tr>
<td>KIN 612. Analysis of Teaching &amp; Learning</td>
<td>3</td>
</tr>
<tr>
<td>KIN 625. Social Issues in Sport</td>
<td>3</td>
</tr>
<tr>
<td>KIN 683. Secondary Internship in Health and Physical Education</td>
<td>4</td>
</tr>
<tr>
<td>KIN 683S. Seminar for Professional Practice</td>
<td>2</td>
</tr>
<tr>
<td>Choose one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>KIN 655. Research Techniques</td>
<td></td>
</tr>
<tr>
<td>HTH 655. Research Techniques</td>
<td></td>
</tr>
<tr>
<td>EDUC 630. Inquiry in Education</td>
<td></td>
</tr>
<tr>
<td>Approved elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>33</td>
</tr>
</tbody>
</table>

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 511. Technology in Health and Physical Education. 3 credits.**

Addresses technological issues related to education and explores a variety of educational technologies available to enhance the instruction of physical and health education. An action plan for the utilization of educational technologies will be developed.

**KIN 512. Instructional Methods in Middle and Secondary Physical Education. 3 credits.**

A detailed study that builds upon the undergraduate instructional methods in physical education with developmentally appropriate teaching and management techniques for middle and secondary physical education. An in-depth review of the theoretical framework of the teaching styles and application of such in a practical setting are vital components.

**KIN 513. Professional Issues for Prospective Physical and Health Educators. 3 credits.**

An in-depth examination of current issues and research on teaching and teachers in physical and health education.

**KIN 540. Clinical Exercise Physiology I. 3 credits.**
A study of the benefits, risks and strategies for exercise testing and programming for persons with cardiovascular and metabolic disorders. Prevalence, economic ramifications, pathophysiology, clinical manifestations, assessment, pharmacology, potential benefits and risk of exercise, strategies for exercise programming and other relevant topics are emphasized.

**KIN 542. Exercise Programming for Special Populations. 3 credits.**

This course will include an in-depth study of the recommended procedures for exercise testing and prescription for non-diseased special populations, children and youth, elderly, women and pregnant women.

**KIN 547. Principles and Strategies of Athletic 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. Prerequisite: an undergraduate course in exercise physiology or permission of the instructor.

**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 610. Curriculum Design and Development in Health and Physical Education. 3 credits.**

An advanced study that builds upon the undergraduate elementary curriculum course by
focusing on the middle and secondary student, curriculum models, and the development of effective and futuristic physical education units and programs that meet the needs of the populations.

**KIN 611. Teaching Diverse Populations in Health and Physical Education. 3 credits.**

The diversity of student populations in schools relates to differences in ability, socioeconomic status, cultural background, race, religious beliefs, sexual orientation and gender. This is an in-depth study of appropriate teaching methods that celebrate diversity and inclusion. Experiences will serve to diminish fears and the perpetuation of stereotypes, and to allow opportunities to plan and implement activities in which all students are challenged and successful.

**KIN 612. Analysis of Teaching and Learning. 3 credits.**

An in-depth look at assessing and improving teaching. A systematic approach to improving teaching techniques and assessments of student learning will be discussed and implemented in a practical setting.

**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 640. Clinical Exercise Physiology II. 3 credits.**

A study of the benefits, risks, strategies for exercise testing and programming for persons with respiratory, neuromuscular, skeletal and immunological diseases, as well as psychological disorders. Prevalence, economic ramifications, pathophysiology, clinical manifestations, assessment, pharmacology, potential benefits and risk of exercise and exercise programming strategies.

**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. Prerequisite: 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. Prerequisite: 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. Prerequisite: 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 and 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. 3 credits.

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 678. Theories and Issues of Coaching. 3 credits.

Both theoretical and practical aspects of coaching in secondary schools and higher education.

Kin 680. Reading and Research. 3 credits.

Directed reading in designated areas and specialized interests. Investigating, researching and reporting. Course may not be repeated. Prerequisite: permission of the instructor.

Kin 681. Internship in Exercise Science. 3-9 credits.

Provides students a practical experience in exercise testing and prescription, program administration and other professional responsibilities in wellness/fitness or clinical exercise physiology. Specific assignment is based on student need. Taken in the final semester of program. Prerequisite: permission of the instructor.

Kin 683. Secondary Internship in Health and Physical Education. 4 credits.

An advanced supervised teaching experience at the middle or high school level in both health and physical education settings. Enables the preservice teacher an opportunity to apply effective teaching techniques and innovative forms of instruction and organization at the secondary level. Corequisite KIN 683S.

Kin 683S. Seminar for Professional Practice. 2 credits.

An opportunity for student teachers to reflect on their teaching skills, critically assess their experiences and to nurture life-long professional development. Connecting theory to practice. Corequisite: KIN 683, Secondary Internship in Health and Physical Education.

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.) Prerequisite: permission of the instructor.
**KIN 697. Directed Research in Kinesiology and Recreation Studies. 3 credits.**

Advanced research in kinesiology and/or recreation under the direction of a graduate advisor. Course will be graded on an S/U basis. Course may not be repeated. Prerequisite: 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. Prerequisite: 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. Prerequisite: permission of the instructor.

**KIN 700. Thesis. 3-6 credits.**

Prerequisite: KIN 655 or equivalent and permission of the instructor.
Program Information: Mathematics Education

**Mathematics**

Phone: (540) 568-6184


**Dr. Laurie Cavey, Program Coordinator**

**Professor**

D. Carothers

**Associate Professor**

J. Fitzgerald

**Assistant Professors**

E. Arnold, L. Cavey, J. Kidd, L. Lovin, J. Rosenhouse

**Admission Criteria**

**Prerequisites**

Students should have completed undergraduate mathematics (15 credits or more) including a calculus sequence and linear algebra. An undergraduate major in mathematics or additional mathematics courses beyond linear algebra will be helpful but not necessary. Students should be eligible for admission to the JMU College of Graduate and Professional Programs and should consult the graduate college Web page for additional information. Please contact those listed at the bottom of this page if you have questions about entrance requirements.

**To Apply**

Prospective students should visit the Web page of the College of Graduate and
Professional Programs at JMU to find links with information about the application process, as well as an online application. From this page, you will be able to create your username and password for your account. Proceed to the Directions and Information link, where there is further information and a go to application link (you will click on Application for Admission on the next page). You do not need to complete the online application in one session, as your information will be saved. In the admission section (following the personal data section), click on College and Major Search and select Mathematics Education.

After completing and submitting an application, contact Laurie Cavey, Judy Kidd or David Carothers to expedite the application/admission process.

The Master of Education in Mathematics prepares high school teachers for positions of instructional leadership as master teachers of mathematics. The program extends the professional competence of high school mathematics teachers through an in-depth study of mathematics and mathematics teaching and learning. Program participants will demonstrate their knowledge through individual and collaborative projects and presentations, field-based curriculum implementation and evaluation, and the use of reflective classroom inquiry. The program, which is a collaborative effort of the College of Education and the Department of Mathematics and Statistics, is designed to provide opportunities for mathematics teachers to deepen their understanding of mathematics by learning advanced mathematical topics in relation to the mathematics they actually teach. The program will also help prepare teachers to teach advanced secondary mathematics courses, such as Advanced Placement Calculus and Statistics. The proposed mathematics education courses will provide opportunities for teachers to learn mathematics-specific technologies for learning, how to implement appropriate mathematics curriculum, and how to continue to develop as professional educators. In addition, the program is designed to develop teachers' understanding of and ability to apply education research within their own practice. As a culminating project, teachers will conduct research in their own classrooms, where they analyze how aspects of their own practice impacted their own as well as their students' learning. The program content is consistent with the recommendations of the Mathematical Education of Teachers report of the Conference Board of the Mathematical Sciences.

**Plan of Study**

The Master of Education in Mathematics includes a minimum of 34 credit hours of coursework organized as follows: educational inquiry, 4 hours; mathematics education, 9 hours; mathematics, 21 hours. The student must also complete a comprehensive examination.
Course Offerings

Mathematics Education

MAED 600. Seminar in Mathematics Education. 3 credits.

This survey course is designed to familiarize teachers with current research topics related to mathematics teaching and learning. Research topics include: teacher professional development, mathematical reasoning (e.g. algebraic, geometric, multiplicative, proportional, arithmetical); implementing standards-based curriculum, assessing student learning, the role of representations, teaching for problem solving, and theories that frame research.

MAED 610. Curricular Trends in Mathematics Teaching and Learning. 3 credits.

This course offers opportunities for teachers to explore curricular goals and implementations for various mathematical topics addressed in middle and secondary mathematics classrooms. Teachers will consider different curricula and how those curricula might be implemented to effectively support student learning. Mathematics topics addressed include: algebra, proportional reasoning, geometry, and advanced mathematics.

MAED 620. Teaching Mathematics with Technology. 3 credits.
This course offers opportunities for teachers to explore research-based applications of technology tools in secondary and middle school mathematics. Teachers will engage in advanced use of various technology tools for learning and teaching mathematics, including designing technology environments, appropriate investigation tasks, and professional developmental activities.

Mathematics

MATH 510. Analysis for Teachers. 3 credits.
A course to update and broaden secondary teachers’ capability and point-of-view with respect to topics in analysis. Applications of concepts such as limits, continuity, differentiation and integration. May be taken for graduate credit and for certificate renewal by secondary school teachers. Prerequisite: undergraduate analysis or permission of instructor.

MATH 512. Discrete Mathematics for Teachers. 3 credits.
A course to update and broaden secondary teachers’ capability and point-of-view with respect to topics in discrete mathematics. May be taken for graduate credit and for certificate renewal by secondary school teachers. Beginning Spring 2007. Prerequisite: undergraduate mathematics through linear algebra.

MATH 514. Algebra for Teachers. 3 credits.
From an advanced viewpoint, an investigation of topics in algebra from high school curriculum. Theory of equations, polynomial rings, rational functions and elementary number theory. Course may be taken for graduate credit and for certificate renewal by secondary school teachers. Beginning Summer 2007. Prerequisite: undergraduate algebra or permission of instructor.

MATH 520. Geometry for Teachers. 3 credits.
Topics in geometry of concern to secondary teachers in their work and provision for background and enrichment. Various approaches to study of geometry, including vector geometry, transformational geometry and axiomatics. Course may be taken for graduate credit and for certificate renewal by secondary teachers. Prerequisite: undergraduate mathematics through linear algebra or undergraduate geometry.

MATH 615. History of Mathematics. 3 credits.
Topics in the history of mathematics of particular concern to secondary teachers in their work and provision for background and enrichment. Selected topics spanning ancient times to the present. Course may be taken for graduate credit and for certificate renewal by secondary teachers.
**MATH 618. Probability and Statistics for Teachers II. 3 credits.**

A course to update and broaden secondary teacher's capability and point-of-view with respect to selected topics in statistics and to prepare teachers to teach AP statistics. Course may be taken for graduate credit and for certificate renewal by secondary school teachers. Beginning Summer 2006. Prerequisite: MATH 517.

**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.
Academic Programs: Academic Units

Program Information: Music

Music

Phone: (540) 568-6197

Web site: http://www.jmu.edu/music

Dr. Jeffrey Showell, Director

Professors


Associate Professors

B. Cockburn, D. Cottrell, R. DiGiallonardo, C. Donakowski, C. Dotas, J. Hiatt, W. Huang, M. Kirkdorffer, G. Ritcher

Assistant Professors


Instructors

M. Adams, S. Rikkers

Admission Criteria and Degree Requirements

A student entering a graduate degree 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 3.0 or better in music studies.

In addition to College of Graduate and Professional Programs requirements (including
successful completion of the GRE General Exam), 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.

Refer to http://www.jmu.edu/music/auditions/graduate.html for specific graduate audition
details.

Mission

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 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 students, 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
provide 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 their 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 in the Master of Music degree program must complete 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.

As per JMU College of Graduate and Professional Programs requirements, successful completion of the Master of Music degree includes an oral comprehensive examination to be arranged at a date convenient for the master’s candidate, adviser and comprehensive committee.

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 the coordinator of graduate studies for the 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 the coordinator of graduate studies for 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 their adviser.

Prior to the end of the first semester, or after completion of nine hours of credit in the Master of Music program, students will submit a program of study form to the graduate coordinator upon approval by their adviser.

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 include courses from the 600 level and above. No more than six credits in workshops (501) may be used to meet minimum requirements for the degree.

Concentrations

<table>
<thead>
<tr>
<th>Conducting Concentration Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Requirements</td>
<td></td>
</tr>
<tr>
<td>MUS 600. Introduction to Graduate Studies in Music</td>
<td>3</td>
</tr>
<tr>
<td>MUS 601. Graduate Seminar in Music History</td>
<td>3</td>
</tr>
<tr>
<td>MUS 605. Analytical Studies in Music Literature</td>
<td>3</td>
</tr>
<tr>
<td>Music Literature</td>
<td>9</td>
</tr>
<tr>
<td>Academic Programs: Academic Units</td>
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<tr>
<td>Choral track: 1</td>
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<tr>
<td>MUS 556 and 557. Choral Literature</td>
<td></td>
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<tr>
<td>Wind track: 2</td>
<td></td>
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<tr>
<td>MUS 564. Symphonic Literature</td>
<td></td>
</tr>
<tr>
<td>MUS 548. History and Literature of Wind Performance</td>
<td></td>
</tr>
<tr>
<td>Orchestral track: 2</td>
<td></td>
</tr>
<tr>
<td>MUS 562, 563, 578 or 579. Romantic, 20th-Century, Baroque or Classical Music</td>
<td></td>
</tr>
<tr>
<td>MUS 564. Symphonic Literature</td>
<td></td>
</tr>
<tr>
<td>MUAP 610. Applied Conducting 3 6</td>
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<tr>
<td>(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:</td>
<td></td>
</tr>
<tr>
<td>MUAP 610A. Choral Conducting</td>
<td></td>
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<tr>
<td>MUAP 610B. Orchestral Conducting</td>
<td></td>
</tr>
<tr>
<td>MUAP 610C. Wind Conducting</td>
<td></td>
</tr>
<tr>
<td>MUAP 696. Lecture Recital         2</td>
<td></td>
</tr>
<tr>
<td>Approved electives, 500-600 level 6</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td></td>
</tr>
</tbody>
</table>
1. 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.

2. 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.

3. Lab in ensemble will be required each semester of enrollment in applied conducting.

### Music Education Concentration Requirements

<table>
<thead>
<tr>
<th>Minimum Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 548, 556, 557, 562, 563, 564, 578 or 579. Music Literature</td>
<td>3</td>
</tr>
<tr>
<td>MUS 600. Introduction to Graduate Study in Music</td>
<td>3</td>
</tr>
<tr>
<td>MUED 671. Research in Music Education</td>
<td>2</td>
</tr>
<tr>
<td>Choose one of the following:</td>
<td>6</td>
</tr>
<tr>
<td>MUED 680 (three credits) and Music education elective courses (three credits)(^1)</td>
<td></td>
</tr>
<tr>
<td>MUED 700. Thesis (six credits)</td>
<td></td>
</tr>
<tr>
<td>Music courses (MUS) Theory, Arranging, Counterpoint, Analytical Studies in Music Literature or Music Theory Practices</td>
<td>2-3</td>
</tr>
<tr>
<td>Applied music study (MUAP) (may include two credit ensembles)</td>
<td>4</td>
</tr>
<tr>
<td>Approved electives(^1)(^-)(^2)</td>
<td>6-7</td>
</tr>
<tr>
<td>Approved electives(^1)(^-)(^2)</td>
<td>30</td>
</tr>
</tbody>
</table>
1 MUED 660 and 661 are strongly recommended as electives for students pursing the degree during the summer.
2 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.

<table>
<thead>
<tr>
<th>Performance Concentration Requirements¹</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Minimum Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>MUS 600. Introduction to Graduate Study in Music</td>
<td>3</td>
</tr>
<tr>
<td>MUS 601. Graduate Seminar in Music History</td>
<td>3</td>
</tr>
<tr>
<td>MUS 605. Analytical Studies in Music Literature</td>
<td>3</td>
</tr>
<tr>
<td>MUS 562, 563, 578 or 579. Music Literature</td>
<td>3</td>
</tr>
<tr>
<td>MUAP 500 level. Ensembles²</td>
<td>2-4</td>
</tr>
<tr>
<td>MUAP 600 level. Applied major²</td>
<td>6-9</td>
</tr>
<tr>
<td>MUAP 695 or 696. Recital or Lecture Recital²</td>
<td>1-2</td>
</tr>
<tr>
<td>Music electives in theory, literature and pedagogy</td>
<td>3</td>
</tr>
<tr>
<td>Approved electives, 500-600 level</td>
<td>3-6</td>
</tr>
<tr>
<td></td>
<td>32</td>
</tr>
</tbody>
</table>

¹ 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.

² Minimum of 11 credits in the applied major, ensemble and recital credits.

<table>
<thead>
<tr>
<th>Theory/Composition Concentration Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Minimum Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>MUS 600. Introduction to Graduate Study in Music</td>
<td>3</td>
</tr>
<tr>
<td>MUS 601. Graduate Seminar in Music History</td>
<td>3</td>
</tr>
</tbody>
</table>
### Academic Programs: Academic Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 605</td>
<td>Analytical Studies in Music Literature</td>
<td>3</td>
</tr>
<tr>
<td>MUS 551, 552, 651 or 652. Music Composition¹</td>
<td>4-6</td>
<td></td>
</tr>
<tr>
<td>MUS 562, 563, 578, 579. Music Literature</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MUAP courses. Applied Studies and/or Ensemble</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MUS 700. Thesis in Theory or</td>
<td>3-6</td>
<td></td>
</tr>
<tr>
<td>MUS 697. Composition Project, or MUS 680.</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Electives in music literature, performance, pedagogy and additional composition²</td>
<td>6-9</td>
<td></td>
</tr>
</tbody>
</table>

¹ Composition majors are required to take the six-hour option. ² 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

#### Music Minor Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Requirements</td>
<td></td>
</tr>
<tr>
<td>MUS courses. Music courses</td>
<td>3</td>
</tr>
<tr>
<td>MUED 600 level. Music Education Courses</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>6</td>
</tr>
<tr>
<td>Music (MUS), Music Education (MUED) and Applied Music (MUAP) courses.</td>
<td>4-6</td>
</tr>
<tr>
<td>Workshop courses, 501 and independent studies</td>
<td>3</td>
</tr>
<tr>
<td>680, 690 and 691 not to exceed a total of three credit hours applicable to the minor</td>
<td>2</td>
</tr>
<tr>
<td>Applied Music (MUAP) courses, lessons and/or ensembles, not to exceed three credits</td>
<td>3-6</td>
</tr>
<tr>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>
**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; advanced 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.**

Students explore the art of arranging songs for solo and choral groups with or without accompaniment. Multiple styles and choral ensemble types are included. Those enrolled in 541 are responsible for rehearsing and leading performances sung by the class and university ensembles.

**MUS 542. Instrumental Arranging. 2 credits.**

Arranging for various instrumental ensembles, including techniques of orchestration. Class projects include orchestrating excerpts for brass, woodwind, and string ensembles, and a complete arrangement for full wind ensemble or symphony orchestra.

**MUS 543-544. Counterpoint. 2 credits each semester.**

Modal and tonal counterpoint. Two, three and four voice forms, florid counterpoint. Study of imitative techniques and 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.**

An advanced survey of choral literature from the pre-Renaissance through the Classical period including a cappella and accompanied works. A thorough examination will be undertaken of the parallel trends in keyboard and instrumental music through the mature works of Beethoven.

**MUS 557. Choral Literature II. 3 credits.**

An advanced survey of choral literature from the Romantic period through the present, including small and large form repertoire and a cappella and accompanied works. A thorough examination will be undertaken of the parallel trends in keyboard and instrumental music.

**MUS 560. Piano Literature I. 2 credits.**

An advanced study of Baroque and Classical literature for the piano encompassing solo and concerto repertoire from literature for clavichord, harpsichord and pianoforte through the mature works of Beethoven.

**MUS 562. Music of the Romantic Period. 3 credits.**


**MUS 563. Twentieth-Century Music. 3 credits.**


**MUS 564. Symphonic Literature. 3 credits.**

An advanced study of symphonic literature concentrating primarily on major composers and compositions from the Baroque Era to the present.

**MUS 565. Opera History and Literature. 3 credits.**

An advanced study of the history of opera ca. 1600 through the 20th century.

**MUS 567. Solo Vocal Literature. 3 credits.**
Academic Programs: Academic Units

An advanced survey of specific areas of vocal literature to include the early English air, classic Italian art songs, the German lied, the French art song and contemporary art song.

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.

An advanced study of Romantic, Impressionistic and 20th-century literature for the piano, including solo and concerto repertoire, with an 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.

An advanced survey of scientific and empirical approaches to vocal pedagogy.

MUS 578. Music of the Baroque Period. 3 credits.

An advanced study of western music and its historical contexts from ca. 1590-1750.

MUS 579. Music of the Classical Period. 3 credits.
An advanced study of the music of Pre-classic composers, Mozart, Haydn, early Beethoven and their contemporaries.

**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 e-campus 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. 1-6 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 non-degree 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 sight-singing, 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
Academic Programs: Academic Units

Academic Programs: Academic Units

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 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. Rute 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 660. Introduction to Graduate Study in Music Education. 1 credit.
This course provides an overview of the goals and guiding principles for the Masters of Music with a concentration in Music Education. The required portfolio project will be begun in this course.

MUED 661. The Professional Portfolio. 1 credit.
This course provides the opportunity to draw together the strands of the Masters of Music with a concentration in Music Education in the form of a professional portfolio and in preparation for the comprehensive exam and the thesis/document.

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. 1 - 6 credits.**
Program Information: Nonmajor Graduate Courses

**Nonmajor Graduate Courses**

The following academic units 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 academic unit involved.

**Course Offerings**

**Center for Geographic Information Science**

*Dr. Steven Frysinger, Director*

**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.

**Center for Economic Education**

*Dr. William C. Wood, Director*

**ECON 501. 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 e-campus.)

**Communication Studies**

*Dr. Eva M. McMahan, Director*

**SCOM 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.

Mathematics

**Dr. David Carothers, 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.

Physics

**Dr. C. Steven Whisnant, 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. H.B. Cavalcanti, 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.

Theatre

**William J. Buck, Director**

**THEA 501. Teachers' Workshop in Theatre. 3 credits. (Summer.)**
An intensive study of the teaching and practice of theatre, specifically in intermediate and secondary schools. Opportunities for practical work within summer productions offered in the school.

**THEA 540. Seminar in Theatre. 3 credits.**

Studies of topics in academic and professional theatre. Emphasis on research methods unique to theatre studies. Consideration of topics in both theoretical and practical aspects of theatre.

**THEA 585. American Theatre History. 3 credits.**

Study and analysis of the American theatre 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 theatre.

**THEA 588. Experimental Theatre. 3 credits.**

Study of avant-garde theatre. Emphasis on motivating and guiding advanced students to a higher degree of aesthetic appreciation. Consideration of the relationship of experimental theatre to the traditional theatre. Prerequisite: Permission of instructor.
Academic Programs: Academic Units

Program Information: Nursing

Nursing

Phone: (540) 568-6314

Web site: http://www.nursing.jmu.edu/index.htm

Dr. Merle Mast, Department Head

Dr. Gohar Karami, Graduate Program Coordinator

Professors
G. Karami, M. Mast, J. Rocchiccioli

Associate Professors
L. Hulton, V. Martin

Assistant Professors
M. Eaton, L. Sobel, S. Strang

Instructors
S. Conaty Buck, D. Gochenour

Admission

To be considered for admission to the program prospective students must:

- Apply to the Graduate College (http://www.jmu.edu/cgop)
- Complete the Nursing Graduate Program Supplemental Application form.
- Hold a Bachelor of Science in Nursing (B.S.N.) with a cumulative GPA of 2.8
- Hold a current Registered Nurse license
- Provide GRE Scores within the past 5 years (Contact program coordinator for more information)
Academic Programs: Academic Units

- Have the equivalent of 12 full-time months of clinical nursing experience within the past 3 years
- Have taken undergraduate courses in Statistics and Health Assessment with a grade of C or higher (Contact program coordinator for more information)
- Meet the department's technical standards for admission
- Foreign school graduates: Pass CGFNS Text, R.N. License, TOEFL (550) (Contact program coordinator for more information)

Additional documentation will be required upon admission.

Application Deadline

Full and part-time students will enter the program in the fall or spring semester of each year. Applications are processed on a rolling admission basis until the class fills. Applicants who apply prior to April 1 will be given first consideration.

Application Evaluation Criteria

Evaluation criteria will include previous academic and scholarly work, professional experience, personal and professional goals and their relationship to the mission of the Department of Nursing. References will be reviewed and an interview may be required.

Mission

The primary mission of the nursing department is to provide quality, professional undergraduate and graduate nursing education that prepares nursing leaders to influence a changing profession, society, health care system, and global health needs.

Purposes

In order to support and accomplish this mission the nursing faculty has identified the following purposes:

- Prepare nursing professionals who provide culturally competent, holistic, evidence-based nursing care to individuals, families, aggregates, and communities in a wide variety of settings.
- Promote a community of learning that models professional values and lifelong professional development for both faculty and students.
- Promote service-learning activities that include collaborative, interdisciplinary initiatives and partnerships between nursing education and the practice arena to meet the future health needs of consumers.
- Conduct research and creative scholarship to generate nursing knowledge and disseminate that knowledge through collaboration, publication, and presentations.

Accreditation

The Department of Nursing has full Bachelor's of Science in Nursing accreditation by the
Commission on Collegiate Nursing Education (CCNE) and will seek accreditation for the Masters in Science in Nursing in the fall of 2005.

**Program of Study**

The James Madison University Department of Nursing offers a Masters of Science in Nursing degree with role options of Adult or Gerontological Nurse Practitioner or of Nurse Educator in collegiate, acute and community health care settings. The program is 44 (Educator) or 48 (NP) credit hours and emphasizes care coordination and rural health care. Students are admitted for full-time or part-time study. Full-time students can complete the program in four full-time academic semesters. NP students can complete an optional 3-credit practicum to qualify for dual adult and gerontological certification. Students choose to complete a 2-credit Directed Study or a 5-credit Thesis option.

The Adult and Gerontological Nurse Practitioner programs meet the competencies outlined by the National Organization of Nurse Practitioners (NONPF). Students complete a total of 540 contact practicum hours required for certification in their specialty areas by the American Nurses Credentialing Center (ANCC). Nurse Practitioner students can obtain dual certification as Adult and Gerontological Nurse Practitioners with additional practicum hours.

The Nurse Educator program meets the Nurse Education Competencies as outlined by the Southern Regional Education Board and the National League for Nursing (NLN). Nurse Educator students complete 420 contact hours of educational residency.

**Master of Science in Nursing**

**Curriculum Components**

**Graduate Core:** Courses and content essential to any master's degree in nursing. Some courses are cross-disciplinary.

**Advanced Practice Core:** Courses and content essential to care delivery and care coordination in an advanced practice nurse role.

**Role Specialty Courses:** Classroom and practicum courses or educator residencies that are unique to the role specialties of advanced practice or nursing education.

**Scholarly Project:** Students complete either a Directed Study (2 credits) or a Thesis (5 credits).

**Master of Science in Nursing Requirements**

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<table>
<thead>
<tr>
<th>Academic Programs: Academic Units</th>
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</thead>
<tbody>
<tr>
<td><strong>Graduate Core</strong></td>
</tr>
<tr>
<td>NSG 524. Health Care Environment</td>
</tr>
<tr>
<td>NSG 511. Epidemiology</td>
</tr>
<tr>
<td>NSG 611. Research for the Advanced Health Professional</td>
</tr>
<tr>
<td><strong>Choose one:</strong></td>
</tr>
<tr>
<td>NSG 633. Theoretical Foundations and Roles in Advanced Practice Nursing</td>
</tr>
<tr>
<td>NSG 642. Theoretical Foundations and Roles in Nursing Education</td>
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<tr>
<td></td>
</tr>
<tr>
<td><strong>Advanced Practice Core</strong></td>
</tr>
<tr>
<td>NSG 510. Health Informatics for Advanced Practice Professionals</td>
</tr>
<tr>
<td>NSG 520. Advanced Health Assessment</td>
</tr>
<tr>
<td>NSG 521. Advanced Concepts in Pathophysiology</td>
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<tr>
<td>NSG 522. Advanced Clinical Pharmacotherapeutics</td>
</tr>
<tr>
<td>NSG 523. Concepts in Aging</td>
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<tr>
<td><strong>Role Specialty Courses</strong></td>
</tr>
<tr>
<td>Adult/Older Adult NP</td>
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<tr>
<td>NSG 630. Care Delivery and Coordination I</td>
</tr>
<tr>
<td>NSG 631. Care Delivery and Coordination II</td>
</tr>
<tr>
<td>NSG 632. Coordinated Care of the Elderly</td>
</tr>
<tr>
<td>NSG 671. Practicum I</td>
</tr>
<tr>
<td>NSG 672. Practicum II</td>
</tr>
<tr>
<td>NSG 673. Practicum III</td>
</tr>
<tr>
<td>NSG 696. Dual Certification Practicum (optional)</td>
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<tr>
<td></td>
</tr>
<tr>
<td>Nurse Educator</td>
</tr>
<tr>
<td>NSG 640. Curriculum Development in Nursing</td>
</tr>
</tbody>
</table>

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Academic Programs: Academic Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSG 641</td>
<td>Curriculum Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>NSG 643</td>
<td>Technology in Nursing Education</td>
<td>3</td>
</tr>
<tr>
<td>NSG 674</td>
<td>Education Residency I</td>
<td>4</td>
</tr>
<tr>
<td>NSG 675</td>
<td>Education Residency II</td>
<td>16</td>
</tr>
</tbody>
</table>

**Scholarly Project**

Choose one:

- NSG 697. Directed Study 2
- NSG 700. Thesis 5

**Post-Master's Certificate Programs**

**Admission**

To be considered for admission to the program prospective students must have:

- Masters of Science in Nursing degree
- Graduate level courses in research and statistics
- GPA of 3.0 on 4.0 scale for masters level coursework
- Current RN license
- Evidence of personal and professional qualifications in the form of two professional recommendations
- Personal interview upon request

**Post-Master's Certificate Program in Nursing Education**

The Post-Master's Certificate Program in Nursing Education totals 17 credit hours and can be completed in 3-4 semesters. Students complete seven credits of educational residency.
## Academic Programs: Academic Units

### Sequence of Courses

<table>
<thead>
<tr>
<th>Semester 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>NSG 640. Curriculum Development in Nursing</td>
<td>3</td>
</tr>
<tr>
<td>NSG 642. Theoretical Foundations and Roles in Nursing Education</td>
<td>1</td>
</tr>
<tr>
<td>NSG 643. Technology in Nursing Education</td>
<td>3</td>
</tr>
</tbody>
</table>

### Sequence of Courses

<table>
<thead>
<tr>
<th>Semester 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>NSG 641. Curriculum Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>NSG 674. Education Residency I</td>
<td>3</td>
</tr>
</tbody>
</table>

### Sequence of Courses

<table>
<thead>
<tr>
<th>Semester 3</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>NSG 675. Education Residency II</td>
<td>4</td>
</tr>
</tbody>
</table>

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### Post-Master's Nurse Practitioner Certificate Program

The Post-Master's Nurse Practitioner Certificate Program totals 23-32 credit hours, depending on courses previously taken. Students complete 9 credits of practicum.

<table>
<thead>
<tr>
<th>Nurse Practitioner Certificate Program Requirements</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sequence of Courses</td>
<td></td>
</tr>
<tr>
<td>Semester 1</td>
<td></td>
</tr>
<tr>
<td>NSG 520. Advanced Health Assessment</td>
<td>3</td>
</tr>
<tr>
<td>NSG 521. Advanced Concepts in Pathophysiology</td>
<td>3</td>
</tr>
<tr>
<td>NSG 523. Concepts in Aging</td>
<td>3</td>
</tr>
<tr>
<td>Semester 2</td>
<td></td>
</tr>
<tr>
<td>NSG 522. Advanced Clinical Pharmacotherapeutics</td>
<td>3</td>
</tr>
</tbody>
</table>
Academic Programs: Academic Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSG 630</td>
<td>Care Delivery and Coordination I</td>
<td>4</td>
</tr>
<tr>
<td>NSG 671</td>
<td>Practicum I</td>
<td>2</td>
</tr>
<tr>
<td><strong>Semester 3</strong></td>
<td></td>
<td><strong>Credit Hours</strong></td>
</tr>
<tr>
<td>NSG 631</td>
<td>Care Delivery and Coordination II</td>
<td>4</td>
</tr>
<tr>
<td>NSG 672</td>
<td>Practicum II</td>
<td>3</td>
</tr>
<tr>
<td><strong>Semester 4</strong></td>
<td></td>
<td><strong>Credit Hours</strong></td>
</tr>
<tr>
<td>NSG 632</td>
<td>Coordinated Care of the Elderly</td>
<td>3</td>
</tr>
<tr>
<td>NSG 673</td>
<td>Practicum III</td>
<td>4</td>
</tr>
</tbody>
</table>

**Course Offerings**

**Nursing Department**

**NSG 510. Health Informatics for Advanced Practice Professionals. 2 credits.**

This course focuses on the nature, functions, present and future applications of clinical informatics. Emphasis is on preparing advanced practice professionals to utilize informatics for effective health care delivery, management, and organizational and client outcomes. The role of government regulations in clinical informatics is also explored.

**NSG 511. Epidemiology. 3 credits.**

This course provides an introduction to epidemiology as a body of knowledge and a method for analyzing community health problems. Emphasis is on measuring and describing the health of populations, the natural history of diseases in population groups, standardization of rates, sources of data, study designs, measurements of risk, and evaluation of screening tests.

**NSG 520. Advanced Health Assessment. 3 credits.**

This course provides advanced knowledge and skills in health assessment. Emphasis is placed on interviewing, history taking, physical assessment and diagnosis based on clinical findings. Variances of adolescent, adult, and older adult clients from diverse ethnic and cultural backgrounds are considered. Practice of advanced skills occurs in a clinical laboratory.
NSG 521. Advanced Concepts in Pathophysiology. 3 credits.

This course uses a systems approach to examine concepts in pathophysiology as a basis for advanced nursing practice. The course provides a comprehensive overview of etiology, pathogenesis, and clinical manifestation of disease. Special emphasis is placed on older adults.

NSG 522. Advanced Clinical Pharmacotherapeutics. 3 credits.

Building upon the knowledge of pharmacology learned at the undergraduate level, this course examines concepts in pharmacotherapeutics necessary for advanced nursing practice. Emphasis will be placed on pharmacokinetics and pharmacodynamics of important classes of drugs. Considerations for the aging client will be highlighted. Case studies will provide an opportunity for critical thinking, clinical application and care coordination.

NSG 523. Concepts in Aging. 3 credits.

This web-enhanced course is divided into 8 modules and examines the physiological, psychosocial, cultural, cognitive, legal, and ethical aspects of aging within a care coordination context. A focus area is the issues that surround the concepts of aging and how the ethical aspects of care relate to the utilization of resources. A service-learning project is required.

NSG 524/HTH 659. Health Care Environments. 3 credits.

Health Care Environments provides a conceptual model of the American health care system and an overview of the component parts of that system. The course will focus particularly on the context of health care management and delivery and emphasize available services for adult and elder Americans. This includes a theoretical framework for the current system as well as a delineation of the functions and roles of the major sectors of the U.S. health care system.

NSG 521. Research for the Advanced Health Professional. 3 credits.

This course will focus on study of research methods that generate quantitative and qualitative data. Students will examine the components of the research process and the interrelationships among these components in the study of nursing. Emphasis will be placed on student critique of research literature and student participation in the research process.

NSG 630. Care Delivery and Coordination I. 4 credits.

This course focuses on the evaluation, management, and coordination of care for adult clients with common acute health deviations in a variety of contexts. The course builds on knowledge and skills from advanced health assessment, pathophysiology, and
Academic Programs: Academic Units

pharmacology. Emphasis is placed on formulating diagnoses and developing plans of care that encompass clients, families, and community resources. Prerequisites or corequisites: NSG 520, NSG 521 and NSG 522.

**NSG 631. Care Delivery and Coordination II. 4 credits.**

This course focuses on the evaluation, management and care coordination for adult clients with common chronic health deviations across the adult lifespan within a variety of contexts. The course builds on knowledge and skills from health systems management, advanced health assessment, pathophysiology, pharmacology and ethics. Emphasis is placed on formulating diagnoses and developing plans of care that encompass clients, families and community resources. Prerequisites: NSG 630 and NSG 671.

**NSG 632. Coordinated Care of the Elderly. 3 credits.**

This course focuses on the health issues and needs of older adults and principles for evaluating, managing, and coordinating their care. Students will differentiate normal changes and symptoms of aging from disease-related symptoms, focusing on the achievement of optimal health and function for older adults. Emphasis is on the collaborative role of advanced practice nurses in assisting older adults and family caregivers from diverse ethnic and cultural backgrounds to negotiate health care delivery systems. Prerequisites or corequisites: NSG 523, NSG 631 and NSG 672.

**NSG 633. Theoretical Foundations and Roles in Advanced Practice Nursing. 3 credits.**

This course prepares students to analyze and utilize nursing theory as a basis for advanced nursing practice and research. The course will focus on historical and developmental aspects of advanced practice nursing, competencies and operational definitions of advanced practice nursing, and the continuing evolution of APN role.

**NSG 640. Curriculum Development in Nursing. 3 credits.**

This course investigates models, techniques and instructional strategies for constructing curricula and developing programs in health care settings, the community, continuing education and in collegiate settings. Instructional design processes, procedures, implementation, and evaluation are emphasized. Prerequisite: NSG 642.

**NSG 641. Curriculum Evaluation. 3 credits.**

This course focuses on the theory and practical application of the evaluation process for nursing education programs and health care systems. Test construction and measurement are featured and an emphasis is placed on evaluation of program goals, outcomes and evidence-based practice. Methods and processes in developing specific instruments for program evaluation, data collection and data analysis will be discussed. Prerequisite: NSG 640.
**NSG 642. Theoretical Foundations and Roles in Nursing Education. 1 or 3 credits.**

This course prepares students to analyze and utilize nursing theory as a basis for advanced nursing practice and research. Educational concepts, theories, issues, and strategies central to the role of nurse educator in academic, staff development, or client centered settings will be examined. This course can be taken for 1 credit by students enrolled in a post-master's certificate program.

**NSG 643. Technology in Nursing Education. 3 credits.**

This course provides students an opportunity to acquire knowledge and skills for using a variety of computer technologies to support the teaching-learning process in nursing. The course will discuss principles of distance learning, use of the Internet for teaching-learning, and how to integrate computer technologies into nursing curriculum. Emphasis will be given to theoretical frameworks that guide the selection, use, and integration of technology into nursing education programs. Prerequisite or corequisite: NSG 642.

**NSG 671. Practicum I. 2 credits.**

Emphasizes advanced practice role development of the adult/gerontological nurse practitioner, with a focus on complex and holistic care, health promotion and maintenance, and care coordination of older adults. Practicum highlights clinical competencies required for the advanced practice roles of clinician, manager, consultant, educator, and researcher. Prerequisite: NSG 520, NSG 521 and NSG 522, Corequisite: NSG 630 and NSG 633.

**NSG 672. Practicum II. 3 credits.**

Emphasis will be placed upon the application of clinical skills, theories, concepts, issues, and research findings to the clinical care of adolescents, adults, and older adults. Care coordination issues will be addressed as they specifically impact diverse populations in all care settings. Clinical competencies will be emphasized to prepare the student for adult and gerontological nurse practitioner certification. This course will use clinical preceptors as well as faculty. Prerequisite: NSG 631 and NSG 671.

**NSG 673. Practicum III. 4 credits.**

Continues emphasis on the application of clinical skills, theories, concepts, issues, and research findings to the clinical care of adults/older adults. Care coordination issues will be addressed as they specifically impact the adult population in all care settings. Clinical competencies required for adult and gerontological nursing will be emphasized. This course will use clinical preceptors as well as faculty. Prerequisite: NSG 632 and NSG 672.

**NSG 674. Education Residency I. 3 credits.**
Students apply theories of education to the development of teaching objectives, courses, and syllabi under faculty and preceptor guidance. A variety of assigned teaching practice settings afford the opportunity for students to develop competence with different teaching methods. Prerequisites or corequisites: NSG 520, NSG 521, NSG 522, NSG 640 and NSG 642

**NSG 675. Education Residency II. 4 credits.**

Students demonstrate successful integration of theory with practice and synthesis of knowledge and skills in a selected teaching practice setting under faculty and preceptor guidance. Students practice and develop competence with a variety of advanced teaching methods. Students will engage in various forms of educational evaluation. Prerequisite: NSG 674.

**NSG 696. Dual Certification Practicum. 3 credits.**

Continues emphasis on the application of skills, theories, concepts, issues and research findings to the clinical care of adults or older adults in age ranges appropriate for the selected track the student has chosen for dual certification. Care coordination issues will be addressed. Clinical competencies required for adult and/or gerontological nursing will be emphasized. This course will use clinical preceptors as well as faculty.

**NSG 697. Directed Study. 2 credits.**

This course is designed to provide opportunities for professional role development and growth through the completion of a research or scholarly project relevant to advanced practice nursing or education. The project will focus on the specific professional goals of each student. Topic approval must be granted by study adviser. Prerequisite: NSG 611.

**NSG 700. Thesis. 5 credits.**

The thesis project is an empirical research project that makes a scholarly contribution to the current body of nursing knowledge. The final thesis is a written interpretation of facts and opinions gained through critical reading and independent research. The thesis project spans at least two program semesters. Prerequisite: NSG 611.
Graduate Psychology

Phone: (540) 568-6439
Web site: http://www.psyc.jmu.edu/

Dr. Sheena Rogers, Department Head

Dr. Lennis G. Echterling, Program Director
Community Counseling Program, School Counseling Program

Dr. James McConnel, Program Co-Director

Ms. Donna Harper, Program Co-Director
College Student Personnel Administration Program

Dr. Craig N. Shealy, Program Director
Combined-Integrated (C-I) Doctoral Program In Clinical and School Psychology

Dr. Sherry L. Serdikoff, Interim Program Director
Psychological Sciences Program

Dr. Patricia J. Warner, Program Director
School Psychology Program

Dr. Donna L. Sundre, Program Director

Doctoral Program In Assessment and Measurement

Department of Graduate Psychology
Professors


Associate Professors

E. Cowan, C. DeMars, T. Gilligan, R. Staton, A. Trice

Assistant Professors


Department of Psychology

Professors

S. Baker, J. Benedict, S. Evans, P. Gibson, A. Kahn, M. Stoloff

Associate Professors

K. Apple, K. Barron, W. Evans, S. Lovell, S. Serdikoff, C. Talley

Assistant Professors

M. Hall, N. Kerr, A. Nasim, M. Reis-Bergan, Z. Serpell

Application Dates

Refer to individual programs for application requirements.

Assessment and Measurement

Fall Semester: February 1

College Student Personnel Administration

Fall Semester: March 1
All application forms and supporting materials are due at this time. The program begins reviewing applications February 1 and will give preference to applications received by that date.

**Combined-Integrated Clinical and School Psychology**

Fall Semester: February 1

**Psychological Sciences**

Fall Semester: February 1

All application forms and supporting materials are due at this time. The program begins reviewing completed applications in February.

**School Counseling and Community Counseling**

Fall Semester: February 15

The program will give preference to applications received by that date. The committee conducts screening interviews in late February and early March.

**School Psychology**

Fall Semester: February 15

The program will give preference to applications received by that date. The committee conducts screening interviews during March.

**Mission**

The Department of Graduate Psychology creates a challenging and supportive environment that transforms students into scholars and practitioners of psychology, and celebrates the diversity and talents of all.

**Overview**

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.

**Psychological Sciences**
Academic Programs: Academic Units

**Psychological Sciences (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 (Ph.D.)

**Student Personnel**

College Student Personnel Administration (M.Ed.) 36 credits

**Combined-Integrated Doctoral Program**

Clinical and School Psychology (Psy.D.)

**Psychological Sciences Program**

Dr. Sherry L. Serdikoff, Interim Director

**Admission Requirements**

- Completion of a baccalaureate degree with a satisfactory grade point average
- Undergraduate course work in psychology, including at least one statistics and one 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 statement of research interests, goals for graduate study and beyond, and how the Psychological Sciences program will help achieve these goals.

**Mission**

The mission of the Master of Arts in Psychological Sciences program is to provide advanced training in empirical research in the Psychological Sciences.
Description

The program prepares students for further training at the doctoral level, and for immediate employment in research settings. At the core of the program is a sequence of courses in statistics, measurement, and research design, a research apprenticeship, and a thesis. This core allows students to develop the skills needed to advance their understanding of topics in the psychological sciences through completion of empirical research, professional presentations and publication. Students develop expertise in a specialty area through selected coursework and a closely mentored research experience with a faculty adviser.

### Psychological Sciences Master of Arts Degree

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Minimum Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>Statistics and Measurement</td>
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</tr>
<tr>
<td>PSYC 605. Research and Inferential Statistics</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 606. Advanced Measurement Theory</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 608. Multivariate Statistical Methods in Psychology</td>
<td>3</td>
</tr>
<tr>
<td><strong>Advanced Principles and Theories</strong></td>
<td>12</td>
</tr>
<tr>
<td>Area A (select two of the following):</td>
<td></td>
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<tr>
<td>PSYC 612. Advanced Personality Theory</td>
<td></td>
</tr>
<tr>
<td>PSYC 616. Advanced Social Psychology</td>
<td></td>
</tr>
<tr>
<td>PSYC 618. Social and Emotional Development</td>
<td></td>
</tr>
<tr>
<td>PSYC 622. Advanced Abnormal Psychology</td>
<td></td>
</tr>
<tr>
<td>Area B (select two of the following):</td>
<td></td>
</tr>
<tr>
<td>PSYC 610. Advanced Learning Theories</td>
<td></td>
</tr>
<tr>
<td>PSYC 611. Advanced Comparative Psychology</td>
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</tbody>
</table>
PSYC 613. Advanced Cognitive Psychology

PSYC 617. Advanced History of American Psychology

PSYC 619. Cognitive Development

PSYC 624. Advanced Physiological Psychology and Psychopharmacology

Thesis 6

PSYC 700. Thesis

Elective courses (adviser approval required) 9

36

Before the Department of Graduate Psychology recommends students for graduation, they must have a successful review by the Master of Arts in Psychological Sciences Program Committee.

In addition to course work all students in the Psychological Sciences program are required to complete a Research Apprenticeship during the first two semesters and attend the weekly Research Roundtable series every semester. The Research Apprenticeship and Research Roundtable requirements do not carry course credit but expose students to a range of research topics and methodologies in psychological science. Both requirements expose students to activities that are an integral part of being a productive member of a scientific community early in their graduate training, which facilitates successful development and completion of the thesis. In addition to a written thesis students are required to pass a comprehensive examination consisting of an oral presentation and defense of the thesis research.

Only six credit hours of PSYC 700 may be used to satisfy the program’s credit hour requirements. Once accepted into the program the student must continue to enroll in at least 1 credit hour each semester until the comprehensive examination has been passed and the thesis has been accepted by the student’s faculty committee and the College of Graduate and Professional Programs.

School Psychology Program

Dr. Patricia J. Warner, Graduate Director
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
- satisfactory scores on the general portion of the GRE
- a personal interview with faculty and students
- a personal statement
- three letters of recommendation from professionals familiar with the applicant's potential for graduate education
- transcripts from all undergraduate and graduate programs attended.

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 related master's degree from another institution will be required to provide three references and to participate in the interview process.

Mission

The school psychology program promotes the role of the school psychologist as a developer of an individual's 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, intervention, consultation, counseling and applied research.

The program is designed to prepare students for employment in a variety of settings including schools, mental health clinics, hospitals, and other clinical and educational 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).

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 Virginia Board of Psychology for sub-doctoral licensure as school psychologists.
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.

Priority will be given to applications received by February 15 for fall admission. Interviews are scheduled in March, and applicants are notified of admission decisions shortly after the interview.

### School Psychology Master of Arts Degree Requirements

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Requirements 1</td>
<td></td>
</tr>
<tr>
<td>PSYC 525. Role and Function of the School Psychologist</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 527. Psychological Foundations of Education</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 605. Research and Inferential Statistics</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 606. Advanced Measurement Theory</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 618. Social and Emotional Development</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 626. Advanced Developmental Psychopathology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 661. Counseling Techniques</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 674. Assessment I.</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 695. Practicum in School Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 749. Multicultural Perspectives of Intervention</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 777. Assessment II.</td>
<td>3</td>
</tr>
</tbody>
</table>

1 Before the Department of Graduate Psychology recommends students for graduation, they must have a successful review by the School Psychology Program Committee.

### School Psychology Educational Specialist Degree Requirements

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Requirements</td>
<td></td>
</tr>
<tr>
<td>PSYC 609. Applied Research Methods</td>
<td>3</td>
</tr>
</tbody>
</table>
PSYC 750. Consultation and Intervention Techniques 3
PSYC 751. Psychotherapy with Children and Adolescents 3
PSYC 755. Cognitive and Behavioral Interventions 3
PSYC 778. Advanced Practicum in School Psychology 6
PSYC 779. Assessment III 3
PSYC 790. Internship in School Psychology 9
PSYC 800. Educational Specialist Research Project\(^1\) 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

Students must complete all program requirements to be recommended for certification or licensure. Certain courses may be waived or substituted with adviser approval.

1 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) until the project is completed.

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**Community Counseling Program**

**Dr. Lennis G. Echterling, Graduate Director**

**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
# Mission

As members of the Community Counseling Program of James Madison University, we have formed our own special community of faculty, staff, and students. We vary in abilities, age, class, gender, ethnicity, race, religion, sexual orientation, and place of birth, but we share a common vision of achieving a vitally important mission – transforming students into successful community counselors.

Our community counseling alumni are dedicated to providing competent, caring, and ethical services to diverse clients in public agencies, community programs, and private practices. Putting our principles into practice, we strive to create a caring community in which we can thrive personally and grow professionally. While many of our graduates work in rural communities in Virginia’s Shenandoah Valley or among the mountains of West Virginia, many more have moved on to serve in other communities throughout the mid-Atlantic region, and across the nation. We invite our students to embark on a life-long journey of exploring new possibilities, refining their skills, and staying fresh throughout their careers. We encourage them to support one another in the formidable task of facilitating the change process in individuals, couples, families, groups, and communities as licensed professional counselors. Finally, we challenge our graduates to advance the community counseling profession through service, research, innovation, advocacy, and training.

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.

## Community Counseling Educational Specialist Degree Requirements

<p>| Minimum Requirements | Credit Hours |</p>
<table>
<thead>
<tr>
<th><strong>Common Core</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Statistics and Measurements</strong></td>
</tr>
<tr>
<td>PSYC 600. Measurement and Statistics</td>
</tr>
<tr>
<td>PSYC 607. Assessment Procedures in</td>
</tr>
<tr>
<td>Counseling</td>
</tr>
<tr>
<td><strong>Principles and Theories of Psychology</strong></td>
</tr>
<tr>
<td>PSYC 614. Advanced Developmental</td>
</tr>
<tr>
<td>Psychology</td>
</tr>
<tr>
<td>PSYC 685. Psychopathology: Diagnosis</td>
</tr>
<tr>
<td>and Intervention Planning</td>
</tr>
<tr>
<td><strong>Research Project/Thesis</strong></td>
</tr>
<tr>
<td><strong>Choose one of the following:</strong></td>
</tr>
<tr>
<td>PSYC 800. Educational Specialist</td>
</tr>
<tr>
<td>Project¹</td>
</tr>
<tr>
<td>PSYC 700. Thesis (Note: Thesis option</td>
</tr>
<tr>
<td>requires an additional 3 credit hours.)</td>
</tr>
<tr>
<td><strong>Other Required Courses</strong></td>
</tr>
<tr>
<td>PSYC 630. Community Counseling</td>
</tr>
<tr>
<td>PSYC 660. Counseling Theories</td>
</tr>
<tr>
<td>PSYC 661. Counseling Techniques</td>
</tr>
<tr>
<td>PSYC 663. Substance Abuse Counseling</td>
</tr>
<tr>
<td>PSYC 664. Counseling Process</td>
</tr>
<tr>
<td>PSYC 665. Group Counseling</td>
</tr>
<tr>
<td>PSYC 668. Couple and Family Systems</td>
</tr>
</tbody>
</table>
Academic Programs: Academic Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 669</td>
<td>Career Development</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 695</td>
<td>Practicum in Counseling</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 710</td>
<td>Counseling Strategies: Special Topics</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 749</td>
<td>Multicultural Perspectives of Intervention</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 760</td>
<td>Consultation and Supervision for Counselors</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 790</td>
<td>Internship in Community Counseling</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Elective courses (adviser approval required)</td>
<td>3</td>
</tr>
</tbody>
</table>

1 Only three 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) until the project is completed.

School Counseling Program

Dr. Lennis G. Echterling, Graduate Director

Admission Requirements

Minimum admission 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, psychology, or related behavioral sciences
- a personal interview and a screening session with the program committee

Mission

The School Counseling Program of James Madison University is a learning community of faculty, staff, and students who vary in abilities, age, class, gender, ethnicity, race, religion, and sexual orientation. Coming together from a variety of geographic areas, we share a common vision of achieving a vitally important mission – training students to become successful school counselors.

Our alumni are dedicated to providing competent, caring, and ethical services to diverse students in public and private schools. Putting our principles of school counseling into practice, we strive to create an academic community in which our students can thrive personally and grow professionally. While many of our graduates play vital roles in schools...
along Virginia’s Shenandoah Valley or among the mountains of West Virginia, many more have moved on to serve in rural, suburban, and urban schools throughout the mid-Atlantic region, and across the nation. We invite our students to embark on a life-long journey of exploring new possibilities, refining their skills, and staying fresh throughout their careers. We encourage them to support one another in the formidable task of making a difference in students’ lives by meeting their emotional, social, educational, and career development needs as licensed or certified school counselors. Finally, we challenge our graduates to advance the school counseling profession through service, research, innovation, advocacy, and training.

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.

<table>
<thead>
<tr>
<th>School Counseling Educational Specialist Degree Requirements</th>
<th>Minimum Requirements</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>Minimum Requirements</td>
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<tr>
<td>Common Core</td>
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<tr>
<td>Statistics and Measurements</td>
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<tr>
<td>PSYC 600. Measurement and Statistics</td>
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</tr>
<tr>
<td>PSYC 607. Assessment Procedures in Counseling</td>
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<td>3</td>
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<tr>
<td>Principles and Theories of Psychology</td>
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<tr>
<td>PSYC 614. Advanced Developmental Psychology</td>
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<tr>
<td>Research Project/Thesis:</td>
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Choose one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PSYC 800</td>
<td>Educational Specialist Research Project¹</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 700</td>
<td>Thesis (Note: Thesis option requires an additional 3 credit hours.)</td>
<td></td>
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</tbody>
</table>

**Other Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PSYC 626</td>
<td>Advanced Developmental Psychopathology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 640</td>
<td>School Counseling</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 643</td>
<td>Advanced School Counseling</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 660</td>
<td>Counseling Theories</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 661</td>
<td>Counseling Techniques</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 663</td>
<td>Substance Abuse Counseling</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 664</td>
<td>Counseling Process</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 665</td>
<td>Group Counseling</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 669</td>
<td>Career Development</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 695</td>
<td>Practicum in Counseling</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 710</td>
<td>Counseling Strategies: Special Topics</td>
<td>3</td>
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<tr>
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</tr>
<tr>
<td>PSYC 790</td>
<td>Internship in School Counseling</td>
<td>6</td>
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**Elective courses (adviser approval required)**

<table>
<thead>
<tr>
<th>Credits</th>
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<tbody>
<tr>
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<tr>
<td>60</td>
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</tbody>
</table>

¹ Only three 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).

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**College Student Personnel Administration Program**

**Dr. James McConnel, Graduate Co-Director**

**Ms. Donna Harper, Graduate Co-Director**

**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

Mission

The mission of the College Student Personnel Administration program is to prepare students to be educated and enlightened professionals who will lead productive and meaningful careers, and to advance the profession of 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 subcultures 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.

<table>
<thead>
<tr>
<th>College Student Personnel Administration Master of Education Degree Requirements</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>Minimum Requirements</td>
<td></td>
</tr>
<tr>
<td>AHRD 670. American Higher Education</td>
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<tr>
<td>PSYC 600. Introduction to Measurement and Statistics</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 645. Student Personnel Services</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 646. American College Student</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 649. Professional Issues in Student Personnel</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 650. Organization and Administration of Student Services</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 651. Supervision and Consultation Processes in Student Personnel</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 660. Counseling Theories</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 661. Counseling Techniques</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 665. Group Counseling</td>
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</table>
Academic Programs: Academic Units

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<tr>
<th>Course Code</th>
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<td>PSYC 695</td>
<td>Field Practicum in Student Personnel Administration</td>
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<tr>
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<td>Select one of the following:</td>
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</tr>
<tr>
<td>PSYC 669</td>
<td>Career Development</td>
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<tr>
<td>PSYC 680</td>
<td>Independent Study</td>
<td></td>
</tr>
<tr>
<td>PSYC 749</td>
<td>Multicultural Perspectives of Intervention</td>
<td></td>
</tr>
</tbody>
</table>

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College Student Personnel Certificate Program

The certificate program accepts students who have earned a master’s degree in a discipline other than higher education/student personnel services. Students admitted to the program are required to complete four courses. Upon completion of four higher education/student personnel courses (chosen in concert with an adviser) a student will receive a certificate of completion.

Students must complete four courses (12 credit hours) from the list of existing courses:

- PSYC 645. Student Personnel Services
- PSYC 646. American College Student
- PSYC 649. Professional Issues in Student Personnel
- PSYC 650. Organization and Administration of Student Services
- PSYC 651. Supervision and Consultation in Student Personnel
- PSYC 661. Counseling Techniques
- AHRD 670. American Higher Education

Assessment and Measurement Doctoral Program

Dr. Donna L Sundre, Graduate Director

Admission 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 writing)
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 or research
Personal interview
Previous graduate or postgraduate professional experience in assessment-related activities

Mission

The Doctor of Philosophy 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 Ph.D. 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, cognitive psychology, and professional communication. 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. 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.

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.

| Assessment and Measurement Doctoral Program | 
| Degree Requirements | 
| 
| Foundations in Psychology Courses | 
| Research and Inferential Statistics | 
| Measurement Theory | 
| Multivariate Statistics | 
| Cognitive | 
| 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 Gen. 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 | 
| PSYC 772. Professional Communication in Psychology | 3 | 
| Required Research Experiences | 
| PSYC 879. Doctoral Assessment Practicum | 6 | 
| PSYC 891. Doctoral Assessment Internship | 6 | 
| PSYC 900. Doctoral Dissertation | 9 | 
| | 57 |
Combined-Integrated (C-I) Doctoral Program in Clinical and School Psychology

Dr. Craig N. Shealy, Graduate Director

Admission Requirements

Admission to the combined doctoral program requires that applicants:

- have completed an advanced degree (M.A./M.S. or Ed.S.) in clinical, school, or counseling psychology, or related field;
- provide general GRE scores (verbal, quantitative and analytic) and advanced Psychology GRE scores (previous GRE scores may be accepted);
- submit a typed statement of professional goals;
- submit three letters of recommendation from professionals familiar with their academic work and any relevant professional experiences;
- submit transcripts from all undergraduate and graduate programs attended;
- submit representative work samples of current 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 and March. All applicants are notified of admission decisions no later than March 15. Students offered admission are expected to reply no later than April 1.

Mission

The mission of the JMU Combined-Integrated (C-I) Doctoral Program in Clinical and School Psychology is to provide a broad preparation in psychology, integrating practice and science in order to expand, strengthen and deepen the training of advanced mental health professionals. The specific focus of the program is the development of those competencies that will prepare graduates to serve as leaders and advocates in the delivery of mental health services. These services are directed primarily to the development of human potential in children and families. An important element in the mission of the Combined-Integrated Doctoral Program at JMU is to train doctoral students to be responsive to the needs of children and families within the context of a diverse society.

The rationale for the JMU C-I Doctoral Program is based on the conviction that the mental health needs of children and families are underserved, particularly in rural areas. These needs are best met by an integrated curriculum composed of selected principles from the specialty areas of child-clinical, counseling, and school psychology (Culbertson, 1993; Minke & Brown, 1996). This preparation addresses the skills and abilities needed by
psychologists to meet the mental health needs of children and families, keeping in mind the various ecological contexts in which such psychologists will interact.

The rationale for the program is supported by needs expressed in extensive surveys of mental health professionals conducted in 1985 and 1992 in preparation for the C-I Doctoral Program. Both surveys indicated substantial need and the desire to have a C-I Doctoral Program that focused on the mental health needs of children and families.

The C-I doctoral program in clinical and school psychology is an innovative, applied psychology program that leads to the awarding of the Doctorate of Psychology degree and eligibility for licensure as a psychologist. The doctoral program is fully accredited by the American Psychological Association. 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.

The doctoral program functions on a calendar-year schedule. Students begin in the fall semester and continue throughout the year, including summer semesters. Depending upon their background, students complete the course work portion of the program in either two or three years. Students must also complete a year-long internship and a doctoral dissertation. Internships must be approved by the American Psychological Association or meet the standards set forth by APA.

A limited number of full-time students are admitted each year. All students receive a full-time teaching or graduate assistantship that includes tuition.

The C-I program exhibits strong commitment to diversity in the following ways:

- a required course specific to multicultural issues
- multicultural/gender issues covered in course work throughout the curriculum
- practical experiences with clients from a variety of cultures and backgrounds

**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.

Previous graduate course work may be accepted to meet required psychological foundations courses. A minimum of 59 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

<table>
<thead>
<tr>
<th>Combined-Integrated (C-I) Doctoral Program in Clinical and School Psychology Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 668. Couple and Family Systems</td>
</tr>
<tr>
<td>PSYC 695. Practicum in College Teaching</td>
</tr>
<tr>
<td>PSYC 825. Doctoral Seminar in Professional Psychology</td>
</tr>
<tr>
<td>PSYC 826. Advanced Seminar in Developmental Psychopathology</td>
</tr>
<tr>
<td>PSYC 852. Advanced Consultation and Supervision</td>
</tr>
<tr>
<td>PSYC 864. Advanced Individual Psychotherapy</td>
</tr>
<tr>
<td>PSYC 877. Advanced Seminar in Child and Family Assessment</td>
</tr>
<tr>
<td>PSYC 878. Doctoral Practicum in Child and Family Psychological Services</td>
</tr>
<tr>
<td>PSYC 881. Issues and Techniques in Research and Evaluation</td>
</tr>
<tr>
<td>PSYC 890. Doctoral Internship in Child and Family Psychological Services (12 months)</td>
</tr>
<tr>
<td>PSYC 900. Doctoral Dissertation</td>
</tr>
</tbody>
</table>

See C-I Program Web site at [http://www.psysc.jmu.edu](http://www.psysc.jmu.edu) for doctoral core curriculum updates.
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 the organization and operation of public schools and the educational and mental health practice 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 604. Computer Assisted Data Management and Analysis. 3 credits.
Provides an introduction to the management and analysis of data using statistical software packages. Emphasis is placed on planning data files, performing basic data transformations and statistical analyses, and transferring data across software programs. Prerequisite: Completion of an undergraduate or graduate introductory statistics course and permission of instructor.

PSYC 605. Research and Inferential Statistics. 3 credits.
Academic Programs: Academic Units

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 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 618. Social and Emotional Development. 3 credits.
An examination of how developmental psychologists collect and interpret data; how theory guides research and practice. Topics include: early determinants of behavior; identity development; prosocial and antisocial behavior; family, peers, and schools. Exemplars, such as attachment, are used to show how research, theory, culture, and clinical practice shape a topical area. Prerequisite: Permission of the instructor.

PSYC 619. Cognitive Development. 3 credits.
This course examines the characteristics of and processes through which thinking changes with development. Important research paradigms and theoretical perspectives, as well as various practical implications of related research will be explored. Topics include perception, memory, language, reasoning, individual differences, academic skills, and selected applied topics.

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 experiential 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 from 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. Assessment I. 3 credits.
Students develop proficiency with administration, interpretation and reporting results of current cognitive ability measures and the issues 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 director 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.

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. 3-6 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 counseling, 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 contraindications, 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. Prerequisite: Permission of the instructor.

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.

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 and 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,
and their families in educational and mental health settings.

**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 772. Professional Communication in Psychology. 3 credits.**

Focuses on the nature of human communication behavior and theory and addresses how these theories apply to professional communication in psychology. Topics to be discussed include: public address, small group communication, organizational communication, conflict management, negotiation and interpersonal communication. Prerequisite: Permission of instructor.

**PSYC 777. Assessment II. 3 credits.**

An advanced laboratory course for students in school psychology. Covers comprehensive evaluation of domains and abilities which relate to academic success. 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. Assessment III. 3 credits.

Advanced students achieve basic understanding and competency in the administration and interpretation of personality assessment procedures most frequently used in school settings with children and adolescents. Enrollment is limited to allow individualized instruction and supervision. Prerequisites: PSYC 606, 674, and 777 or permission of instructor.

PSYC 790. Internship. 3-6 credits.

Provides a student with a supervised field experience. Students should contact their program director for specifics concerning the internship experience. Course will be graded on an S/U basis. Prerequisite: Permission of program director.


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. 1-3 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 director.

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 840. Qualitative Research Design and Analysis. 3 credits.**

This course is designed to give students an introduction to the philosophical, conceptual, and practical basis of qualitative research. Provides an introduction to all phases of qualitative research design, developing research questions, doing data collection and analysis and writing a qualitative research proposal. Prerequisite: Permission of instructor.

**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 876. Personality Assessment. 3 credits.**

Students achieve a basic understanding and competency in the administration and interpretation of personality assessment procedures for children, adolescents and adults across a variety of settings. Issues of nondiscriminatory multicultural assessment will also be addressed. Prerequisite: Permission of Instructor.

**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. Doctoral 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. 1 - 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 895. Doctoral Practicum in College Teaching. 1-3 credits.**

This practicum course provides instruction, modeling, and supervision in teaching college or professional level learners. Students will teach undergraduate courses in psychology and/or make professional presentations, receiving feedback and supervision from the instructor. Prerequisites: Master's degree and permission of instructor.

**PSYC 899. Dissertation Continuance. 1 - 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

Phoe: (540) 568-6149

Web site: http://www.jmu.edu/polisci/mpa.html

Dr. Kay Knickrehm, Department Head

Dr. B. Douglas Skelley, Graduate Coordinator

Professors
R. Roberts, D. Skelley

Assistant Professor
V. Jordan, G. Kirk

Admission

The Graduate Record Examination or the Graduate Management Admission Test is required of all applicants for the Master of Public Administration program as well as strong undergraduate grades. Applicants should consult with the M.P.A. coordinator concerning admission standards.

Mission

Through research, skill development, and advanced study of public organizations, politics, and the law, the Master of Public Administration program strives to enhance the effectiveness of public employees and aspiring public employees for work in government, nonprofit, and private, government-contracting organizations.

Goals

Through offering the Master of Public Administration, the recognized professional degree in
public administration, the program strives to:

- enhance the administrative knowledge and skills of those already employed as professionals in government, nonprofit organizations and firms that deal extensively with government.
- prepare "pre-service" students, especially those with undergraduate degrees that have public sector applicability, with its internship component.

Master of Public Administration

The Master of Public Administration degree requires 36 credit hours of course work and 6 credits of internship. The internship 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, human resource administration, program and policy evaluation, budgeting, and relevant law. There are two defined concentrations: health administration and public sector communication. 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 online courses. Students should be aware, however, that the College of Graduate and Professional Programs 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.

In addition to a concentration, students who do not have a significant professional work background in administration/management are expected to complete a supervised internship with a public or nonprofit agency. The internship will support the student’s concentration. Successful performance on a comprehensive examination is required of all candidates for the M.P.A. degree. Information concerning the comprehensive examination can be obtained from the coordinator of the M.P.A. program.

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.
Students in the Master of Education program may minor in political science by completing 12 hours of political science or public administration courses.

<table>
<thead>
<tr>
<th>Master of Public Administration Degree Requirements</th>
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</thead>
<tbody>
<tr>
<td><strong>Core Curriculum</strong></td>
<td>Credit Hours</td>
</tr>
<tr>
<td>POSC 505. Research Design for Policy Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>PUAD 512. Seminar in Intergovernmental Relations</td>
<td>3</td>
</tr>
<tr>
<td>PUAD 515. Legal Environment of Public Administration</td>
<td>3</td>
</tr>
<tr>
<td>PUAD 606. Program Evaluation in Public Administration</td>
<td>3</td>
</tr>
<tr>
<td>PUAD 620 Seminar in the Politics of the Administrative Process</td>
<td>3</td>
</tr>
<tr>
<td>PUAD 625. Seminar in Public Management Issues</td>
<td>3</td>
</tr>
<tr>
<td>PUAD 641. Public Budgeting</td>
<td>3</td>
</tr>
<tr>
<td>MBA 650. Managing Human Resources</td>
<td>3</td>
</tr>
<tr>
<td>PUAD 696. Internship in Public Administration</td>
<td>6</td>
</tr>
<tr>
<td><strong>Concentrations (choose one)</strong></td>
<td>30</td>
</tr>
<tr>
<td><strong>Health Care Administration Concentration</strong></td>
<td></td>
</tr>
<tr>
<td>HTH 659. Health Care Environment</td>
<td>3</td>
</tr>
<tr>
<td>HTH 660. Health Economics</td>
<td>3</td>
</tr>
<tr>
<td>HTH 661. Financial Administration of Health Service Organizations</td>
<td>3</td>
</tr>
<tr>
<td>HTH 669. Modern Health Care Administration</td>
<td>3</td>
</tr>
<tr>
<td><strong>Public Sector Communication Concentration</strong></td>
<td>12</td>
</tr>
<tr>
<td>Choose one of two:</td>
<td></td>
</tr>
<tr>
<td>TSC 510. Seminar in Technical and Scientific Communication</td>
<td>3</td>
</tr>
<tr>
<td>TSC 520. Technical and Scientific Communication for Nonnative Speakers of English</td>
<td></td>
</tr>
<tr>
<td>TSC 530. Research Methods in Technical and Scientific Communication</td>
<td>3</td>
</tr>
<tr>
<td>TSC 540. Technical and Scientific Editing</td>
<td>3</td>
</tr>
</tbody>
</table>
Academic Programs: Academic Units

Choose one of three:  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSC 625</td>
<td>Government Writing</td>
<td>3</td>
</tr>
<tr>
<td>TSC 640</td>
<td>Proposal and Grant Writing</td>
<td></td>
</tr>
<tr>
<td>TSC 650</td>
<td>Electronic and Online Publication</td>
<td></td>
</tr>
</tbody>
</table>

Individualized Concentration

Four graduate courses selected in consultation with the M.P.A. coordinator 12

Total Credits 42

Five-Year Degree Program

The five-year plan offers a program for the JMU undergraduate that, if the student performs satisfactorily, leads to the M.P.A. in five years—four undergraduate years and one graduate year of study. The five-year M.P.A. requires 30 graduate credits in academic course work. A student interested in the five-year M.P.A. should meet with the M.P.A. coordinator early in the sophomore year and complete a Five-Year Degree Application. At this time, the student and the M.P.A. 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 M.P.A. coordinator. The student should meet with the M.P.A. coordinator periodically to review the plan and modify as appropriate.

Students entering the five-year M.P.A. 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 “Reserve Graduate Credit) while still undergraduates. Students wishing to continue in the program must earn a 3.0 (B) grade point average or better in those courses.

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
The student must formally apply for acceptance into the graduate M.P.A. 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) or Graduate Management Admission Test (GMAT) scores for review. The student may also submit recommendations from two James Madison University faculty members. The M.P.A. 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 acceptable GRE or GMAT scores and earn a B or higher on the three reserve graduate courses taken during the student's fourth year of undergraduate study.

<table>
<thead>
<tr>
<th>Five-Year Recommended Schedule</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate Curriculum</td>
<td></td>
</tr>
<tr>
<td><strong>Freshman or Sophomore Year</strong></td>
<td></td>
</tr>
<tr>
<td>GPOSC 225. U.S. Government</td>
<td>4</td>
</tr>
<tr>
<td>PUAD 265. Public Administration</td>
<td>3</td>
</tr>
<tr>
<td><strong>Sophomore Year</strong></td>
<td></td>
</tr>
<tr>
<td>POSC 295. Research Methods</td>
<td>4</td>
</tr>
<tr>
<td><strong>Sophomore or Junior Year</strong></td>
<td></td>
</tr>
<tr>
<td>POSC 302. State and Local Government</td>
<td>3</td>
</tr>
<tr>
<td>PUAD 381. Public Budgeting</td>
<td>3</td>
</tr>
<tr>
<td><strong>Junior Year</strong></td>
<td></td>
</tr>
<tr>
<td>MGT 365. Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td><strong>Junior or Senior Year</strong></td>
<td></td>
</tr>
<tr>
<td>POSC 405. Seminar in American Government</td>
<td>3</td>
</tr>
<tr>
<td>PUAD 415. Legal Environment of Public Administration</td>
<td>3</td>
</tr>
</tbody>
</table>
Concentration

The student should do sufficient work in the area of concentration to qualify for graduate courses in that chosen area (See individual concentration listings for specific credit information).

3 or more

Total Undergraduate Credits

29 or more

**Reserve Graduate Courses**

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 College of Graduate and Professional Programs in the usual manner.

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 M.P.A. 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 M.P.A. coordinator and the dean of the College of Graduate and Professional Programs prior to enrollment. The student should apply for permission during the junior year. The student should complete the following three courses.

<table>
<thead>
<tr>
<th>Reserve Graduate Credit Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall of Senior Year</strong></td>
<td></td>
</tr>
<tr>
<td>PUAD 620. Seminar in the Politics of the Administrative Process</td>
<td>3</td>
</tr>
<tr>
<td><strong>Spring of Senior Year</strong></td>
<td></td>
</tr>
<tr>
<td>PUAD 641. Public Budgeting</td>
<td>3</td>
</tr>
<tr>
<td>PUAD 625. Seminar in Public Management Issues</td>
<td>3</td>
</tr>
<tr>
<td>Total Reserve Graduate Credits</td>
<td>9</td>
</tr>
</tbody>
</table>
Financial Assistance

A limited number of graduate assistantships are available on 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. Douglas Skelley, M.P.A. Coordinator
skellebd@jmu.edu

Dr. Kay Knickrehm, Chair, Political Science Department
knic.krm@jmu.edu
Course Offerings

Public Administration

PUAD 505. 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 512. Seminar in Intergovernmental Relations. 3 credits.
Intensive examination of the dynamics of the federal system including the political, administrative, and fiscal relationships among the various American governments. Grant writing will be addressed.

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 583. Emerging Issues in Public Administration. 3 credits.
A detailed, research-oriented study of an emerging issue in public administration. The course will examine new or emerging topics in the public administration profession with extensive readings and research focused on the contemporary academic and professional literatures. The course may be repeated for credit with a change in subject matter. Prerequisite: Permission of instructor.

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 505 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 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.
Technical and Scientific Communication

Phone: (540) 568-8018

Website: http://www.jmu.edu/tsc/

Dr. Alice I. Philbin, Director and Graduate Coordinator, Department Head

Professors
M. Hawthorne, A. Philbin

Associate Professor
E. Pass

Institute Fellow
W. Voige

Admission

In addition to satisfying all admission requirements of the JMU College of Graduate and Professional Programs, 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 College of Graduate and Professional Programs by May 31 for fall semester and August 31 for spring semester.

Application forms for admission and assistantships are available online from the College of Graduate and Professional Programs at [http://www.jmu.edu/cgop/prospective](http://www.jmu.edu/cgop/prospective).

**Mission**

The Institute of Technical and Scientific Communication offers programs that combine training and education to prepare students for information management.

The central mission of the TSC programs is to enable graduates to grow as professionals and, ultimately, to contribute to the developing field of technical and scientific communication.

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 communication management.
- 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.

**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 or 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
Degree Requirements

Students in the Master of Arts program must successfully complete three core courses (nine credit hours), a technical communication internship (three credit hours), two courses of thesis hours (six credit hours), and six courses of TSC electives (18 credit hours).

Students in the Master of Science program must successfully complete three core courses (nine credit hours), a technical communication internship (three credit hours), two courses of thesis hours (six credit hours), three courses in an approved technical or scientific cognate discipline (nine credit hours), and three courses of TSC electives (nine credit hours).

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 or TSC 701, Practicum. 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 nine 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 cognate discipline department and the director of the TSC Institute. Students who want to take course work in a cognate discipline 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 cognate discipline 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 College of Graduate and Professional Programs allows up to nine credit hours of transferred course work to count toward a student's graduate degree at JMU.

**Thesis/Practicum**

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).

It is important that the student understand that he/she is solely responsible for the success of the thesis/practicum. The student needs to be in charge of completing all paperwork for ITSC, CGOP, Registrar, etc., and for meeting all deadlines to matriculate successfully. The student will need to contact these offices well ahead of the semester in which he/she plans to graduate to ensure that all deadlines can and will be met.

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<thead>
<tr>
<th>Master of Arts Degree Requirements</th>
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<tbody>
<tr>
<td>Course Requirements</td>
<td>Credit Hours</td>
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<td>Thesis or Practicum</td>
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### Academic Programs: Academic Units

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<tbody>
<tr>
<td>TSC 700.</td>
<td>Thesis</td>
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<td>TSC 701.</td>
<td>Practicum</td>
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Choose at least six of the following: 18

<table>
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<tr>
<td>TSC 545.</td>
<td>Ethical and Legal Issues in Technical and Scientific Communication</td>
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<td>Medical Writing</td>
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<td>TSC 640.</td>
<td>Proposal and Grant Writing</td>
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### Course Offerings

#### 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.

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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.
**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. Prerequisite: TSC 510 (or TSC 520), or TSC 510 and TSC 530 may be taken concurrently.

**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.
Academic Programs: Academic Units

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
Academic Programs: Academic Units

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.**

Publisher:
College of Graduate and Professional Programs
MSC 6702, Harrisonburg, VA 22807

For more information contact:
JMU Catalog Office at
ug-catalog@jmu.edu

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Privacy Statement
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 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.

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