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Mid-Ohio Valley Center..........................304-674-7200
South Charleston Campus.........................304-746-2500
Teays Valley Regional Center..................304-757-7223

Toll-Free Numbers and World Wide Web Sites

The Graduate Admissions Office has a toll-free telephone number for use by students anywhere in West Virginia. Complete information about Admissions and the Graduate College is available below:

Toll-free telephone number: 1-800-642-9842 (Graduate Admissions Office, South Charleston)
Website: www.marshall.edu/graduate
The Marshall University Graduate Catalog fulfills two primary functions:

1. The rules and regulations, policies and procedures of the University, its divisions and its governing body, all of which apply to all students, are contained in this document. These rules apply during the publication period of the document and are subject to change during that year upon recommendation of the various divisions and approval of the president or governing body of the University.

2. The Catalog contains the specific requirements for all degrees and certificates awarded by the University. These are normally in effect for a period of ten consecutive years for undergraduate degrees and certificates and seven consecutive years for graduate degrees and certificates. Students are cautioned that programs leading to licensure may be altered by the outside licensing agency and are not subject to this provision.

CATALOG OF RECORD AND DEGREE REQUIREMENTS

The online version is the official Graduate Catalog of Marshall University. It is updated semi-annually. The online catalog that is current for the semester or term during which you are admitted to your graduate degree program is the catalog that applies to you as your “catalog of record.” To ensure that you are meeting the requirements that apply to you, please consult the online Graduate Catalog in effect for the semester or term you are admitted to your degree program.

When Graduate College or degree program requirements are changed after you begin a course of study, with the approval of your advisor, you shall have the option of fulfilling either the old or the new requirements. If you elect to fulfill the old requirement but find that necessary resources (e.g., courses, instruction in particular skills) are no longer available, you may make reasonable substitutes with the approval of your advisor and the appropriate graduate dean. In the event you have not completed the requirements for a graduate degree seven years after the effective date of a change in degree requirements, the new requirements shall apply unless determined otherwise by the advisor and the appropriate academic dean.

STUDENT RESPONSIBILITY

Graduate students accept responsibility to remain current and informed on all regulations, policies, and procedures of their academic program and of the University.

The provisions of this catalog do not constitute a contract, expressed or implied, between any applicant or student and Marshall University. The University reserves the right to change any of the provisions, schedules, programs, courses, rules, regulations, or fees whenever University authorities deem it expedient to do so.
About
Marshall University

Gary G. White, Interim President

Marshall University encourages individual growth by offering programs and instruction in attainment of scholarship, acquisition of skills, and development of personality. The university provides students with opportunities to understand and to make contributions to the culture in which they live; to develop and maintain physical health; to participate in democratic processes; to learn worthwhile moral, social, and economic values; to develop intellectual curiosity and the desire to continue personal growth; and to share in a varied cultural program. Professional, technical, and industrial career studies are available through the various departments of the university.

Marshall also recognizes an obligation to the state and community by offering evening, off-campus, and Internet classes, lectures, musical programs, conferences, forums, and other campus and field activities.

MISSION OF THE UNIVERSITY

Marshall University is a multi-campus public university providing innovative undergraduate and graduate education that contributes to the development of society and the individual. The University actively facilitates learning through the preservation, discovery, synthesis, and dissemination of knowledge.

Marshall University will
• provide affordable, high quality undergraduate and graduate education appropriate for the state and the region;
• provide services and resources to promote student learning, retention, and academic success;
• foster faculty, staff, and student outreach through service activities; provide a safe and secure employee work environment; make instruction available throughout Marshall’s service area using all appropriate modes of delivery;
• enhance the quality of health care in the region;
• promote economic development through research, collaboration, and technological innovations;
• educate a citizenry capable of living and working effectively in a global environment;
• support and strengthen the faculty, staff, student, and administrative governance structures in order to promote shared governance of the institution;
• further the intellectual, artistic, and cultural life of the community and region; and
• adhere to the Marshall University Creed and to the Statement of Ethics.

Marshall University faculty will
• remain current in their fields of expertise and incorporate that expertise in the educational process as appropriate;
• improve instruction through the use of innovative teaching methods that require students to become actively involved in the learning process and develop the critical thinking skills necessary for lifelong learning;
• contribute to the body of knowledge through completion of scholarly and creative activities;
• actively engage and mentor students in scholarly, artistic, and creative endeavors;
• help students develop the ability to navigate through a rapidly changing society; and
• regularly review the curriculum, degree, and programs offered, and recommend necessary additions and deletions to meet changing needs of the state and region.

Marshall University staff will
• support the mission of the University in their transactions with students, staff, faculty, administrators, and the public;
• develop a positive, just, and equitable workplace; and
• be a quality workforce equipped with appropriate skills and knowledge.

(continued)
Marshall University students will have the opportunity to:

- use their knowledge, creativity, and critical thinking skills to make their communities better places in which to live;
- examine critically the many issues facing society and, through the process of civil discourse, prepare themselves to become socially responsible individuals who contribute to the betterment of society;
- appreciate and to cultivate diversity, and to value differences;
- participate in activities such as artistic and cultural programs, social and residential life activities, and intercollegiate/intramural athletic teams; and
- undertake intensive graduate-level education in their chosen fields upon admission to graduate school, giving them solid foundations for becoming competent professionals.

Marshall University administration will:

- actively seek resources to support the mission and goals of the institution as stated in this document;
- secure funding to support scholarship, artistic, and creative endeavors, faculty and staff development, and state-of-the-art classrooms;
- provide leadership to facilitate the institution’s achievement of its mission and vision;
- administer the policies of the university in a fair, ethical, and equitable manner;
- communicate the vision, mission, goals, achievements, and difficulties of the institution in a clear, effective, and forthright manner to both internal and external constituencies; and
- actively support shared governance of the institution.

VISION STATEMENT

Marshall University, an exemplar of excellence in teaching and learning, will continue to place its highest priority on providing outstanding undergraduate and graduate education, resulting in national recognition in academics and in scholarly, artistic, and creative achievement. Marshall’s students will graduate well prepared for the responsibilities of life within a culturally diverse and globally interdependent society. Marshall will address the changing needs of the state and region and will return to the community and state an outstanding value for the resources invested in the university.

ACCREDITATIONS

- **Higher Learning Commission of the North Central Association of Colleges and Schools** (30 North LaSalle Street, Suite 2400, Chicago, IL 60602; toll-free 1-800-621-7440, [www.ncuhigherlearningcommission.org](http://www.ncuhigherlearningcommission.org)) accredits Marshall University as an institution of higher learning.
- **Accreditation Board for Engineering Technology** accredits the Engineering Technology program.
- **Accreditation Council for Continuing Medical Education** accredits the School of Medicine’s Continuing Medical Education program.
- **Accreditation Council for Graduate Medical Education** accredits the School of Medicine’s Residency Programs in Internal Medicine, Pathology, Transitional Year, Surgery, Pediatrics, Family Practice and Obstetrics/Gynecology.
- **AACSB International - The Association to Advance Collegiate Schools of Business** accredits the College of Business.
- **AACSB International – The Association to Advance Collegiate Schools of Business** accredits accounting degree programs of the College of Business.
- **American Chemical Society** certifies the Department of Chemistry.
- **American Psychological Association** accredits Doctor of Psychology degree program.
- **Accrediting Council on Education in Journalism and Mass Communication** (University of Kansas School of Journalism, Stauffer-Flint Hall, Lawrence, KS 66045; telephone 913-864-3986) accredits the W. Page Pitt School of Journalism & Mass Communications.
- **Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM)** ([www.cahiim.org](http://www.cahiim.org); 233 N. Michigan Ave, 21st Floor, Chicago, IL 60601-5800; telephone 312-233-1100) accredits the Master of Science in Health Informatics degree program for 2013 through 2023.
- **Commission on Accreditation of Athletic Training Education** (6850 Austin Center Blvd., Suite 100, Austin, TX 78731; telephone 512-733-9700) accredits the Athletic Training program.
- **Commission on Accreditation in Physical Therapy Education (CAPTE)** (1111 North Fairfax Street, Alexandria, VA 22314; phone: 703-706-3245; e-mail: accreditation@apta.org; website: [www.capteonline.org](http://www.capteonline.org)) accredits the Doctor of Physical Therapy program.
- **Council on Academic Accreditation of the American Speech-Language-Hearing Association** (10801 Rockville Pike, Rockville, MD; telephone 301-897-5700) accredits the Communication Disorders graduate program.
- **Council on Accreditation of Nurse Anesthesia Educational Programs** (222 South Prospect Avenue, Park Ridge, IL 60068-4001) accredits the Doctor of Management Practice in Nurse Anesthesia.
- **Forensic Science Education Program Accreditation Commission (FEPAC)/ American Academy of Forensic Sciences (AAFS)** ([www.aafs.org/epac](http://www.aafs.org/epac); 410 North 21st Street, Colorado Springs, CO 80904) accredits the Master of Science in Forensic Science.
• Forensic Science Education Program Accreditation Commission (FEPAC)/American Academy of Forensic Sciences (AAFS) (www.aafs.org/fepac; 410 North 21st Street, Colorado Springs, CO 80904) accredits the Master of Science in Forensic Science Emphasis in Digital Forensics.

• Liaison Committee on Medical Education of the American Medical Association and the Association of American Medical Colleges (515 North State Street, Chicago, IL 60610; telephone 312-464-4657) accredits the School of Medicine.

• National Association of Schools of Music (11250 Roger Bacon Drive, Reston, VA 22090; 703-437-0700) accredits the School of Music and Theatre.

• National Council for Accreditation of Teacher Education and the West Virginia State Department of Education accredit the teacher education program.

• Accreditation Commission for Education in Nursing, Inc. (3343 Peachtree Road NE, Suite 850 Atlanta, GA 30326; phone 404-975-5000; fax 404-975-5020) accredits programs for the Associate in Science in Nursing, the Bachelor of Science in Nursing and the Master of Science in Nursing.

• National Recreation and Park Association and the American Alliance of Leisure and Recreation accredit the Recreation and Park Resources program.

• World Safety Organization accredits undergraduate and graduate programs in Safety Technology.

**APPROVALS**

• American Association of University Women approves Marshall University.

• Federal Immigration and Nationality Act approves Marshall University for attendance of nonimmigrant international students.

**MEMBERSHIP IN MAJOR ORGANIZATIONS**

• AACSB/The International Association for Management Education

• American Association for Affirmative Action

• American Association of Colleges for Teacher Education

• American Association of Colleges of Nursing

• American Association of State Colleges and Universities

• American Council on Education

• American Dietetic Association

• American Library Association

• American Speech Language Hearing Association

• Association of American Medical Colleges

• Association of Departments of English, MLA

• Association of Schools of Journalism and Mass Communications

• Council of Colleges of Arts and Sciences

• Council of Graduate Schools in the United States

• International Council of Fine Arts Deans

• NACUBO-SACUBO

• National Collegiate Athletic Association

• National League for Nursing

• Southern Council on Collegiate Education for Nursing

• Southern Regional Education Board

• Teacher Education Council of State Colleges & Universities

**HISTORY**

Marshall University traces its origin to 1837, when residents of the community of Guyandotte and the farming country nearby decided their youngsters needed a school that would be in session more than three months a year. Tradition has it that they met at the home of lawyer John Laidley, planned their school, and named it Marshall Academy in honor of Laidley’s friend, the late Chief Justice John Marshall. At the spot called Maple Grove they chose one and one-quarter acres of land on which stood a small log building known as Mount Hebron Church. It had been the site of a three-month subscription school and remained that for another term. Eventually $40 was paid for the site.

On March 30, 1838, the Virginia General Assembly formally incorporated Marshall Academy. Its first full term was conducted in 1838-39. For decades the fledgling school faced serious problems, most of them financial. The Civil War forced it to close for several years, but in 1867 the West Virginia Legislature renewed its vitality by creating the State Normal School at Marshall College to train teachers. This eased Marshall’s problems somewhat, but it was not until the tenure of President Lawrence J. Corbly during 1896-1915 that the college began its real growth.

In 1907, enrollment exceeded 1,000. Since then Marshall’s expansion has been consistent and sometimes spectacular. Marshall was granted university status in 1961. The College of Education and Professional Development, first called Teachers...
College, was organized in 1920 and the first college degree was awarded in 1921. The College of Arts and Sciences was
formed in 1924. The College of Applied Science came into being in 1960; the School of Business was formed in 1969. These
were merged into the College of Business and Applied Science in 1972. The School of Medicine and Associated Health
Professions was established in 1974, which became the Joan C. Edwards School of Medicine in 2000. The Community College
was organized in 1975 and became the Community and Technical College in 1991. In 2003, the Marshall Community and
Technical College became an administratively linked, separately accredited institution. Effective July 1, 2008, the Community
and Technical College became a separate institution.

The College of Science was authorized by the Board of Regents in 1976. In 1977, the Board approved a change of name
for the College of Arts and Sciences to the College of Liberal Arts, and for the College of Business and Applied Science to
the College of Business. In 1978, the School of Nursing was established as a separate entity and in 1998 was renamed the
College of Nursing and Health Professions and again in 2004 became the College of Health Professions. The W. Page Pitt
School of Journalism and Mass Communications was recognized as an independent school in 1998 and in 2013 became part
of the College of Arts and Media. The College of Fine Arts (now the College of Arts and Media) was established in 1984. In
1999, the College of Information Technology and Engineering was established. The School of Pharmacy matriculated its first
class in 2012. The School of Physical Therapy, a part of the College of Health Professions, matriculated its first class in 2012.

Marshall has taken the lead in delivering courses to off-campus sites throughout the state, nation, and world via distance
learning with online courses. Since the formation of the West Virginia Board of Regents in 1969, then under the University
of West Virginia Board of Trustees in 1988, and now the Higher Education Policy Commission, Marshall has progressed as
an urban-oriented university with regional centers and a statewide mission. As a result of state system support, and because
of its own active leadership and its location in the thriving Tri-State area, Marshall is a university with excellent prospects for
future development.

**Graduate Education**

In October, 1938, the West Virginia Board of Education authorized Marshall University to conduct graduate instruction
leading to the Master of Arts and the Master of Science degrees. Graduate work was first offered during the summer
session of 1939, and the first master’s degrees were conferred at the commencement of 1940. The Graduate School on the
Huntington campus was organized in 1948. The first Ph.D. degree was conferred in 1992 in Biomedical Sciences.

Graduate education on the South Charleston Campus was born in 1958 when West Virginia University was authorized
by the Legislature to establish the Kanawha Valley Graduate Center, which began offering courses in chemistry and
chemical, mechanical and civil engineering in 1958-59. In July 1972, the Legislature established the college as a separate
entity, the West Virginia College of Graduate Studies (COGS). Two years later, the Board of Regents further defined its
mission by specifying geographical areas of responsibility, designating COGS to serve 16 counties of central and southern
West Virginia with graduate programs—an area containing about 39 percent of the state’s population. On July 1, 1989, a
restructured University System of West Virginia was implemented and COGS became the University of West Virginia College
of Graduate Studies. With the advent of a new statewide mission approved by the Board of Trustees in 1991, the name was
modified in March 1992 to West Virginia Graduate College.

On July 1, 1997, the West Virginia State Legislature authorized a merger of Marshall University and the West Virginia
Graduate College, providing a new campus for Marshall University in South Charleston. Today the South Charleston campus
is the location for the graduate Humanities and Psychology M.A. programs of the College of Liberal Arts as well as graduate
programs of the College of Business, the College of Education and Professional Development, and the College of Information
Technology and Engineering.
Over the past seven decades the Marshall University Graduate College has provided graduate education to tens of thousands of students and has contributed to the economic and cultural life of the state, region, and nation. At Marshall University, the more than 650 faculty who hold graduate faculty status offer a broad range of courses in many different disciplines. Students may choose from 48 master’s programs, 7 doctoral programs, two Education Specialist degrees, and 33 certificate programs, plus an array of professional and professional development courses.

Graduate education is offered on the Huntington campus, the South Charleston campus, throughout the state and region and online world-wide. Some programs offer courses on either the Huntington or South Charleston campus. Some programs offer courses on both campuses and students may complete those programs, start to finish, at the campus location of their choice. Graduate courses may also be offered through Marshall University’s regional center locations in Teays Valley, Point Pleasant, or Beckley.

MISSION OF THE GRADUATE COLLEGE

The graduate mission of Marshall University is to provide quality educational opportunities at times and places convenient to students, employing alternative delivery systems and rich learning resources. The institution promotes excellence in instruction, research and public service in the interest of enhancing the intellectual, professional and personal growth of students, faculty and staff. Throughout the state Marshall University offers master’s degrees, post-master’s programs, doctoral degrees and professional development options according to needs and with a minimum of duplication.

In support of its graduate mission, Marshall University values

- excellence in teaching and advising;
- support services for students;
- the expansion of knowledge through research and inquiry;
- an interactive and collaborative relationship with the community;
- open access to quality educational opportunities;
- lifelong learning;
- cultural diversity;
- the continuous review of our programs and administrative processes;
- innovation and efficiency in the use of resources; and
- personal and institutional accountability.

To fulfill its graduate mission, Marshall University supports the commitment of institutional resources to ensure

- quality in existing graduate programs;
- adequate library resources for meeting accreditation requirements, electronic library needs and program initiatives;
- access to graduate programs within the state, region and nation;
- promotion of technological delivery of courses and programs;
- development of new graduate programs at the master’s, post-master’s, and doctoral levels according to need;
- recruitment and retention of a strong and diverse graduate faculty;
- recruitment and retention of a strong and diverse graduate student population; and
- development of student life initiatives appropriate for graduate students.
THE GRADUATE COUNCIL

The primary responsibility of the Graduate Council is to make policy recommendations with respect to the graduate education mission of the university to the university president. Specific functions include the facilitation of long range planning for graduate education at Marshall University, the recommendation of new programs and courses, the evaluation of existing programs and courses, the facilitation of graduate accreditation, the recommendation of promotion and tenure policies related to graduate education, and the recommendation of approval of graduate faculty to the university president.

THE GRADUATE FACULTY

There are currently more than 650 faculty who hold graduate faculty status and offer a broad range of courses in many different disciplines.

RESEARCH CENTERS

The Graduate College has a particular interest in research by students and faculty. It is the responsibility of the Graduate Dean to promote research by all available means. A Research Committee composed of faculty members advises the Dean on such matters. Students and faculty interested in research opportunities or who need assistance in their research activities may contact the Graduate Dean’s office in Huntington.

Cell Differentiation and Development Center

The Cell Differentiation and Development Center (CDDC) is an inter-disciplinary group aimed at increasing institutional research capacity at Marshall University. The products and outcomes of this venture will be applied to further technology-based economic development in Huntington, Cabell County, and the surrounding tri-state area. The multidisciplinary research groups within the CDDC mainly focus on the mechanisms that govern cellular differentiation and development.

Center for Business and Economic Research

Standing as a research arm of Marshall University, the CBER's mission is to conduct business and economic research pertinent to the West Virginia and tri-state regional economies; provide related research and service support to College Faculty; support University economic development and service efforts; integrate with the business community through direct faculty involvement in research related to the West Virginia and tri-state economies; provide business and economic development support to public and sector constituencies; disseminate information, research findings, and data; and encourage and support faculty in their intellectual pursuits and contributions.

Center for Environmental, Geotechnical and Applied Sciences

CEGAS was established in May 1993 through the cooperative efforts of the presidents of Marshall University and West Virginia Graduate College. On July 1, 1998, CEGAS became an affiliated organization of the College of Information Technology and Engineering (CITE). The goal of the center is to forge close working relationships among the business community, higher education institutions, and government agencies in technology related endeavors. CEGAS has been involved since its inception with educational offerings, research, service, and long-term planning for regional development.

The center has secured more than $10 million in external contracts and grants for research, development, and service projects in multiple fields of study, including Environmental Management, Engineering, Information Technology, Geographic Information Systems, Safety and Health Technology Innovation, Specialized Training, and business assistance through its Environmental Management Incubator. WV Senate Bill 603 was passed in spring 2005, authorizing the development of regional brownfield assistance centers at Marshall University and West Virginia University. Under CEGAS, the Southern West Virginia Brownfields Assistance Center assists eligible entities in 22 West Virginia counties to convert derelict land into useful and productive property through economic development, workforce development, and site revitalization.

For more information, please visit www.marshall.edu/cegas or contact CEGAS at (304) 696-5453 or cegas@marshall.edu.

Center for the Study of Ethnicity and Gender in Appalachia

CSEGA was made possible by a grant from the Rockefeller Foundation in 1996. The program was established to research and promote research on the various aspects of the people, cultures, and lives within the Appalachian region. The program's accomplishments have included sponsoring 10 scholars in residence, 7 scholar affiliates, and hosting 2 conferences. CSEGA has a unique research mission - it is the only Appalachian Center in the country dedicated to studying and understanding the incredible diversity of the region.
**Environmental Management Incubator**

The incubator works to enhance the sustainability of regional businesses by providing access to environmental information and management strategies, and encouraging business development based on environmentally-related opportunities.

**John Deaver Drinko Academy**

The Drinko Academy is devoted to enhancing public understanding of American institutions and the responsibilities of citizens to their society, particularly a sense of shared values and common purpose.

**Marshall Institute for Interdisciplinary Research**

The goal of this institute, created through the state’s “Bucks for Brains” research trust fund, is to develop a focused program of pioneering research dedicated to producing patentable scientific breakthroughs and creating new high-tech businesses based on those discoveries. Focusing on entrepreneurial research through increased educational and career opportunities, it is anticipated that MIIR will have a tremendous effect on the state economy over the next 10-20 years. In its first ten years, MIIR is expected to create more than 1,000 jobs, as well as to generate $25 million in tax revenue. During its second decade of existence, MIIR is slated to enhance the overall state economy by more than $280 million.

**Marshall University Forensic Science Center**

This center provides training to U.S. local, state and foreign country law enforcement agencies; backlog reduction services to U.S. local and state law enforcement agencies; and research on various forensic science topics such as digital forensics, forensic soil analysis, forensic pollen, drug analysis, fire and explosives analysis; DNA method validation studies, and crime scene investigation; educational services to high schools and other members of the local community; economic development services to the public-at-large including civil parentage testing and DNA sample preservation services to families of the deceased. The center also houses the accredited M.S. in Forensic Science program, the accredited MU Combined DNA Indexing System (CODIS), Criminal Relationship and Casework Labs, and the West Virginia Cybercrimes Investigation Unit.

**Marshall University Nutrition and Cancer Center**

Investigators at this NCRR/NIH-funded Center of Biomedical Research Excellence are studying a wide variety of dietary components, including omega-3 fatty acids, capsaicin (responsible for the “hotness” of chili peppers) and alcohol. Cancers of interest include small cell lung cancer, breast cancer, skin cancer and leukemia/lymphoma.

**Nick J. Rahall II Appalachian Transportation Institute**

The institute helps influence a more diverse and equitable economy for rural Appalachia and other mountain areas by providing insights into how to create and maintain the most cost-effective enhancement to the national transportation system in rural Appalachia and rural America.

**Robert C. Byrd Center for Rural Health Resources**

This center serves as the base for Marshall’s rural medicine outreach programs, which directly affect more than half of West Virginia’s population.

**Robert C. Byrd Institute for Advanced Flexible Manufacturing**

RCBI is the only statewide manufacturing technology production and teaching resource in the state. The institute provides manufacturers with access to advanced equipment; affordable, customized workforce development and technical training programs; quality certification and implementation assistance, and an array of technical support programs.

**West Virginia Autism Training Center**

This center provides training, information and support to West Virginians with autism, their families, educators and others.

**West Virginia IDeA Network of Biomedical Research Excellence**

The primary goal of this institute is to develop competitive NIH research at primarily undergraduate institutions in the state. The program also provides students at these institutions with enhanced research experiences. The principal areas of research are cardiovascular disease and cancer.
ANIMAL AND HUMAN SUBJECT RESEARCH

Graduate students conducting research involving experiments that utilize animals must work under the supervision of faculty advisors who have written permission from the Institutional Animal Care and Use Committee (IACUC) before the students can start the research. Information about procedures and protocol forms may be obtained from the Office of Research Integrity through its website at www.marshall.edu/ori.

Graduate students who conduct research involving the use of human subjects must have the approval of the applicable Institutional Review Board (IRB), either Medical or Behavioral and Social Sciences, before starting the research and must work under the supervision of faculty advisors. Information about procedures and approval forms may be obtained at the Office of Research Integrity website at www.marshall.edu/ori.

HAZARDOUS SUBSTANCES

Graduate students who will be using, or who will be generating, hazardous substances in their research must work under the supervision of faculty advisors who obtain permission for such research through the appropriate college safety committee. The college will arrange for proper disposal of these materials. Proposals must be submitted to the appropriate safety committee for approval.

POLICY STATEMENT ON INTEGRITY IN SCIENTIFIC RESEARCH

Research and scholarship are essential parts of Marshall University. The virtues of scholarship are forged from a combination of patience with eagerness, inspiration with meticulous care, and a reverence for integrity with a willingness to challenge cherished assumptions. It is within the research process that these virtues must be held in the highest esteem and measured against a strict set of standards. In this light, it is incumbent upon the institution to insure accurate, objective, valid and reliable research in the finest tradition of scholarship.

It shall be the policy of Marshall University that no faculty member shall knowingly plagiarize, fabricate, or present incorrect data in research or creative activities conducted under the auspices of the institution. Further, in the case of alleged scientific misconduct, all pertinent rules and regulations of the Public Health Service (PHS), such as 42 CFR Part 50 and allied documents, will prevail in providing definitions, procedures, and deadlines.

ADMISSION TO THE GRADUATE COLLEGE

Prospective graduate students should apply for admission as early as possible. The first step for a student interested in a degree program is to obtain admission information from the department offering the program desired or from the Graduate Admissions office. Instructions for applying are available at the Graduate College website at www.marshall.edu/graduate.

Admission deadlines are as follows:
- Fall Semester: August 1
- Spring Semester: December 1
- Summer Terms: May 1

Please note that some academic majors have a program-specific deadline. Program-specific deadlines are indicated on the Graduate Application for Admission and in the departmental listing under Degree Program Requirements in this catalog.

Admission to the Graduate College is based on receipt of a baccalaureate degree from an accepted, regionally accredited college or university, the Grade Point Average, the scores on required Admissions examinations and the information provided on the “Application for Graduate Admissions” form. The receipt of a bachelor’s degree from an accepted, regionally accredited college or university is the basic requirement for admission as a graduate student to Marshall University. An applicant who holds a bachelor’s degree from an institution that is not regionally accredited may file an appeal to request a waiver of this requirement. Appeals will be reviewed by the Dean of the Graduate College and the dean of the applicant’s proposed college on a case-by-case basis and will be granted on an extremely limited basis when the situation warrants. To initiate the appeal process, send a letter of request to the Graduate Admissions Office. The only exception to the baccalaureate degree requirement pertains to students in the 3+2 joint Bachelor’s/MBA degree program in the College of Business. Students who have previously taken graduate coursework at another institution must submit all transcripts and also meet undergraduate and examination requirements. Poor academic performance in prior graduate work may serve as the basis for the denial of admission to Marshall University Graduate College, at the discretion of the faculty.

The application for admission form accompanied by payment of a non-refundable application fee must be filed in the Graduate Admissions Office at least two weeks prior to the opening of the term of enrollment. One official copy of the applicant’s undergraduate transcript showing the degree earned and the date on which it was conferred must be mailed directly from the registrar’s office of the student’s undergraduate college or university to the Graduate Admissions Office when the application is filed. An official transcript from each college or university previously attended, mailed directly from the registrar’s office to the Graduate Admissions Office, may also be required before the applicant can be considered for admission to a degree program. All materials submitted in support of an application for admission become the property of Marshall University. Materials will not be returned or released to the student or to third parties. Any student admitted on the basis of false and/or incomplete information is subject to immediate dismissal or other disciplinary action.

In some academic programs, applicants may enroll for one semester with conditional status based upon submission of the application form, an official undergraduate transcript that certifies the receipt of a bachelor’s degree, official copies of all other transcripts (if applicable), and the application fee. However, students with conditional status will not be eligible for subsequent registration (even if they do not attend classes) unless they have completed all requirements for admission and have been admitted to their requested program. A student cannot be conditionally admitted to multiple programs within one calendar year and cannot be conditionally admitted to the same program, at any time, more than once. Credit for coursework taken will not be applied toward a degree unless the admission process is completed. Certain programs, including, but not limited to, those in the Graduate School of Management, Nursing, Biomedical Sciences, Communication Disorders, and others require that all admission requirements be completed and that the applicant be admitted to the program before being permitted to enroll for courses in those fields.

*For international students, a baccalaureate degree from the equivalent of an appropriately accredited institution is required. See International Students in this section of the catalog. In addition, all applicants who have an earned degree from a non-English institution must provide proof of English proficiency.
Admissions Examinations

The Graduate Record Examination (GRE) is required of applicants to some programs. M.B.A. students are required to take the Graduate Management Admission Test (GMAT) prior to admission to that program. Other programs may accept the Miller Analogies Test (MAT) in lieu of the GRE. Specific test requirements are indicated in the program or departmental description in later sections of this catalog. Test scores must be sent by the appropriate testing agency directly to the Graduate Admissions Office, Marshall University Graduate College, 100 Angus E. Peyton Drive, South Charleston, WV 25303-1600.

For complete information regarding admission examinations and the services provided by the Marshall University Testing Center, please see www.marshall.edu/graduate/admissions/graduate-admissions-test-information.

Waiver of Admissions Examination

If an applicant holds a master’s or higher degree from an accepted, regionally accredited institution of higher education, the admissions examination requirement may be waived for any future master’s program at Marshall University. Ultimate responsibility for this decision rests with the faculty of the program in which the student proposes to enroll.

Graduate Admission Checklist

• Complete, sign, date and submit by the deadline the Graduate Application for Admission and the required, non-refundable fee to:
  Marshall University
  Graduate Records and Admissions Office
  100 Angus E. Peyton Drive
  South Charleston, WV 25303-1600

• Request the registrars of colleges and universities previously attended (except Marshall University) to send official transcripts of your academic record directly to the Graduate Admissions Office as required. Transcripts bearing the stamp “Issued to Student,” hand-delivered transcripts, transcripts mailed or handled by the student, faxed transcripts, or transcripts issued to third parties cannot be accepted.

• Have the appropriate testing agency submit your official test scores (GRE, GMAT, or MAT) directly to the Graduate Admissions Office.

• Send or have sent all other items required by your academic major to the Graduate Admissions Office.

Applications are reviewed only after the application fee and all required credentials are received. Prior university holds or obligations on a student’s record may cause a delay in application processing or may cause the application not to be processed.

Deadlines

The Application for Graduate Admission must be filed in the Graduate Admissions office by the semester deadline for the desired term of enrollment or by the specific departmental deadline. Semester deadlines are as follows:

Fall Semester: August 1
Spring Semester: December 1
Summer Terms: May 1

Program-specific deadlines are included in the departmental listing under Degree Program Requirements in this catalog or on the Graduate Application for Admission form. Once the application is received by Graduate Admissions, in order for an application to be reviewed for admission, the non-refundable application fee and all required credentials must be filed in the Graduate Admissions office no later than two weeks prior to the opening of the desired term of enrollment or by the specific departmental deadline. Applicants should submit the non-refundable application fee at the time the application is submitted.

Admission Classification of Graduate Students

Degree Seeking - A student who desires admission as a degree-seeking graduate student must have an overall Grade Point Average of 2.5 on a 4.0 scale from the bachelor’s-degree-granting institution. The applicant must provide an official transcript from the degree-granting institution. Individual schools and programs may require higher grade point averages and/or additional credentials or documentation.

Applicants who have not earned the required minimum undergraduate GPA from the degree-granting institution may be considered for full admission if they have successfully completed a graduate/advanced degree from an accepted, regionally accredited college or university.
DUAL-DEGREE SEEKING - Students who wish to seek admission to more than one degree program at a time (Dual Degree Status) must complete a separate application, pay an additional non-refundable application fee, submit all required credentials, and meet all admission requirements for each academic program to which admission is sought. A maximum of 12 semester hours from a prior degree may be applied toward a subsequent master’s degree, with the approval of the department from which the subsequent degree is sought. Not all departments may accept a student who is already admitted to another graduate level program. Prior to submitting a Graduate Application for Admission, please check with the academic department(s) of the program(s) in which you are interested. Students who desire a second area of emphasis within their majors should notify the advisor after admission.

CERTIFICATE OR PROFESSIONAL DEVELOPMENT - Students who do not wish to be enrolled in degree programs but who wish to enroll in certificate/licensure programs or other programs that require the completion of specified sequences of courses should apply as certificate or professional development students.

In most cases, requirements for admission to certificate or professional development programs are the same as for admission to degree programs, including at least a 2.5 overall undergraduate GPA. However, requirements for admission to these programs can vary and are explained in the Degree Program Requirements section of this catalog.

PROVISIONAL ENROLLMENT - A student may be admitted as provisional in a degree program after submission of all required application materials when he or she possesses a baccalaureate degree and shows academic promise but does not meet the criteria for regular admission. An academically provisional student must be reclassified as a regular student no later than the completion of the 12th graduate credit hour. This is accomplished by meeting the conditions established by the academic program and by maintaining at least a 3.0 GPA in courses identified by the program faculty and approved by the appropriate dean.

CONDITIONAL ENROLLMENT - In some programs, applicants who are not fully admitted may register for courses with conditional enrollment status in the semester for which they have applied for entry based upon submission of (1) a properly completed Graduate Application for Admission form, (2) official undergraduate and graduate transcripts from institutions previously attended, including one which certifies the receipt of a bachelor’s degree from an accepted, regionally accredited institution, (3) an overall undergraduate GPA of 2.5 on a 4.0 scale, and (4) the appropriate application fee. Applicants who are permitted to enroll for one semester (enrolled is defined as registered when a term begins or any time thereafter) as conditional students (even if they do not attend the classes) are not eligible to register for subsequent terms until they complete all admission requirements and are fully admitted to the requested program. Many programs do not accept conditional enrollments and require applicants to be fully admitted before enrolling for courses. A student cannot be conditionally admitted to multiple programs within one calendar year and cannot be conditionally admitted to the same program, at any time, more than once.

Students enrolled in the last semester of an undergraduate program may be admitted to some programs conditionally for one term subject to completion of the bachelor’s degree program and subject to departmental approval. All required credentials, including official transcripts, are necessary for consideration, including an official letter of good standing/proof of pending graduation.

NON-DEGREE ADMISSION - Persons who desire university instruction without becoming graduate degree candidates may attend as non-degree students, provided they have received a bachelor’s degree from an accepted, regionally accredited undergraduate college or university. Before enrolling in a class, non-degree graduate students must obtain permission from the instructor. Students wishing to take courses offered by the College of Business must secure approval of the academic advisor. The fees for attendance as a non-degree student are the same as those set for other graduate students. Non-degree enrollment for graduate courses is not available to persons under suspension by the university.

A non-degree student who does not hold a master’s or higher degree may take a maximum of 15 semester hours. Permission for non-degree students to register for additional hours beyond 15 can be granted by the Dean of the Graduate College or the appropriate school dean. Applicants for non-degree status will complete a Graduate Application for Admission, pay the application fee, and have the registrar send an official transcript showing proof of a bachelor’s degree from an accepted, regionally accredited undergraduate college or university not later than the scheduled time of registration. A person holding a master’s or higher degree may take an unrestricted number of additional courses for which he/she has the prerequisites and departmental permission, provided both a transcript verifying the undergraduate degree and a transcript verifying a master’s degree or higher (both from an accepted, regionally accredited college or university) are submitted. All transcripts must be official and sent to Graduate Admissions directly from the registrar. Please note that non-degree students may not be eligible for financial aid or graduate tuition waivers.

Non-degree graduate students may apply later for admission to degree programs by filing the necessary documents, provided they meet the admission requirements described in the current Marshall University Graduate Catalog. However, work taken as a non-degree student cannot in itself qualify a person for admission as a degree candidate. Only credit approved by the assigned program advisor and the appropriate dean will be counted toward a degree awarded by the university.

TRANSIENT - A graduate student who is duly enrolled at another accepted, regionally accredited graduate institution may, upon submission of an admission application and a letter of good standing from the registrar at the home university, enroll
for Marshall University graduate coursework. This admission is valid for one semester only. The student must submit a new application and provide a letter of good standing for each semester he/she wishes to attend.

Normally, up to twelve credit hours of coursework may be transferred back to the home institution. Permission to transfer credits is arranged, by the student, with the home university. Transient students who wish to register for coursework beyond twelve credit hours at Marshall are required to obtain the approval of Marshall University's Graduate Dean.

STAFF DEVELOPMENT - School personnel approved by their county school systems may use a departmental form to be admitted in the Staff Development category. Students admitted in this category are restricted to registering for Staff Development classes (560 series) in the College of Education and Professional Development, for which they will receive credit/non-credit or satisfactory/unsatisfactory grades. Such classes cannot be used in degree, professional development or licensure programs. Students who wish to enroll in both regular and Staff Development classes must seek regular admission to the Graduate College.

SENIORS - Seniors at accepted, regionally accredited baccalaureate institutions with a cumulative GPA of at least 2.75 may register for graduate classes (500 and 600 series) after they have received approval from their undergraduate dean, the chair of the department offering the course, and the appropriate graduate college/school dean. Complete applications must be on file in the appropriate graduate dean’s office and permission secured prior to the opening of the term of enrollment. Credit for graduate courses completed as a senior can be applied to either an undergraduate or a graduate degree at Marshall University but not to both. No more than 12 graduate hours may be taken as an undergraduate.

The university reserves the right, even after the arrival and enrollment of students, to make individual curricular adjustments whenever particular deficiencies or needs are identified. These deficiencies will be determined by the student’s advisor or the program director/department chair. Students may be required to take such courses without credit toward the master’s degree and at their own expense. This could also apply to additional coursework in Speech and/or English whenever necessary.

Further requirements or exceptions applicable to special fields are noted in the program statements in this catalog.

Any appeals of admissions decisions should be directed to the program director, dean, or chair of the academic program to which the individual applied.

RESIDENCY CLASSIFICATION FOR ADMISSION AND FEE PURPOSES

Requests for changes in residency status for new students will be evaluated by the Admissions Office provided a completed residency application with all required supporting documentation is submitted by the end of the first week of classes of each new term. Thereafter, all requests for changes in residency status for currently enrolled students will be evaluated by the Registrar, for subsequent terms.

Title 133
Procedural Rule
West Virginia Higher Education Policy Commission, Series 25

SECTION 1. General
1.1. Scope - Rule regarding residency classification of students for admission and fee purposes.
1.3. Filing Date - July 2, 2002
1.4. Effective Date - August 1, 2002
1.5. Repeal of Former Rule - Repeals and replaces Title 128, Series 34 and Title 131, Series 34

SECTION 2. Classification for Admission and Fee Purposes

2.1. Students enrolling in a West Virginia public institution of higher education shall be assigned a residency status for admission, tuition, and fee purposes by the institutional officer designated by the President. In determining residency classification, the issue is essentially one of domicile. In general, the domicile of a person is that person’s true, fixed, permanent home and place of habitation. The decision shall be based upon information furnished by the student and all other relevant information. The designated officer is authorized to require such written documents, affidavits, verifications, or other evidence as is deemed necessary to establish the domicile of a student. The burden of establishing domicile for admission, tuition, and fee purposes is upon the student.

2.2. If there is a question as to domicile, the matter must be brought to the attention of the designated officer at least two (2) weeks prior to the deadline for the payment of tuition and fees. Any student found to have made a false or misleading
statement concerning domicile shall be subject to institutional disciplinary action and will be charged the nonresident fees for each academic term theretofore attended.

2.3. The previous determination of a student’s domiciliary status by one institution is not conclusive or binding when subsequently considered by another institution; however, assuming no change of facts, the prior judgment should be given strong consideration in the interest of consistency. Out-of-state students being assessed resident tuition and fees as a result of a reciprocity agreement may not transfer said reciprocity status to another public institution in West Virginia.

SECTION 3. Residence Determined by Domicile

3.1. Domicile within the state means adoption of the state as the fixed permanent home and involves personal presence within the state with no intent on the part of the applicant or, in the case of a dependent student, the applicant’s parent(s) to return to another state or country. Residing with relatives (other than parent(s)/legal guardian) does not, in and of itself, cause the student to attain domicile in this State for admission or fee payment purposes. West Virginia domicile may be established upon the completion of at least twelve (12) months of continued presence within the state prior to the date of registration: Provided, That such twelve (12) months’ presence is not primarily for the purpose of attendance at any institution of higher education in West Virginia. Establishment of West Virginia domicile with less than twelve (12) months’ presence prior to the date of registration must be supported by evidence of positive and unequivocal action. In determining domicile, institutional officials should give consideration to such factors as the ownership or lease of a permanently occupied home in West Virginia, full-time employment within the state, paying West Virginia property tax, filing West Virginia income tax returns, registering of motor vehicles in West Virginia, possessing a valid West Virginia driver’s license, and marriage to a person already domiciled in West Virginia. Proof of a number of these actions shall be considered only as evidence which may be used in determining whether or not a domicile has been established. Factors militating against the establishment of West Virginia domicile might include such considerations as the student not being self-supporting, being claimed as a dependent on federal or state income tax returns or on the parents’ health insurance policy if the parents reside out of state, receiving financial assistance from state student aid programs in other states, and leaving the state when school is not in session.

SECTION 4. Dependency Status

4.1. A dependent student is one (1) who is listed as a dependent on the federal or state income tax return of his/her parent(s) or legal guardian or who receives major financial support from that person. Such a student maintains the same domicile as that of the parent(s) or legal guardian. In the event the parents are divorced or legally separated, the dependent student takes the domicile of the parent with whom he/she lives or to whom he/she has been assigned by court order. However, a dependent student who enrolls and is properly classified as an in-state student maintains that classification as long as the enrollment is continuous and that student does not attain independence and establish domicile in another state.

4.2. A nonresident student who becomes independent while a student at an institution of higher education in West Virginia does not, by reason of such independence alone, attain domicile in this state for admission or fee payment purposes.

SECTION 5. Change of Residence

5.1. A person who has been classified as an out-of-state student and who seeks resident status in West Virginia must assume the burden of providing conclusive evidence that he/she has established domicile in West Virginia with the intention of making the permanent home in this State. The intent to remain indefinitely in West Virginia is evidenced not only by a person’s statements, but also by that person’s actions. In making a determination regarding a request for change in residency status, the designated institutional officer shall consider those actions referenced in Section 3 of these rules. The change in classification, if deemed to be warranted, shall be effective for the academic term or semester next following the date of the application for reclassification.

SECTION 6. Military

6.1. An individual who is on full-time active military service in another state or a foreign country or an employee of the federal government shall be classified as an in-state student for the purpose of payment of tuition and fees: Provided, That the person established a domicile in West Virginia prior to entrance into federal service, entered the federal service from West Virginia, and has at no time while in federal service claimed or established a domicile in another state. Sworn statements attesting to these conditions may be required. The spouse and dependent children of such individuals shall also be classified as in-state students for tuition and fee purposes.

6.2. Persons assigned to full-time active military service in West Virginia and residing in the state shall be classified as in-state students for tuition and fee purposes. The spouse and dependent children of such individuals shall also be classified as in-state students for tuition and fee purposes.

SECTION 7. Aliens

7.1. An alien who is in the United States on a resident visa or who has filed a petition for naturalization in the naturalization court, and who has established a bona fide domicile in West Virginia as defined in Section 3 of these rules, may be eligible for in-state residency classification: Provided, That person is in the state for purposes other than to attempt to qualify for residency status as a student. Political refugees admitted into the United States for an indefinite period of time and
without restriction on the maintenance of a foreign domicile may be eligible for an in-state classification as defined in Section 3 of these rules. Any person holding a student or other temporary visa cannot be classified as an in-state student.

SECTION 8. Former Domicile

8.1. A person who was formerly domiciled in the State of West Virginia and who would have been eligible for an in-state residency classification at the time of his/her departure from the state may be immediately eligible for classification as a West Virginia resident provided such person returns to West Virginia within a one (1) year period of time and satisfies the conditions of Section 3 of these rules, regarding proof of domicile and intent to remain permanently in West Virginia.

SECTION 9. Appeal Process

9.1. Each institution shall establish procedures which provide opportunities for students to appeal residency classification decisions with which they disagree. The decisions of the designated institutional official charged with the determination of residency classification may be appealed in accordance with appropriate procedures established by the president of the institution. At a minimum, such procedures shall provide that:

9.1.1. An institutional committee on residency appeals will be established to receive and act on appeals of residency decisions made by the designated institutional official charged with making residency determinations.

9.1.1.1. The institutional committee on residency shall be comprised of members of the institutional community, including faculty and at least three, in any event, an odd number. The student representative(s) shall be appointed by the president of the institutional student government association while the faculty representative(s) shall be selected by the campus-wide representative faculty organization.

9.1.1.2. The student contesting a residency decision shall be given the opportunity to appear before the institutional committee on residency appeals. If the appellant cannot appear when the committee convenes a meeting, the appellant has the option of allowing committee members to make a decision on the basis of the written materials pertaining to the appeal or waiting until the next committee meeting.

9.1.2. The residency appeal procedures will include provisions for appeal of the decision of the institutional committee on residency appeals to the president of the institution.

9.1.3. Residency appeals shall end at the institutional level.

ADMISSION OF INTERNATIONAL STUDENTS

Marshall University is authorized by the U.S. Department of Homeland Security, Bureau of Citizenship and Immigration Services to enroll non-immigrant visa students with F-1 or J-1 status. International students must have a baccalaureate degree from an appropriately accredited institution or its equivalent.

How to Apply

1. Meet Admission Requirements

Review the admission requirements of the degree program you have selected to determine if you have met the requirements for admission. Degree requirements for every program are listed at www.marshall.edu/catalog/graduate.

2. Understand the Admission Process

The Office of Graduate Admissions will review your application to ensure that the application is complete and that you have met the minimum institutional requirements for admission. Your completed application and supporting materials are then sent to the degree program you selected on your application for a secondary evaluation and an admission decision.

3. Submit Your Application

International students must submit ALL required documents to be considered for admission.

Complete and submit the online application for admission at: www.marshall.edu/graduate/admissions/international-admission.

The application requires a $150 non-refundable application fee payable by check, money order, or credit card to Marshall University. Please note that this is a non-refundable fee and cannot be refunded in the event that you are not accepted or you are unable to obtain a student visa. All checks must have a 9-digit routing number. DO NOT SEND CASH.

Mail to:

Marshall University
Graduate Admissions Office
100 Angus E. Peyton Drive
South Charleston, West Virginia 25303-1600

You can pay the $150 application fee with a credit card by contacting Graduate Admissions at 1-800-642-9842. A 2.5% processing fee, per transaction, will be required to make payment by credit card. VISA, MasterCard, Discover and American Express credit cards are accepted.
After we receive all of your application materials, your credentials will be evaluated and, if admissible, you will be sent a letter of admission and an I-20 form. The I-20 form is used to apply for a student visa (F-1) at an American embassy or consulate. We will also send a housing application and a form you can complete to notify us of your arrival.

4. Provide Supporting Documents
   • Official Transcripts
     Transcripts must be in the original language, accompanied by a certified English translation, and contain ALL college or university academic credits and grades. The transcripts must be sent directly to the Marshall University Graduate Admissions office by the Registrar or equivalent at institution that you attended. You may, in some cases, be required to have an evaluation completed by an approved evaluation agency.
   • Evidence of English Language Proficiency
     Proof of your proficiency in English may be certified by submitting one of the following:
     - (TOEFL) Test of English as a Foreign Language (Internet based) minimum score of 80 for graduate study. ETS code for Marshall University is #5396.
     - (MELAB) Michigan English language Assessment Battery minimum score of 82 for graduate study.
     - (IELTS) the International English language Testing System minimum score of 6.5 for graduate study.
     - Completion of Level 6 of Marshall’s Academic English program, with minimum Bs in all courses.
     - Completion of Marshall Pathway course ENG 160 or ENG 101A with minimum C grade.
     - Diploma or degree from an English speaking school - a degree or diploma from an accredited secondary school, college or university in which the primary language of instruction is English.
     - You have graduated from a regionally accredited college or university in the United States.
     NOTE: English test results that were taken more than two (2) years prior to the date of the application submission cannot be accepted. Some programs may require higher scores for admission.
   • Affidavit of Financial Support
     Marshall University currently requires that the international student demonstrate proof of financial support to cover the tuition and living expenses for one (1) academic year (9 months). We estimate this amount to be $31,508 USD, subject to change. (In some cases, a 50% deposit will be required in order to issue the 1-20 form.) Proof of financial support may be demonstrated in several ways:
     a. An affidavit of financial support from a personal sponsor (parent, relative, friend, etc.) that has been certified by a U.S. bank or financial institution.
     b. A scholarship agency (government, corporation, etc.) stating the availability of funds and the intention to support your educational and living expenses for the entire duration of study at Marshall University.
     c. Personal funds, provided you submit documented evidence of a bank statement from a U.S. bank or financial institution or its affiliate in U.S. dollars (USD). A statement from your employer certifying that you have been granted study leave and salary support arrangements may also be acceptable.

5. Graduate Admission Examinations
   Some programs will not consider applications without GRE, GMAT or other graduate admission test scores. Students should refer to the graduate catalog on our website, www.marshall.edu/graduate for additional requirements and application deadlines for specific programs. Admission to Marshall University does not guarantee admission to all programs.

SEND ALL APPLICATION MATERIALS TO:
Marshall University
Graduate Admissions Office
ATTN: International Admission
100 Angus E. Peyton Drive
South Charleston, West Virginia 25303-1000
international@marshall.edu

APPLICATION DEADLINES
June 15 - for students applying to the fall semester beginning in August
October 15 - for students applying to the spring semester beginning in January
March 15 - for students applying to the summer term

Note: Some programs may have application deadlines that are earlier than the ones provided above. In such cases you will need to meet the program’s deadline.
Finalize Your Plans

If admitted, you will receive a letter of acceptance and an 1-20 form. The 1-20 form is used to apply for a student visa (F-1), at an American Embassy or Consulate. We will also send a housing application and a form you can complete to notify us of your arrival.

Additional pre-departure and orientation information is available at: www.marshall.edu/graduate/international-students.

NOTE: For international applicants, Marshall University reserves the right to accept official credentials directly from a limited number of third party agencies that have been approved by the university. Additional or alternate admission credentials may be accepted at the discretion of the Graduate Admissions Office depending on the applicant’s country of origin. Please contact Graduate Admissions for details regarding specific admission requirements for applicants from your country.

If you are not able to attend the semester for which you applied, contact the Graduate Admissions Office and we will update your application term to the semester that you will be able to attend. Application materials will be acceptable for the next two terms, including summer terms. After that time period, a new application and documentation will be required.

INTO MARSHALL UNIVERSITY
1-304-696-4686
E-mail: into@marshall.edu
Website: http://intohigher.com/marshall
Administration
Eric Fry, Center Director
Benjamin White, Academic Program Director
Stephanie Hurley, Director of Student Experience

Marshall University offers academic Pathway and English language training programs through the INTO MU Center.

Graduate Pathway Programs

Graduate Pathway programs combine intensive language study, academic skills development, and academic coursework. The programs prepare international students for various graduate degrees at the university. Although all courses taken in the Graduate Pathway are credit-bearing, the English language course credits do not count toward the degree.

The Graduate Pathway programs are designed for international students who:
• Require additional preparation to be admitted directly to the Graduate School;
• Need further development of English language skills;
• Need to improve study skills for success in their chosen field of study; or
• Any or all of the above.

Graduate Pathway Programs are available in:
• Accountancy
• Master of Business Administration (M.B.A.)
• Engineering
• English with TESOL (Teaching English to Speakers of Other Languages)
• Environmental Science
• Exercise Science
• Healthcare Administration
• Human Resource Management
• Information Systems
• Mathematics
• Safety
• Sport Administration
• Technology Management

For more information please visit http://intohigher.com/marshall/programs online.

English Language Programs

The Academic English, General English, and College Year Abroad programs provide students with high-quality English language training.
Academic English

The Academic English program provides international students with an excellent opportunity to improve their English, develop academic skills, and adjust to the local culture and community. Six levels of instruction are offered across three 15-week terms. Students receive a minimum of 20 hours of classroom instruction per week. Successful completion of Level 5 (no grades below B at that level) fulfills the English language proficiency requirement for admission to the Graduate Standard Pathway programs; successful completion of Level 6 (no grades below B at that level) fulfills the English language proficiency requirement for direct admission to the university or admission to the Graduate Accelerated Pathway programs.

General English

The General English program consists of five-week sessions designed for students at all levels of English who wish to improve their communication skills and learn about American culture. Students receive a minimum of 20 hours of classroom instruction per week.

College Year Abroad

The College Year Abroad program is an extended version of General English. Students register for 25-week or 30-week programs and receive a minimum of 20 hours of classroom instruction per week.

For more information please visit http://intohigher.com/marshall/programs online.
FEES

Tuition and fee costs are based on the college in which the major is housed and the specific program. For a complete schedule of tuition and related fees for the current year, please visit www.marshall.edu/tuition.

The university and its governing board reserve the right to change fees and rates without prior notice. Fee assessments are calculated on student level, not course level.

Please note: All fee listings in the fee section of this catalog show the rates authorized and in effect for the fall semester of the 2015-2016 academic year.

TUITION AND ENROLLMENT FEES
FOR GRADUATE STUDENTS

<table>
<thead>
<tr>
<th>Fee Description</th>
<th>Resident Rates</th>
<th>Monster Fee1 Rates</th>
<th>Non-Resident Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Regular Student Tuition</td>
<td>$3,534.00</td>
<td>$6,382.00</td>
<td>$8,529.00</td>
</tr>
<tr>
<td>College of Business Fee</td>
<td>300.00</td>
<td>500.00</td>
<td>500.00</td>
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<tr>
<td>CITF Fee</td>
<td>550.00</td>
<td>850.00</td>
<td>850.00</td>
</tr>
<tr>
<td>Ed.S./Ed.D. Programs Fee</td>
<td>108.00</td>
<td>108.00</td>
<td>108.00</td>
</tr>
<tr>
<td>Executive M.B.A. Fee</td>
<td>4,500.00</td>
<td>4,500.00</td>
<td>4,500.00</td>
</tr>
<tr>
<td>Fine Arts Program2</td>
<td>175.00</td>
<td>395.00</td>
<td>395.00</td>
</tr>
<tr>
<td>Journalism Fee</td>
<td>100.00</td>
<td>175.00</td>
<td>175.00</td>
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<tr>
<td>Education and Professional Development Fee</td>
<td>45.00</td>
<td>45.00</td>
<td>45.00</td>
</tr>
<tr>
<td>Health Professions Fee2</td>
<td>275.00</td>
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<tr>
<td>Nursing Fee2</td>
<td>525.00</td>
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<td>900.00</td>
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<tr>
<td>Psychology Doctorate Fee2</td>
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<td>1,068.00</td>
<td>1,446.00</td>
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<td>Dietetics Program Fee</td>
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<tr>
<td>Kinesiology Program Fee</td>
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<tr>
<td>College of Liberal Arts Fee</td>
<td>85.00</td>
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<td>85.00</td>
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<tr>
<td>College of Science Fee</td>
<td>160.00</td>
<td>200.00</td>
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</table>

Regular Semester-Biomedical Sciences Program

<table>
<thead>
<tr>
<th>Fee Description</th>
<th>Resident Rates</th>
<th>Monster Fee1 Rates</th>
<th>Non-Resident Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Regular Fees</td>
<td>$4,635.00</td>
<td>$6,745.00</td>
<td>$9,620.00</td>
</tr>
</tbody>
</table>

1 Fee is applicable to students with residency classifications in the counties of Gallia, Jackson, Lawrence, Meigs, Pike, and Scioto, State of Ohio, and the counties of Boyd, Carter, Elliott, Floyd, Greenup, Johnson, Lawrence, Martin, and Pike, Commonwealth of Kentucky.
### Regular Semester - Forensic Science Program

<table>
<thead>
<tr>
<th>Resident Rates</th>
<th>Metro Fee¹ Rates</th>
<th>Non-Resident Rates</th>
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</thead>
<tbody>
<tr>
<td>$4,238.00</td>
<td>$6,345.00</td>
<td>$9,268.00</td>
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</table>

### Regular Semester - Master of Public Health Program

<table>
<thead>
<tr>
<th>Resident Rates</th>
<th>Metro Fee¹ Rates</th>
<th>Non-Resident Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>$5,200.00</td>
<td>N/A</td>
<td>$11,135.00</td>
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</table>

### Regular Semester - Doctorate in Physical Therapy

<table>
<thead>
<tr>
<th>Resident Rates</th>
<th>Metro Fee¹ Rates</th>
<th>Non-Resident Rates</th>
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</thead>
<tbody>
<tr>
<td>$5,424.00</td>
<td>N/A</td>
<td>$8,598.00</td>
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</table>

### Regular Semester - Doctorate in Pharmacy

<table>
<thead>
<tr>
<th>Resident Rates</th>
<th>Metro Fee¹ Rates</th>
<th>Non-Resident Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>$8,698.00</td>
<td>N/A</td>
<td>$15,233.00</td>
</tr>
</tbody>
</table>

### SPECIAL STUDENT FEES

**Application Fees**:  
- Graduate: $40.00  
- Undergraduate/Graduate Transfer: $50.00  
- College of Health Professions: $30.00  
- Dietetic Internship Program: $25.00  
- School of Nursing: $30.00  
- Master of Public Health: $30.00  
- School of Pharmacy: $100.00  
- International Application/Express Mail Fee: $150.00  
- CLEP/DANTES Testing: $15.00  
- COHP-MPH Non-major Course Fee (per 1 hour course): $495.00  
- (per 2 hour course): $989.00  
- (per 3 hour course): $1,483.00  
- (per 4 hour course): $1,977.00  
- COHP-SOK - Activity Course Fee: $40.00  
- COHP-SOK - Scuba Fee: $200.00  
- Distance Tuition (per credit hour): $310.00  

¹ Fee is applicable to students with residency classifications in the counties of Gallia, Jackson, Lawrence, Meigs, Pike, and Scioto, State of Ohio, and the counties of Boyd, Carter, Elliott, Floyd, Greenup, Johnson, Lawrence, Martin, and Pike, Commonwealth of Kentucky.
E-Delivery Course Fee (per credit hour)  40.00  
Enrollment Deposits
   School of Pharmacy*  500.00  
   School of Physical Therapy  500.00  
Graduation Fees*:
   Master’s Degree  50.00  
   First Professional Degree  100.00  
   Doctoral Degree  100.00  
   Certificate Fee  15.00  
   Diploma Replacement  50.00  
International Student Services Fee  75.00  
Late Payment Fee*  25.00  
Meal Card/ID Card Replacement  20.00  
Pharmacy · Matriculation Fee  270.00  
Pharmacy · Progression Fee  280.00  
Pharmacy · Simulation Fee  350.00  
Pharmacy · Practice Readiness Fee  270.00  
Reinstatement Fee – Course Schedule*  25.00  
Housing Miscellaneous Fees:
   Improper Check-out Fee*  50.00  
   Mail Box Re-Key (per lock)  30.00  
   Reservation Deposit  200.00  
   Room Re-Key (per lock)  40.00  
Returned Check Fee  25.00  
Revalidation of Credit Fee (per hour)  25.00  
Senior Citizens Course Fee-Series 67  50.00  
Student Success Fee  50.00  
Study Abroad Fee  100.00  
Study Abroad Application Fee  150.00  
Transcript  8.00  

*Non-refundable.

ROOM AND MEALS
Residence Halls and Food Service Plans

The Department of Housing and Residence Life provides on-campus living space for approximately 2,500 students. Individual residence halls will accommodate between 120 and 500 students in single and double occupancy rooms, and suite-style rooms. All halls are located within walking distance of academic buildings and downtown Huntington. There is 24-hour security in every residence hall. Every student living on campus has a meal plan and a room with WIFI, and cable television. Each hall is managed by a Residence Director with a Resident Advisor on each floor who provides the students with the best possible living and learning environment and resources.

SEMESTER FEES* (16 weeks):

Residence Halls

Double Occupancy
   First-Year Residence Halls  $3,042.00  
   Buskirk  $2,671.00  
   Twin Towers  $2,618.00  

Deluxe Single Occupancy

*Non-refundable.
### Room Rates

- **Buskirk (if available)**: $3,721.00
- **Holderby Hall**: $3,248.00
- **Twin Towers**: $3,648.00

### Single Room Suite

- **Gibson, Haymaker, Wellman, Willis**: $4,095.00

### Double Room Suite

- **Gibson, Haymaker, Wellman, Willis**: $3,068.00

### Board Rates

#### Unlimited Meal Plan

- w/ $50 Flex Dollars: $1,874.00
- w/ $150 Flex Dollars: $1,974.00
- w/ $250 Flex Dollars: $2,074.00

#### 15 Meal Plan

- w/ $100 Flex Dollars: $1,870.00
- w/ $200 Flex Dollars: $1,970.00

#### 10 Meal Plan

- w/ $400 Flex Dollars: $1,830.00
- w/ $500 Flex Dollars: $1,930.00

### EARLY ARRIVAL/BREAK HOUSING

- Double occupancy per date: $30.00
- Single occupancy per day: $40.00

### SUMMER TERM FEES (5 weeks): Residence Halls (unlimited meal plan)*

- **Twin Towers Double Occupancy**: $1,403.00
- **Twin Towers Single Occupancy**: $1,724.00

### COMMUTER MEAL PLANS*

- Fifty Meals w/$50 Flex Dollars: $422.00
- Thirty Meals w/$50 Flex Dollars: $278.00
- Twenty Meals w/$50 Flex Dollars: $216.00

### PAYMENT OF FEES

Tuition fees for a regular semester, a Summer Term, an Intersession, and any special class are due and payable to the Office of the Bursar in accordance with dates established and listed on the Marshall University website at [www.marshall.edu/bursar](http://www.marshall.edu/bursar). If you do not pay your enrollment fees on or before the due date, your registration will be cancelled and you will be subject to withdrawal from the university (see Withdrawal/Reinstatement Policy below). Do not depend on receiving a bill from the university in the mail. It is always your responsibility to know when enrollment fees are due and to pay them by that time. If you have not paid your enrollment fees by the official due date you must obtain permission from the appropriate academic dean and the Office of the Registrar to register.

Student deferred payment plans for tuition will be offered for the fall and spring semester. All available financial aid from the term must be credited to the student’s account prior to determining the amount available for deferral. Contact the Office of the Bursar for current deferred payment plan information. A student’s residence services fees (room and board) are due at a semester rate payable in accordance with dates established by the Department of Housing and Residence Life.

*Rates are subject to change.

(continued)
You can pay fees by VISA, American Express, MasterCard or Discover by using CashTrack on myMU (www.marshall.edu/myMU). Credit card payments are also accepted at the Office of the Bursar, 101 Old Main.

If you are a recipient of financial aid through the university's loan or scholarship program, the university's Department of Intercollegiate Athletics, or any governmental agency, or by private loan or scholarship, you must complete arrangements for payment through the Director of Student Financial Assistance in 116 Old Main and the University Bursar in 101 Old Main. (See Student Financial Assistance below.)

Your registration is not complete until all fees are paid.
Your registration will be cancelled if the bank does not honor your check for payment of registration fees. A charge of $25.00 will be made for each check returned unpaid by the bank.
A student who has a financial obligation to the university cannot engage in any registration activity until the obligation is satisfied. Should the obligation remain unpaid the obligation may be assigned to a state-authorized collection agency.
A student who withdraws from the institution by following proper withdrawal procedures will receive refunds of fees paid in accordance with the refunding policy.
A student who is required to withdraw from the institution for disciplinary reasons may not receive refunds of fees paid.

WITHDRAWAL/REINSTATEMENT POLICY FOR NONPAYMENT OF ENROLLMENT AND RESIDENCE HALL FEES

1. Through late registration each semester, a schedule of withdrawal for nonpayment will be included on the bursar's office website at www.marshall.edu/bursar. Following late registration, the Bursar will send written notification to the student advising of administrative withdrawal for nonpayment of Enrollment or Residence Hall Fees.

2. Upon notice from the Bursar, the Registrar will initiate a complete withdrawal for a student not paying fees. The withdrawal will be for “Administrative-Nonpayment of Enrollment or Residence Hall Fees.”

3. The Registrar will notify the instructor that the student should not be permitted to continue attendance in the class.

4. If the student fulfills the financial obligation, the Bursar's Office will notify the student and his/her academic dean. The academic dean will have discretion to approve registration. If the dean approves, the student, the instructors, and the Registrar will be notified in writing immediately.

5. Upon receipt of notice from the academic dean, the Registrar will initiate the procedure to register the student in the courses for which the student was enrolled at the time of withdrawal.

6. A student who does not meet the financial obligation for enrollment and residence hall fees will have all entries of that registration erased on the Registrar's permanent record.

7. A student who owes a financial obligation to the university will not be permitted to enroll in subsequent semesters or terms until the obligation is paid.

8. If a student disputes an administrative withdrawal, he/she may file an appeal with the Student Grievance Board through the Office of Student Affairs. (The Student Grievance Board is a subcommittee of the Student Conduct and Welfare Committee.) This appeal must be filed before the effective date of withdrawal established by the Bursar. The administrative withdrawal will be suspended until the President of the University acts upon the recommendation of the Student Grievance Board.

WITHDRAWAL/REINSTATEMENT FOR OTHER FINANCIAL OBLIGATIONS

1. Failure to fulfill other types of financial obligations with proper procedure may result in administrative withdrawal from the university.

2. Upon notice from the Bursar, the Registrar will initiate a complete withdrawal for a student not paying financial obligations. The withdrawal will be “Administrative-Nonpayment of Financial Obligations” and will be dated with the effective date of processing of the withdrawal.

Under these conditions, procedures will be followed as outlined above, items 3, 4, & 5, under “Withdrawal/Reinstatement Policy for Nonpayment of Enrollment and Residence Hall Fees.”

3. Students who do not meet these “Other Financial Obligations” and who are administratively withdrawn from the university will receive the grade determined by the withdrawal policy in effect at the time the administrative withdrawal was initiated.

4. A student who owes other types of financial obligations to the university will not be permitted to enroll in subsequent semesters until the obligation is paid.

5. If a student disputes an administrative withdrawal, he/she may file an appeal with the Student Grievance Board through the Dean for Student Affairs. (The Student Grievance Board is a subcommittee of the Student Conduct and

1Rates are subject to change.
This appeal must be filed before the effective date of withdrawal established by the Bursar. The administrative withdrawal will be suspended until the President of the University acts upon the recommendation of the Student Grievance Board.

REFUND PROCEDURES

Enrollment fees (tuition fees) will be refunded during the period designated by the Office of the Registrar for Registration, Late Registration, and Schedule Adjustments for a regular semester or a summer term and published on the bursar’s office website at www.marshall.edu/bursar. Enrollment fees (tuition fees) will be refunded to students for:

1. **Schedule Adjustments** - Students who drop one or more classes through the end of the Late Registration period shall be eligible for a full reduction of tuition and fees of the dropped course(s), provided that the remaining tuition and fee assessment falls below twelve credit hours for undergraduate students or nine credit hours for graduate students.

2. **Complete Withdrawals** - Students initiating a complete withdrawal from the University shall receive a reduction in tuition and fees calculated using the following schedule, in accordance with Title 133 Legislative Rule, Series 32, Section 6.1:
   - During the first 10% of the term, 90% reduction,
   - From 11% to 25% of the term, 75%,
   - From 26% to 50% of the term, 50%,
   - After 50% of the term is completed, no reduction in tuition and fees will occur.

   Should the percentage calculation identify a partial day, the entire day should be included in the higher refund period.

3. **Course Withdrawals after Late Registration** - Students who do not officially withdraw from all classes at the University shall not be eligible for a reduction in tuition and fees.

4. Students receiving financial assistance covered by Title IV, who officially withdraw shall receive a refund in accordance with the Higher Education Act. See the following section.

Return of Title IV Funds Policy

See section under “Student Financial Assistance.”

Cancellation of Class

When it becomes necessary to cancel a class by administrative and/or faculty action, a student is granted a full refund of the fee for the class cancelled unless he/she registers in another course of like value in terms of semester hours. This action does not apply to withdrawals due to disciplinary action or withdrawals due to nonpayment of financial obligations.

Residence Services

Cancellation and Refund Policy for Residence Services

Cancellations of the Housing Contract by those not planning to enroll in the University or reside on campus must be received in writing by the Department of Housing and Residence Life on or before May 15th. Such cancellations will result in a refund of $100.00 of the reservation deposit. Cancellation postmarked after the 15th from individuals who do not enroll in the University or reside on campus will result in a forfeiture of the entire $200.00 reservation deposit. Individuals who complete a contract and who enroll in the University (academic classes) will be expected to fulfill their obligations for the period specified. For contracts commencing for the Spring or Summer terms, cancellations postmarked 30 days before the opening of housing will result in a $100.00 refund. Cancellations postmarked after that date will result in a forfeiture of the entire $200.00 reservation deposit.

Voluntary withdrawal from the University and, in turn, housing and food service prior to the opening of the residence halls will result in a full refund less the $200.00 reservation deposit. Complete withdrawal from the University and housing and food service between opening day and the first Friday will result in a refund of fifteen weeks room and board. Withdrawals after the first Friday will result in a forfeiture of all monies paid for a room. A prorated refund will be processed for any unused portion of the board plan.

Students whose residency is terminated automatically (due to violations of Code of Conduct or Residence Hall policies) forfeit all monies paid for that semester and remain liable for any unpaid room and meal plan balances at the time of termination. Students will be responsible for any interest, collection and reasonable attorney’s fees associated with the collection of delinquent accounts.

Students who are denied admission, declared academically ineligible to return, or are unable to return for medical reasons, will be refunded on a prorated basis.

Refunds of the enrollment fee only to students called to armed services will be processed in accordance with policy established by the Office of the Registrar.

Late fees are nonrefundable.
Financial Aid Application Process

To apply for financial aid, students must file the Free Application for Federal Student Aid (FAFSA) by visiting www.fafsa.gov. Students must enter Marshall University’s Federal School Code: 003815 in Section 6 – of the FAFSA for consideration of all financial aid programs to attend Marshall University.

The priority filing date for the FAFSA is March 1 prior to the academic year the student is attending for full consideration of all federal, state and institutional financial aid programs. Students may file the FAFSA after this date; however, certain financial aid opportunities may be missed.

In addition to the FAFSA, there is a supplemental application for students who wish to apply for financial aid for the summer. Marshall University Summer Financial Aid Applications are available by April 1. Summer is a non-standard term. This requires the Office of Student Financial Assistance to collect additional information, which is not provided on the FAFSA. Summer is also considered a trailer for financial aid awarding purposes, meaning that the summer follows the completed academic year. For example, to apply for financial aid for the 2016 summer terms, the student must have a 2015-2016 FAFSA on file and complete a 2016 Summer Financial Aid Application. To obtain a Summer Financial Aid Application, go to www.marshall.edu/go/summeraid.

Eligibility Determination

1. Student Aid Report

As a result of filing the FAFSA, the student receives a Student Aid Report (SAR) by email if an email address was provided on the FAFSA. Otherwise, the student will be sent a SAR through regular mail. Students have the ability to access their SAR by going to www.fafsa.gov. Students will need their FSA ID to access their SAR.

When students receive their SAR, Marshall University receives the results of the students’ FAFSA. The needs analysis results provide an Expected Family Contribution (EFC), which is used to determine a student’s financial aid eligibility.

2. Cost of Attendance

The COA that a financial aid package is based upon reflects average costs. Tuition and Fees are fixed costs for any given academic year. For actual tuition and fee costs visit the Bursar’s website at www.marshall.edu/bursar.

3. Eligibility Confirmation and Verification

Eligibility Confirmation

Information on the student’s FAFSA is checked with federal agencies to confirm that they meet basic eligibility requirements. The following student eligibility criteria are checked:

• Social Security number and citizenship status with the Social Security Administration
• Selective Service registration with the Selective Service System, if required
• Eligible non-citizenship status with the U.S. Department of Homeland Security
• Veteran Status with the U.S. Department of Veteran Affairs
• Default, disability discharge, bankruptcy, aggregate loan history statuses for federal student loans and overpayment status for federal student grants.

The Office of Student Financial Assistance must also review other eligibility requirements, which include, but are not limited to:

• Admission Status
• Satisfactory Academic Progress
• Enrollment Status
• Academic Level
• Dependency Status
• Marital Status
• Academic Major/Program
• Identity
• Unusual Enrollment Patterns

If any of these items come up as discrepant, the Office of Student Financial Assistance is required to resolve the issue. This may require the Office of Student Financial Assistance to follow up with the student to request documentation to resolve any of the eligibility issues referenced above.

Verification

Verification is the process in which Student Financial Assistance (SFA) – as dictated by federal and state regulations – compares the information reported on the FAFSA financial and other data including but not limited to the following items:
Students who are selected for verification are sent notification instructing them to access their financial aid records by logging into myMU.

SFA must receive all requested documentation before financial aid can be disbursed (or credited) to the student’s Bursar account. If there are differences between the data the student supplied on the FAFSA and the verification documentation submitted, corrections to the SAR may be needed, and as a result the student’s application will be reprocessed.

Student responsibilities are to:

- Submit all documents requested promptly
- Ensure that all documents are signed and complete and include the student’s name and Marshall University ID
- Maintain copies of all information used to file the FAFSA and of documents submitted to the Office of Student Financial Assistance

It is extremely important that students respond to requests for information promptly because finalized financial aid awards are processed in the order of file completion date. To ensure that financial aid funds disburse as scheduled at the start of the fall semester, students must be registered for classes and submit all required documentation by July 1. Students may submit documents after the July 1 deadline; however, they should be prepared to make payment arrangements with the Bursar’s Office in the event their financial aid is not finalized by the billing due date. The final deadline for submittal of all documents is 30 days prior to the end of the academic year the student is enrolled. The designated deadlines allow SFA to process and authorize disbursements within the timeframe permitted under regulations set forth for administering the federal and state financial aid programs.

The deadline for students to submit documentation may be extended up to 60 days after the student’s last day of enrollment during the academic year and will be processed to the extent that is administratively possible on a case-by-case basis.

If the student has already received an award notice from Marshall University and corrections are made to the SAR after verification, the student will receive a revised award notice if his or her eligibility has changed.

4. Enrollment Status

Each type of financial aid (program) has specific requirements regarding enrollment status.

As a rule financial aid packages are based on full-time enrollment and the Office of SFA uses the student’s enrollment status on the first day after drop/add period (usually the 8th day of the semester) to determine financial aid eligibility.

Graduate students enrolled in 9 or more credits are considered full-time students; graduate students enrolled between 5 and 8 credits are considered half-time students for financial aid eligibility purposes.

Professional staff development courses (560 – 564 S/U or CR/NC series) do not count toward the student’s degree requirements; therefore, they cannot be calculated as enrolled hours for financial aid eligibility purposes.

5. Academic Level Classification

Some financial aid programs have specific criteria based on the student’s academic (grade) level. Graduate students taking both graduate and undergraduate courses must be enrolled in at least 5 graduate credits to receive financial aid under a graduate student classification.

Dual Enrollment & Study Abroad

Marshall University students who plan to enroll at another college or university simultaneously may have their other enrollment elsewhere considered for financial aid eligibility at Marshall University.

Students may not receive federal financial aid at more than one institution of higher education for the same courses or at the same time. Students must declare which institution is to be considered the “home school” or the institution where they will receive their degree for financial aid eligibility purposes. To be considered for financial aid as a dually enrolled student or a student taking courses elsewhere during a given semester, a consortium agreement form must be completed and
approved by both Marshall University and the other school. Students may download and print a Consortium Agreement Form by visiting www.marshall.edu/sfa and clicking on the “Downloadable Applications & Forms” link. It is located within the General Forms tab.

Financial Aid Satisfactory Academic Progress Policies
1. Graduate Students (Excludes Doctor of Medicine, Doctor of Pharmacy, and Doctor of Physical Therapy)

Satisfactory Academic Progress (SAP) is the term used to define successful completion of degree requirements to maintain eligibility for federal and state financial aid. As required by regulations, Marshall University must determine whether a student is meeting SAP requirements. SAP evaluation for graduate students occurs at the conclusion of the spring semester each year.

The student’s entire academic history must be considered when determining SAP status irrespective of whether or not the student received financial aid. This includes transfer credits that apply to a Marshall University degree.

Requirements of the SAP Policy:
The following components are measured to determine whether the student is meeting SAP standards: Qualitative, Quantitative, and Maximum Timeframe.

Qualitative (Grade Point Average)
The qualitative component measures the quality of the student’s SAP by conducting a review of the student’s cumulative grade point average (GPA). To meet the qualitative requirement, the student must have a minimum cumulative Marshall University and overall GPA of at least a 3.0. Credits accepted from other schools that are applied to a Marshall University degree are counted in the calculation of the student’s GPA; and are, therefore, included in the qualitative measure.

(Specific federal, state, and institutional scholarships and grants may require a different minimum GPA for continued eligibility. This consideration is a separate and distinct factor in renewing or continuing eligibility for these specific financial aid funds. Information about the terms and conditions of specific student aid programs that have GPA credit completion requirements are provided to the student at the time the award is offered. This information may be reviewed by logging into myMU and accessing financial aid records.)

Quantitative Measure (Calculating Pace or Completion Ratio)
The quantitative component corresponds to the pace at which the student must progress through his or her program of study to ensure completion within the maximum timeframe permitted and provides for the measurement of the student’s progress at the end of each evaluation. Pace or completion ratio is calculated by determining the cumulative number of credit hours the student has successfully completed divided by the number of cumulative credit hours the student has attempted. Credits accepted from other schools that are applied to a Marshall University degree are counted in the calculation as both attempted and completed hours. To meet the quantitative requirement, the student’s completion ratio must be 67% or higher.

Maximum Time Frame Measure
The evaluation of maximum time frame commences the first semester or term of enrollment the student begins his or her graduate program and is counted going forward whether or not the student enrolls in all subsequent semesters or terms. To meet the maximum timeframe requirement, the following rules apply:

- Graduate Student Pursuing a Certificate, Master Degree or Ed. S. Degree
  Not to exceed 7 years from the start date of the program
- Graduate Student Pursuing a Doctorate Degree
  Not to exceed 10 years from the start date of the program

Financial aid eligibility is limited to the student receiving a maximum of two Graduate Certificates, two Master’s Degrees, one Ed. S. Degree, and two Doctoral Degrees (excluding Doctor of Medicine, Doctor of Pharmacy, and Doctor of Physical Therapy). If the student is pursuing a second Graduate Certificate or second Master’s Degree, the seven year count begins again when the student is admitted into the program. If the student is pursuing a second Doctoral Degree, the ten year count begins again when the student is admitted into the program.

In addition to the three measures referenced above to determine a student’s SAP, a student who is placed on Academic Probation or Academic Suspension by their school or college based on University academic policy is considered ineligible for financial aid.

Effects of Repeated Courses
If the student repeats a course, those credits are counted when measuring the qualitative, quantitative, and maximum time frame components.

Effects of Withdrawal, Incomplete, and In-Progress Grades
If the student withdraws from a course after the first week of classes during any given semester (i.e., student receives a grade of W for the course), the course credits are included in the count of attempted credit hours. Thus, withdrawn courses are calculated in the quantitative and maximum time frame measures.
Credits for an incomplete course (i.e., student receives a grade of I for the course) are always counted as credits attempted for quantitative and maximum timeframe measures but are not included in the GPA or the credits earned count until the incomplete grade changes to a passing or a failing grade.

Credits for courses in progress (i.e., student receives a grade of PR for the course) are not counted as attempted credits for the quantitative measure but are counted in the maximum timeframe measure.

**Effect of Change in Academic Program**

If a student changes his or her academic program (excluding Doctor of Medicine, Doctor of Pharmacy, and Doctor of Physical Therapy), all course credits attempted will be included in the calculation of the maximum time frame measure. Whether or not a student changes his or her major or is seeking a second Graduate Certificate or Degree, qualitative and quantitative measures are always evaluated.

**SAP Definitions:**

**Financial Aid Probation**

Financial Aid Probation status is assigned to a student who fails to make SAP and who has successfully appealed. A student who is placed on Financial Aid Probation may receive financial aid for one subsequent payment period. A student on Financial Aid Probation may be required to meet certain terms and conditions while on Financial Aid Probation, such as taking a reduced course load or taking specific courses. A student assigned a Financial Aid Probation status will be placed on a Financial Aid Academic Plan. At the conclusion of the SAP Academic Probation payment period, the student must either meet the SAP standards or fulfill the requirements specified in the Financial Aid Academic Plan.

**SAP Appeal Procedures:**

If a student fails one or more of the three measures (qualitative, quantitative and maximum time frame) or is placed on Academic Probation or Academic Suspension, the student is not eligible for federal and state aid including grants, scholarships, work-study and loans. However, students failing SAP standards who have had mitigating circumstances (i.e., death in the family, illness, involuntary military leave) may request reinstatement of their financial aid eligibility by completing the SAP Appeal for Financial Aid Reinstatement Form and submitting it to the Financial Aid SAP Appeals Committee, c/o Office of Student Financial Assistance, by the published SAP Appeal deadlines. The SAP Appeal for Financial Aid Reinstatement Form is available at www.marshall.edu/go/fasap.

The appeal, which must be typed, includes the following student requirements:

1. Detailed explanation for failure to meet SAP standards for each payment period the student failed to perform satisfactorily;
2. Documentation to support the reason for failure;
3. A copy of the Plan of Study indicating which courses are remaining to complete the academic program;
4. If cumulative GPA is less than a 3.0, a copy of Academic Ineligible Form;
5. Detailed explanation of what has changed that will now allow the student to comply with SAP standards, a statement of academic objectives, and corrective action plan; and
6. Meet and discuss appeal with academic advisor and obtain his or her signature.

**SAP Appeal Deadlines:**

<table>
<thead>
<tr>
<th>Semester/Term</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall Semester</td>
<td>One week prior to the first day of classes (for 2014-15, August 18, 2014)</td>
</tr>
<tr>
<td>Spring Semester</td>
<td>One week prior to the first day of classes (for 2013-14, January 5, 2015)</td>
</tr>
<tr>
<td>Summer Terms</td>
<td>End of Award Year (for 2014-15, June 30, 2015)</td>
</tr>
</tbody>
</table>

**SAP Appeals Committee and Decision:**

The SAP Appeals Committee is composed of representatives from the Office of Student Financial Assistance, Student Affairs, and Academic Affairs. Students will be sent official notification of the SAP Appeals Committee decision. The decision of the SAP Appeals Committee is final.

If the appeal is approved, the student is placed on Financial Aid Probation and the student’s financial aid eligibility is reinstated for one subsequent payment period. During the Financial Aid Probation period, the student may be required to fulfill certain conditions for financial aid reinstatement (e.g., enroll part-time). In addition, all students placed on Financial Aid Probation will be provided a Financial Aid Academic Plan.

At the conclusion of the payment period, if the student meets the standards of SAP, the Financial Aid Probation status will be removed. If not, the student’s academic performance for the term will be evaluated against the student’s Financial Aid Academic Plan. The academic plan requires students to complete 80% of the attempted coursework (100% if the student failed maximum timeframe) and earn a minimum 3.1 GPA for the payment period the student is on Financial Aid Academic Probation. If the student meets the requirements of the Financial Aid Academic Plan, the student will be assigned Financial Aid Probation for a subsequent payment period.

(continued)
(The FA Academic Plan is separate and distinct from an Academic Ineligible Form (for graduate students), which is required of graduate students who fail to maintain a minimum 3.0 Marshall or overall GPA.)

If the student fails to meet SAP standards or the requirements set forth in the Financial Aid Academic Plan, the student will be deemed ineligible for financial aid. The student may appeal again within the published deadlines.

2. Doctor of Pharmacy Students

Satisfactory Academic Progress (SAP) is the term used to define successful completion of degree requirements to maintain eligibility for federal and state financial aid. As required by regulations, Marshall University must determine whether a student is meeting SAP requirements. SAP evaluation for Doctor of Pharmacy (Pharm.D.) students occurs at the conclusion of the spring semester each year.

The student’s entire academic history must be considered when determining SAP status irrespective of whether or not the student received financial aid. This includes transfer credits that reflect on the student’s academic transcript as a course that applies to the Marshall University Pharm.D. degree.

Requirements of the SAP Policy:

The following components are measured to determine whether the student is meeting SAP standards: Qualitative, Quantitative, and Maximum Timeframe.

Qualitative (Grade Point Average)
The qualitative component measures the quality of the student’s SAP by conducting a review of the student’s cumulative grade point average (GPA). To meet the qualitative requirement, the student must have a minimum cumulative Marshall University and overall GPA of at least a 3.0. Credits accepted from other schools that are applied to a Marshall University Pharm. D. degree are counted in the calculation of the student’s GPA and are, therefore, included in the qualitative measure.

(Specific external and institutional scholarships, assistantships, and grants may require a different minimum GPA for continued eligibility. This consideration is a separate and distinct factor in renewing or continuing eligibility for these specific financial aid funds. Information about the terms and conditions of specific student aid programs that have GPA requirement and credit completion requirements is provided to the student at the time the award is offered. This information may be reviewed by logging into myMU and accessing financial aid records.)

Quantitative Measure (Calculating Pace or Completion Ratio)
The quantitative component corresponds to the pace at which the student must progress through his or her program of study. This evaluation is to ensure completion within the maximum timeframe (see below) permitted and provides for the measurement of the student’s progress at the end of each evaluation. Pace or completion ratio is calculated by determining the cumulative number of credit hours the student has successfully completed divided by the number of cumulative credit hours the student has attempted. Credits accepted from other schools that may be applied to a Marshall University degree are counted in the calculation as both attempted and completed hours. To meet the quantitative requirement, the student’s completion ratio must be 67% or higher.

Maximum Time Frame Measure
The evaluation of maximum time frame commences the first semester or term of enrollment the student begins the DPT program and is counted going forward whether or not the student enrolls in all subsequent semesters or terms. To meet the maximum timeframe requirement, Pharmacy students must complete their program within 13 semesters.

In addition to the three measures referenced above to determine a student’s SAP, a student who is placed on Academic Probation or Academic Suspension by the School of Pharmacy based on academic policy is considered ineligible for financial aid.

Effects of Repeated Courses
If the student repeats a course, those credits are counted when measuring the qualitative, quantitative, and maximum time frame components.

Effects of Withdrawal, Incomplete, and In-Progress Grades
If the student withdraws from a course after the first week of classes during any given semester (i.e., student receives a grade of W for the course), the course credits are included in the count of attempted credit hours. Thus, withdrawn courses are calculated in the quantitative and maximum time frame measures.

Credits for an incomplete course (i.e., student receives a grade of I for the course) are always counted as credits attempted for quantitative and maximum timeframe measures but are not included in the GPA or the credits earned count until the incomplete grade changes to a passing or a failing grade.

Credits for courses in progress (i.e., student receives a grade of PR for the course) are not counted as attempted credits for the quantitative measure but are counted in the maximum timeframe measure.

SAP Definitions:

Financial Aid Probation
Financial Aid Probation status is assigned to a student who fails to make SAP and who has successfully appealed. A student who is placed on Financial Aid Probation may receive financial aid for one subsequent payment period. A student
on Financial Aid Probation may be required to meet certain terms and conditions while on Financial Aid Probation. A student assigned a Financial Aid Probation status will be placed on a Financial Aid Academic Plan. At the conclusion of the Financial Aid Academic Probation payment period, the student must either meet the SAP standards or fulfill the requirements specified in the Financial Aid Academic Plan.

SAP Appeal Procedures:
If a student fails one or more of the three measures (qualitative, quantitative and maximum time frame) or is placed on Academic Probation or Academic Suspension, the student is not eligible for federal and state financial aid, which includes grants, scholarships, work-study and loans. However, students failing SAP standards who have had mitigating circumstances (e.g., death in the family, illness, involuntary military leave) may request reinstatement of their financial aid eligibility by completing the SAP Appeal for Financial Aid Reinstatement Form and submitting it to the Financial Aid SAP Appeals Committee, c/o Office of Student Financial Assistance. The SAP Appeal for Financial Aid Reinstatement Form is available at www.marshall.edu/go/fasap.

The appeal, which must be typed, includes the following student requirements:
1. Detailed explanation for failure to meet SAP standards for each payment period the student failed to perform satisfactorily;
2. Documentation to support the reason for failure;
3. The student’s Plan of Study;
4. The student’s Academic Ineligible Form;
5. Detailed explanation of what has changed that will now allow the student to comply with SAP standards, a statement of academic objectives, and corrective action plan; and,
6. Meet and discuss the appeal with the student’s academic dean or designee and obtain his or her signature.

SAP Appeal Deadlines:

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<td>End of Award Year (for 2015-16, June 30, 2016)</td>
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SAP Appeals Committee and Decision:
The SAP Appeals Committee is composed of representatives from the Office of Student Financial Assistance, and the School of Pharmacy Student Affairs and Academic Affairs offices. Students will be sent official notification of the appeals committee decision. The decision of the SAP Appeals Committee is final.

If the appeal is approved, the student is placed on Financial Aid Probation and the student’s financial aid eligibility is reinstated for one subsequent payment period. During the Financial Aid Probation period, the student may be required to fulfill certain conditions for financial aid reinstatement. In addition, all students placed on Financial Aid Probation will be provided a Financial Aid Academic Plan.

At the conclusion of the payment period, if the student meets the standards of SAP, the Financial Aid Probation status will be removed. If not, the student's academic performance for the term will be evaluated against the student’s Financial Aid Academic Plan. If the student meets the requirements of the Financial Aid Academic Plan, the student will be assigned Financial Aid Probation for a subsequent payment period.

If the student fails to meet SAP standards or the requirements set forth in the Financial Aid Academic Plan, the student will be deemed ineligible for financial aid. The student may appeal again for a future payment period within the published deadlines.

3. Doctor of Physical Therapy Students
Satisfactory Academic Progress (SAP) is the term used to define successful completion of degree requirements to maintain eligibility for federal and state financial aid. As required by regulations, Marshall University must determine whether a student is meeting SAP requirements. SAP evaluation for Doctor of Physical Therapy (DPT) students occurs at the conclusion of the spring semester each year.

The student’s entire academic history must be considered when determining SAP status irrespective of whether or not the student received financial aid. This includes transfer credits that reflect on the student’s academic transcript as a course that applies to the Marshall University DPT Degree.

Requirements of the SAP Policy:
The following components are measured to determine whether the student is meeting SAP standards: Qualitative, Quantitative, and Maximum Timeframe.

Qualitative (Grade Point Average)
The qualitative component measures the quality of the student’s SAP by conducting a review of the student’s cumulative grade point average (GPA). To meet the qualitative requirement, the student must have a minimum cumulative Marshall
University and overall GPA of at least a 3.0. Credits accepted from other schools that are applied to a Marshall University DPT Degree are counted in the calculation of the student’s GPA and are, therefore, included in the qualitative measure. (Specific external and institutional scholarships, assistantships, and grants may require a different minimum GPA for continued eligibility. This consideration is a separate and distinct factor in renewing or continuing eligibility for these specific financial aid funds. Information about the terms and conditions of specific student aid programs that have GPA requirement and credit completion requirements is provided to the student at the time the award is offered. This information may be reviewed by logging into myMU and accessing financial aid records.)

Quantitative Measure (Calculating Pace or Completion Ratio)

The quantitative component corresponds to the pace at which the student must progress through his or her program of study. This evaluation is to ensure completion within the maximum timeframe (see below) permitted and provides for the measurement of the student’s progress at the end of each evaluation. Pace or completion ratio is calculated by determining the cumulative number of credit hours the student has successfully completed divided by the number of cumulative credit hours the student has attempted. Credits accepted from other schools that may be applied to a Marshall University degree are counted in the calculation as both attempted and completed hours. To meet the quantitative requirement, the student’s completion ratio must be 67% or higher.

Maximum Time Frame Measure

The evaluation of maximum time frame commences the first semester or term of enrollment the student begins the DPT program and is counted going forward whether or not the student enrolls in all subsequent semesters or terms. To meet the maximum timeframe requirement, DPT students must complete their program within 13 semesters.

In addition to the three measures referenced above to determine a student’s SAP, a student who is placed on Academic Probation or Academic Suspension by the College of Health Professions DPT Program based on academic policy is considered ineligible for financial aid.

Effects of Repeated Courses

If the student repeats a course, those credits are counted when measuring the qualitative, quantitative, and maximum time frame components.

Effects of Withdrawal, Incomplete, and In-Progress Grades

If the student withdraws from a course after the first week of classes during any given semester (i.e., student receives a grade of W for the course), the course credits are included in the count of attempted credit hours. Thus, withdrawn courses are calculated in the quantitative and maximum time frame measures.

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**SAP Appeals Committee and Decision:**

The SAP Appeals Committee is composed of representatives from the Office of Student Financial Assistance and the School of Physical Therapy Student Affairs and Academic Affairs offices. Students will be sent official notification of the appeals committee decision. The decision of the SAP Appeals Committee is final.

If the appeal is approved, the student is placed on Financial Aid Probation and the student’s financial aid eligibility is reinstated for one subsequent payment period. During the Financial Aid Probation period, the student may be required to fulfill certain conditions for financial aid reinstatement. In addition, all students placed on Financial Aid Probation will be provided a Financial Aid Academic Plan.

At the conclusion of the payment period, if the student meets the standards of SAP, the Financial Aid Probation status will be removed. If not, the student’s academic performance for the term will be evaluated against the student’s Financial Aid Academic Plan. If the student meets the requirements of the Financial Aid Academic Plan, the student will be assigned Financial Aid Probation for a subsequent payment period.

If the student fails to meet SAP standards or the requirements set forth in the Financial Aid Academic Plan, the student will be deemed ineligible for financial aid. The student may appeal again for a future payment period within the published deadlines.

**Types of Aid Available**

Financial aid is funding for college education that comes from sources outside of the student’s family. Gift aid and self-help aid are the two categories of financial aid. Gift aid comes in the form of grants and scholarships and usually do not have to be repaid. Self-help aid comes in the form of loans and work-study. Financial aid at Marshall University is awarded based on financial need, merit, or both. Students may receive a combination of grants, scholarships, loans, and work-study in their Financial Aid Package. Sources of funding come from Marshall University, the federal government, the state and other entities.

For current and more detailed information on types of financial aid available, please visit [www.marshall.edu/sfa](http://www.marshall.edu/sfa) and click on the Types of Aid tab.

**Notification and Disbursement of Awards**

1. **Checking Financial Aid Records**
   
   Students may access their financial aid records by logging on to their myMU account. myMU is the student’s campus web portal used to provide students with easy online access to their Marshall University records.

   In order to log into myMU, students must have both their unique Marshall University username and password. Any student who has problems accessing his or her myMU records should email helpdesk@marshall.edu or call 1-877-689-8638.

2. **Understanding Financial Aid Awards & Requirements**

   Online financial aid notification via the student’s myMU account is the official method by which students receive information regarding their financial aid application and awards.

   Email is the primary means of communication between students and the Marshall University Office of Student Financial Assistance. Emails are sent to the student’s Marshall University email account. It is the student’s responsibility to monitor email notifications from the Office of Student Financial Assistance as well as from other university offices. Failure to read and respond to email communications from the Office of Student Financial Assistance may result in delay or cancellation of financial aid awards.

   Once you access your financial aid records within the Financial Aid Main Menu tab, you will be able to view the following topics:
   - Financial Aid Status
   - Eligibility
   - Awards

(continued)
3. Disbursement of Financial Aid (or Financial Aid Crediting to your Billing Account)

The earliest financial aid may credit to students' billing accounts is 10 days before the semester begins. However, financial aid will not credit to the student's account unless all eligibility requirements have been met and verification has been completed. In addition, if the student is taking out a student loan, the student must have completed entrance loan counseling and completed a master promissory note for the respective loan program.

Pending financial aid is a temporary status and is used for financial planning purposes only. Pending financial aid allows the Bursar Office to defer payment of student's tuition, fees, residential and board payments until the financial aid is finalized and credited to the student's Bursar account. Students are responsible for making payment for the difference between bursar charges and financial aid awards by the designated due dates established by the University.

Financial aid awards are not final until they have credited to the student's account. In the Overall Status tab of a student's MILO account, students may view their Account Summary, which includes all of the Bursar Office fees and financial aid if it has credited to your account.

4. Payment Plan Option

Under the Marshall University OASIS Payment Plan, students may select to make three equal payments of their outstanding charges for the fall or spring semester after any applicable financial aid has been applied. For more information, visit www.marshall.edu/bursar.

5. Refunds Due to a Financial Aid Credit Balance

When financial aid for the semester/term exceeds a student's direct charges (tuition, fees, etc.) on the student bill, the student is entitled to a refund for the difference for use toward other educational expenses. The Bursar Office issues refunds to students beginning the first day of classes. Only those students whose financial aid was credited 10 days prior to the semester/term with a credit balance will receive a refund on the first day of the semester/term. Following the first day of the semester/term, it takes approximately one week after financial aid is disbursed for the Bursar Office to issue a financial aid refund to a student.

For more information about financial aid refunds visit the Bursar's website at www.marshall.edu/bursar.

6. Impact on Financial Aid Due to Withdrawal or Failure to Enroll

Students could jeopardize receipt of some types of aid if they are not properly enrolled at the time that financial aid funds disburse. Students may have originally been packaged as a full-time student, but at the time the funds are ready to disburse, students' enrollment status may differ. Students change in enrollment may impact the eligibility for certain funds.

If a student does not attend for a period of enrollment that he/she has been awarded financial aid, the Office of Student Financial Assistance must cancel all financial aid awards offered. Upon re-enrollment, the student may request assistance again, but, because awards are based on the availability of funds, funding may be limited.

Students who plan to withdraw from any courses during an academic term should consult with a Financial Aid Counselor. Withdrawing from courses may prevent students from making Financial Aid Satisfactory Academic Progress and affect eligibility for future financial aid assistance. Students who cease attending all courses must follow the official withdrawal procedure as defined by the Registrar's Office to obtain an official withdrawal date.

When students withdraw from all courses on or before the 60% point in time of an academic term, the Office of Student Financial Assistance is required to review their financial aid awards to determine whether financial aid funds must be adjusted in accordance with federal and state regulations. The policies on treatment of financial aid for total withdrawal are specific to each designated financial aid program and are applicable only if the student has received those particular kinds of funds. If a student received various types of financial aid, more than one policy may apply when determining revised financial aid eligibility.

**Treatment of Marshall University, State & External Aid for Total Withdrawal**

Adjustments to institutional, state and external financial aid follow the Marshall University Refund Policy. The chart following describes how institutional, state and external financial aid is treated whenever a student withdraws:

<table>
<thead>
<tr>
<th>Period of Withdrawal</th>
<th>Percentage of Aid Returned to Program</th>
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</thead>
<tbody>
<tr>
<td>During a Semester</td>
<td>90%</td>
</tr>
<tr>
<td>During the first 10%</td>
<td>75%</td>
</tr>
<tr>
<td>From 11% to 25%</td>
<td>50%</td>
</tr>
<tr>
<td>From 26% to 50%</td>
<td></td>
</tr>
</tbody>
</table>

For example, if a student withdraws at the exact midpoint of the semester, the student would have 50% of his/her tuition charge reversed. Simultaneously, if a student received an institutional scholarship for the semester in the amount of $2,000, 50% or $1,000 of this scholarship would be returned to the respective financial aid program.
Treatment of Title IV (Federal) Aid for Total Withdrawal

The federal policy for return of Title IV funds maintains that a student retains only that portion of federal aid that the student has earned based on time in attendance before withdrawal. The percentage of time that the student attended an academic term determines the amount of federal aid that must be returned to the federal government. This federally mandated policy is independent of Marshall University’s institutional refund policy due to withdrawal. Marshall University is required by federal statute to recalculate federal financial aid eligibility for students who withdraw, drop out, are dismissed, or take a leave of absence prior to completing 60% of the semester or the financial aid payment period. Should the student cease to be enrolled prior to completing 60% of the semester or financial aid payment period, the Office of Student Financial Assistance applies the Federal Return of Title IV funds formula to determine whether any federal financial aid must be returned.

The Federal Return of Title IV formula is calculated as follows:

\[
\text{Total # of Days Student Completes Until Withdrawal/Total # of Days in the Semester or Payment Period}
\]

This formula determines the percentage of the semester completed, which is the same percentage of earned financial aid. Funds are returned to the appropriate federal program based on the percentage of unearned aid using the following formula:

\[
\left(100\% \text{ of the Aid That Could be Disbursed minus the } \% \text{ of Earned Aid}\right) \times \text{Total Amount of Aid That Could Have Been Disbursed}
\]

Federal student aid refunds for graduate students are returned to the following Title IV sources in the following order:

1. Unsubsidized Federal Direct Stafford Loan
2. Subsidized Federal Direct Stafford Loan
3. Federal Perkins Loan
4. Graduate Federal Direct PLUS Loan
5. Federal TEACH Grant

If a student earned less financial aid than was disbursed, Marshall University is required to return the unearned portion of the financial aid to the respective federal student aid programs. In some cases, if the student was issued a federal financial aid refund, he/she may be required to return all or a portion of the federal funds.

If the student is required to return a portion or all of the loan proceeds, the calculated amount would not have to be returned through this calculation, but be repaid according to the loan’s terms.

If a student qualifies for federal aid that has not yet disbursed and less aid is disbursed than earned, the student may receive a late disbursement for the difference.

When a student that has begun attendance fails to earn a passing grade (has a zero GPA) at the end of the semester, Marshall University, for federal student aid purposes, must assume that the student has unofficially withdrawn or dropped out.

If the student has unofficially withdrawn (shows zero earned hours at the end of the semester), 50% of the student’s federal student aid for the term is considered unearned and may result in a reduction of federal aid. However, when Marshall University can document attendance or participation beyond the 60% point in the semester, the student may be able to retain 100% of his/her federal student aid under these circumstances.

Marshall University has an official grading policy that provides instructors with the ability to differentiate between those students who complete the course but failed to achieve the course objectives and those students who did not complete the course. The instructor is required to notify the Director of Student Financial Assistance in the case of the latter.

VOTER REGISTRATION FORMS

Marshall University, as a participant in Federal Title IV Student Aid programs, is required to advise you that voter registration forms are available online at www.sos.wv.gov/elections/voterinformation/pages/default.aspx.

For additional financial aid information, please contact the Office of Student Financial Assistance, 1 John Marshall Drive, Old Main Room 116, Huntington, WV 25701. Telephone 304-696-3162; Fax: (304)696-3242; E-Mail Address: sfa@marshall.edu.
AFFIRMATIVE ACTION POLICY STATEMENT

It is the policy of Marshall University to provide equal opportunities to all prospective and current members of the student body, faculty, and staff on the basis of individual qualifications and merit without regard to race, color, sex, religion, age, disability, national origin, or sexual orientation. This nondiscrimination policy also applies to all programs and activities covered under Title IX, which prohibits sex discrimination in higher education. Marshall University strives to provide educational opportunities for minorities and women in the graduate student body which reflect the interest, individual merit and availability of such individuals. The University ensures equality of opportunity and treatment in all areas related to student admissions, instructions, employment, placement accommodations, financial assistance programs and other services.

COPYRIGHT COMPLIANCE

Marshall University complies with U.S. copyright law, which prohibits unauthorized duplication and use of copyrighted materials, including written, audio-visual, and computer software materials. Further information is available on Marshall’s website at www.marshall.edu/it/copyright-education.

EDUCATION RECORDS

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. They are:

1. The right to inspect and review the student’s education records within forty five days of the day the University receives a request for access. Students should submit to the registrar, dean, head of the academic department, 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.

2. 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.

3. 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 that 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 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 discloses education records without consent to officials of another school in which a student seeks or intends to enroll.
4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by Marshall University to comply with the requirements of FERPA. The name and address of the office that administers FERPA are:

Family Policy Compliance Office
U.S. Department of Education
600 Independence Avenue, SW
Washington, DC 20202-4605

LIABILITY

Marshall University, as a state agency, cannot assume responsibility for loss of or damage to the personal property of students. Furthermore, the university cannot assume responsibility for personal injury to students.

SEXUAL HARASSMENT POLICY STATEMENT

Sexual Harassment, a form of sex discrimination, is illegal and against the policies of the university. Sexual Harassment involves:

(a) making unwelcome sexual advances or requests for sexual favors or other verbal or physical conduct of a sexual nature a condition of employment or education, or
(b) making submission to or rejection of such conduct the basis for employment or educational decisions, or
(c) creating an intimidating, offensive or hostile environment by such conduct.

Anyone who believes he or she has been the subject of Sexual Harassment should report the alleged conduct immediately to an appropriate university representative or directly to the Office of Equity Programs, located in 206 Old Main.

WEATHER-RELATED AND/OR EMERGENCY CLOSINGS AND DELAYS
(from Board of Governors Policy GA-9, updated June 11, 2013)

Huntington Campus

Generally it is Marshall University’s policy to maintain its normal schedule, even when conditions are inclement. However, that is not always possible.

In those instances when it is necessary to alter the schedule in response to weather conditions, every effort will be made to notify all those affected—students, faculty, staff and the general public—as expeditiously and as comprehensively as possible in the following ways:

• The university subscribes to a third-party service to provide notifications by e-mail, text message, and telephone, referred to as “MU Alert” at Marshall. All students, faculty and staff will be enrolled in the MU Alert database with their university e-mail addresses, and, in the case of faculty and staff, their office telephone numbers. Students, faculty and staff may provide additional contact methods, including those for text messaging and cell phone numbers, through the use of the myMU portal.

In cases of weather-related or other emergency closings and delays, University Communications staff will use all contact points in MU Alert to send notification.

• Television stations in Huntington and Charleston will be notified.

• Radio stations in Huntington and Charleston will be asked to announce the delay or closing.

• Time permitting, newspapers in Huntington and Charleston will be notified. Often, however, decisions must be made after deadlines of newspapers.

NOTE: This section applies only to the Huntington campus and all releases should make it clear that it relates only to the Huntington campus. The weather-related closings policy for the South Charleston campus and other education centers will be managed by the chief administrative officer (as designated by the University president) for the respective location, and all releases should make clear that the release applies only to the affected location. The South Charleston phone number is 746-2500. See the following section for information on South Charleston campus procedures.

Definitions

University Closed: All classes suspended and offices closed.
Classes Cancelled: All classes suspended; offices open.
Delay Code A: Means a delay in the opening of classes BUT no delay in the opening of offices. Delays will usually be in the range of one to two hours. Employees are expected to report to work at their normal starting times unless they feel that travel is
unsafe. If an employee feels that he/she cannot travel safely to work, they may charge accrued annual leave for the portion of the workday from 8:00 a.m. (or their normal start time) until their arrival at work.

Delay Code B: Means a delay in the opening of classes AND a delay in the opening of offices. Delays will usually be in the range of one to two hours. Employees do not have to report to their offices until the stated delay time. If they believe they cannot travel to work safely by the stated delay time, they may charge accrued annual leave for the work hours from the stated delay time until they can next report to work.

Class operation under delays: Under both categories of delay, students should go to the class that would begin at the stated delay time or the class that would have convened within 30 minutes of the stated delay time. A two-hour delay means that classes that begin at 10:00 a.m. begin on time. Classes that begin at 9:30 a.m. meet at 10:00 a.m. and continue for the remaining period of that class.

Exceptions with regard to employees: Certain critical and emergency employees may be required to report to work on time or earlier than normally scheduled despite the particular delay code published.

Clarification
Information about closing, cancellations, or delays will ordinarily be disseminated to area radio and television stations. The authoritatively correct statement of the University’s condition (Huntington) is stipulated to be the message on the main page of the website at www.marshall.edu.

Faculty
Once operations are resumed, deans, and departmental chairs must take steps to ensure that faculty meet their scheduled classes or substitutes secured so that class schedules are met.

Decision Making
Decisions on closings and/or delays will be made jointly by the Chief of Staff, Senior Vice President for Academic Affairs and the Senior Vice President for Administration following the consultation with other appropriate officials, including the President. Should only one or two of those three persons be available, the ones available will make the decision.

Every effort will be made to reach decisions to allow time for adequate notification to the news media, and in turn, those affected.

South Charleston campus and Other Education Centers:

General Policy
Because weather conditions can vary substantially, it is possible that classes will be delayed or cancelled at some locations and not at others. The Vice President for Regional Operations, in consultation with staff at other learning centers, will decide on class cancellations.

South Charleston Campus
Since South Charleston classes do not generally meet until late afternoon, an effort will be made to decide about classes by noon. Notification of delays or cancellations at the South Charleston campus will be announced by (a) local media, (b) MU Alert, and (c) University website. Students may check the status of their classes by checking the website.

Point Pleasant, Beckley, Teays Valley and Other Educational Centers
Procedures for delayed openings and class cancellations are similar to those for the South Charleston campus. At Point Pleasant, Beckley, and Teays Valley, local media will provide information regarding cancellations. In addition, each site has a weather hot line: (a) Point Pleasant, 304-674-7239; (b) Beckley, 304-252-0719; (c) Teays Valley, 304-757-7223.

Remote Locations and Other Education Centers
Because there may be classes meeting on an irregular schedule in a geographically dispersed area throughout the semester, decisions about whether to meet during inclement weather will be made by the instructor. Those decisions will be transmitted to students by e-mail or other methods as agreed by students and the instructor.

Definitions
South Charleston Closed: All classes cancelled and offices closed.
South Charleston Classes Cancelled: All classes cancelled. Details provided by site.
South Charleston Delay: A delay in the beginning of non-class activities, e.g. a two-hour delay would mean the normal work day would begin at 10:00 a.m. rather than 8:00 a.m.

MU ALERT
Information on Marshall University’s Emergency Messaging System (MU Alert) can be found on the website at www.marshall.edu/emergency/mualert.
Textbooks for Marshall University graduate courses are available from the Marshall University Bookstore in Huntington. In the case of South Charleston campus or off-campus locations, students may order books by mail, phone, or online at www.marshall.bkstr.com.

The Marshall University Bookstore in Huntington (telephone 304-696-3622 or toll free at 1-800-547-1262) is located at One John Marshall Drive, Huntington WV 25701, in the Memorial Student Center on the Huntington campus. The store is open from 8:00 a.m. to 5:30 p.m. Monday-Thursday, 8:00 a.m. to 5:00 p.m. on Friday, and 10:00 a.m.-2:00 p.m. on Saturday. Summer hours are 8:00 a.m.-5:00 p.m. Monday-Friday. Online orders are encouraged at www.marshall.bkstr.com.

The bookstore accepts checks, MasterCard, VISA, Discover, and American Express. The Point Card is also accepted at the Huntington store. Third-party direct billing is accepted with a purchase order or written authorization from the funding agency. Textbooks may be returned for refund or credit. Contact the store for details. The store also buys books from students at any time.

The Graduate College has established a textbook policy with the objective of minimizing textbook costs to students. This will be accomplished by repurchasing and reselling used textbooks, and using certain basic textbooks for a reasonable number of years, ordinarily not less than two years.

CAREER SERVICES CENTER
Denise Hogsett, Director
www.marshall.edu/career-services

The Career Services Center assists students in all phases of professional development. The career professionals at the center can assist students in the areas of selecting a major, developing a focused resume, acquiring effective interviewing skills, or searching for part-time, internship or entry level employment.

Hours of operation are 8 a.m. to 5 p.m. Monday through Friday. Walk-ins are welcome, but appointments are suggested and may be made by calling 304-696-2370.

The services include:

Online Career Management (Marshall JobTrax) – This employer/student database allows students to build an online credential file of resumes and other documents as well as search for jobs. Employers post jobs, giving students direct contact with local and national companies. They may apply for these positions directly with the company, often by submitting their resumes right from their JobTrax account.

Career Advising and Testing – The center offers career planning assistance that spans all aspects of student professional development, including both online and individual assessment to help the undecided or wavering student with career exploration and major selection.

Workshops/Seminars – The center provides informational workshops each semester on resume development, interview skills, networking and job search. Dates and times can be found on the center’s website each semester.

Resume Development – Experienced staff will guide students in preparing effective and professional resumes.

Job Search Assistance – Career advisors will advise students on the job search process. From part-time employment while attending the university to entry level employment upon graduation, students can obtain the skills necessary to make an effective job search.

Internships – The center works with undergraduate and graduate academic programs to assist students in procuring internships. All students are encouraged to gain work experience with at least one internship before graduation.

Marshall Mentor Network – Allows students to connect with MU alumni and other professionals for career related advice and information. A student can search the database of mentors through his or her JobTrax account and request a mentor that fits his or her major or career goals. Students who have entered the full-time workforce may also sign up through JobTrax to be mentors to undergraduates. More information is available on the Career Services website.

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Career Expos – Students can network with employers through three major career expos each year.

On-Campus Recruiting – The center hosts visiting local, regional and national employers interested in recruiting Marshall University students and graduates.

Website – www.marshall.edu/career-services provides information concerning all career-related services and activities available to students/alumni, faculty, parents and employers.

CHILD DEVELOPMENT ACADEMY
www.marshall.edu/cda

The Child Development Academy at Marshall University provides child care services to children of Marshall University students, faculty, staff and the greater community. It serves as a location for Marshall University undergraduate and graduate students participating in various clinical experiences as part of their academic program. It is located at 520 22nd Street in Huntington and is open Monday through Friday from 7:30 a.m. to 5:30 p.m.

COUNSELING CENTER
www.marshall.edu/counseling

The Counseling Center is located on the first floor of Prichard Hall and provides free confidential mental health counseling and crisis intervention for students. Students may call 304-696-3111 to schedule an appointment with one of the full time counselors.

DISABILITY SERVICES
Sandra Clements, Coordinator
www.marshall.edu/disabled

A student with a disability may be eligible to receive academic accommodations. It is incumbent upon the student to follow the policy detailed on the university website and to request any academic accommodations through the Office of Disability Services at the beginning of each semester. Students must follow this procedure to ensure they will receive appropriate and reasonable academic accommodations.

GRADUATE STUDENT COUNCIL
www.marshall.edu/gsc

The Graduate Student Council is an organization open to all graduate students. Meetings are designed to discuss problems common to graduate students and propose their administrative solutions. Probably the most attractive aspect of the GSC is its ability to initiate administrative changes favorable to graduate students. GSC appoints representatives to a number of Faculty Senate standing committees and to the Graduate Council. A second and related goal of the GSC is to provide an environment in which contact with graduate students in other disciplines is expanded. Above all, the GSC is concerned with enriching the academic and personal lives of its members. The council can be reached through the Graduate College office on the Huntington Campus.

HIGHER EDUCATION FOR LEARNING PROBLEMS (H.E.L.P.)
www.marshall.edu/help

H.E.L.P. is an individualized tutorial program for undergraduate students who have learning disabilities and/or Attention Deficit Disorder. Assistance with coursework, study skills, note-taking skills, and appropriate accommodations in testing are available. Graduate assistants and master’s-level tutors conduct tutorial sessions. Remediation in reading, spelling, written language, and math is available, via learning disabilities specialists. In addition, assistance is also available for professional students, without a diagnosis, in specialties such as medicine, law, and physical therapy. Our diagnostics program can provide evaluations for MU students as well as those in the community. Application to H.E.L.P. must be made separately from application to the university. For information, including fees, call the H.E.L.P. Center at (304) 696-6252.
HOUSING AND RESIDENCE LIFE
John Yaun, Director
housing@marshall.edu

The Department of Housing and Residence Life is committed to providing a residential experience that supports and enhances students’ learning, personal growth, and academic achievement. We strive to be a residential program that aspires to excellence as a leader in campus living. Our commitment is to student learning, safe residential facilities, engaging and educating our students outside of the classroom, and creating communities of learners and responsible citizens, as well as the academic and personal development and success of our students. For more information about living on the Huntington campus, please contact the Department of Housing and Residence Life by phone at 304-696-6765 or 1-800-438-5391, by e-mail at housing@marshall.edu, or on the Web at www.marshall.edu/housing.

INTERCULTURAL AFFAIRS
Maurice Cooley, Associate Vice President
www.marshall.edu/mcip

Marshall University Intercultural Affairs comprises the Office of the Associate Vice President for Multicultural Affairs, the Center for African American Students, the Lesbian Gay Bisexual Transgender Office and the Women’s Center. Each department is further broken down into individual units responsible for a host of programs and initiatives that contribute to Marshall University Intercultural Affairs’ primary objectives. Intercultural Affairs affirms Marshall’s commitment to an environment of teaching and learning which recognizes and welcomes diversity of race, disability, color, sex, sexual orientation, age, religion, national origin, marital status, political and ethnic backgrounds. Consistent with its awareness of different people, backgrounds and cultures, Intercultural Affairs is committed to developing the potential of all students by creating and maintaining an environment that promotes and fosters a multicultural, international, global community. Intercultural Affairs is organized to provide underrepresented populations with programs that enhance knowledge, skills and awareness to function in a complex global society.

MILITARY AND VETERANS AFFAIRS
www.marshall.edu/student-affairs/supportservices/military-veteran-affairs

The Office of Military and Veterans Affairs works with veterans in all branches of the military and with Marshall students who are considering joining the military after receiving their degrees. The office provides services to citizen-soldiers who have completed their service as well as individuals currently serving who wish to take advantage of veterans’ benefits. The office is located in Laidley Hall 138. Telephone is 304-696-5278.

MUONLINE
Monica G. Brooks, Assistant Vice President for Online Learning and Libraries
Online Learning
306 Drinko Library/304-696-6474
www.marshall.edu/muonline
muonline@marshall.edu

MUONLine: The Marshall University online course program is supported by Instructional Design Specialists and a team of well-trained student developers who aid faculty in developing and delivering online courses. In addition to development support, the MUONLine Design center staff also provide regular training and workshop opportunities to faculty who participate in any aspect of online course delivery and support. Blackboard Learn is the electronic course delivery software used to power the online system and its peripheral programs. Housing approximately 600 fully online courses, with up to 250 active sections per term, and serving close to 15,000 students annually, this program strives to meet student needs by facilitating faculty development and supporting quality, affordable, and convenient online courses and programs.

The MUONLine Design Center provides teaching and learning with technology training and online course development support for Marshall University’s faculty and staff. This unit provides the hardware, software, networking and technological assistance and support to assist faculty with online courses and traditional course supplements. Faculty interested in developing an online course or in using an online course section as a supplement to a brick and mortar class, simply submit an online form to launch their project and obtain the checklist and paperwork to initiate the development and review process. Complete information about teaching online and using technology in general for instruction is provided along with a user group seminar series to allow faculty to present and share their online courses materials, lesson plans, and projects.

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Online course development is facilitated and approved by faculty peers. The Faculty Development Committee for Multimedia Instruction (FDCOMI) reports to Academic Affairs in collaboration with the MUOnLine office. Coordinated by a member of the faculty who provides guidance, support, and training, this committee conducts regular online course reviews to ensure that new and existing online faculty meet best practices and technical requirements for delivery. FDCOMI was formed in 2002 with the ongoing responsibility to evaluate newly developed online courses according to a set of standard requirements formulated by the committee. FDCOMI members also coordinate and conduct monthly user group meetings on both campuses to keep faculty apprised of software developments and additions, teaching-learning with technology strategies, and online teaching tools, techniques, and tips. With over 300 faculty involved in the program in some way, the committee is an excellent venue for dissemination of distance education delivery development at the local and national level.

Every Marshall class offered receives an online course section in MUOnLine. The learning management system and its peripherals are supported by Blackboard Managed Hosting Services which includes a solid disaster recovery plan. In recent years, the proliferation of mobile devices has required that Information Technology adapt and/or implement mobile solution for online course content delivery and student-professor communication. In addition to Mobile Blackboard services, the university provides a mobile app that provides current content regarding course schedules, campus maps, available library computers, university news, sports, iTunesU, library databases, journals, and Ask a Librarian live chat research services to mobile device users.

Hybrid course development and the delivery of traditional courses online in real time are also recent priorities for the MUOnLine team. More and more students are demanding that courses be delivered via Blackboard Collaborate so they may have the flexibility of joining classes from the comfort and convenience of their homes or offices. In some instances, the use of this technology for both course delivery and lecture-capture has allowed students to stay at Marshall when jobs have required they travel and/or transfer out-of-state. Faculty and students have also shared stories in which a temporary illness, opportunity to travel abroad, or even inclement weather has necessitated the use of Blackboard Collaborate to retain business continuity of a class in a given semester. Since 2008, new pedagogical techniques and best practices have been incorporated into faculty training programs. The MUOnLine faculty and staff are regular participants in campus-wide assessment programming and provide technology support and training to faculty and staff through a variety of venues throughout the year.

**Online Course Quality Initiative:** Collaboration with providing faculty training and development with the Center for Teaching and Learning during 2011 helped solidify our decision to launch the Quality Matters (QM) program at Marshall that year. In conjunction with the Higher Education Policy Commission’s Statewide Director of Higher Education e-Learning, Marshall became an institutional subscriber to the nationally recognized Quality Matters program and began providing the “Applying the Quality Matters Rubric” training on the Huntington and South Charleston campuses and online. QM is a faculty-centered, peer review process that is designed to certify the quality of online and blended courses in reference to course design and course outcomes alignment. Adopted by the MU FDCOMI committee as the baseline for internal online course reviews, QM is a leader in quality assurance for online education and has received national recognition for its scalable, peer-based approach and continuous improvement in online education and student learning.

**Copyright Education Program:** Currently, OL&L faculty and staff provide support for a multi-campus copyright education program designed to keep faculty apprised of appropriate use of copyrighted materials provided in a variety of formats in both face-to-face and online courses. Members of the team stay abreast of national shifts in copyright interpretation, field questions from the university community, make referrals to Counsel when appropriate, and provide support for university policies that ensure compliance with Title 17 of the US Code and the TEACH Act.

**Course Designations and Definitions:** “Online course” refers to any distance education course in which 100% of the course content is delivered asynchronously. There are no synchronous, face to face, or on site attendance requirements. Online courses are designated as such in the schedule of courses. Designation: Online Course (OC). “Hybrid course” refers to any distance education course in which a portion of the course is delivered synchronously with scheduled and required online, face to face, or on-site attendance requirements; the remainder of the course is delivered asynchronously.

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**OUTREACH AND CONTINUING STUDIES**

**David J. Pittenger, Interim Associate Vice President for Outreach and Dean of Graduate Studies**

[www.marshall.edu/ocs](http://www.marshall.edu/ocs)

The mission of the Office of Outreach and Continuing Studies (OCS) is to provide a coordinated approach to sustaining and expanding undergraduate, graduate, and professional development educational opportunities for both traditional and non-traditional students in Marshall University’s service region. OCS works closely with all academic departments to ensure that courses meet each department’s academic standards. In addition to serving traditional college students in its off-campus locations, the office also serves adult students who have previously completed a portion of a degree, but did not graduate, via Marshall’s Regents Bachelor of Arts program. West Virginia National Guard personnel and their families may take classes on military bases in pursuit of a Regents BA through OCS.

The Office of Outreach coordinates a program where high school students take college courses while still in high school. Working professionals and traditional students seeking both undergraduate and advanced degrees are supported by class offerings at the following locations: Teays Valley Regional Center, Mid-Ohio Valley Center in Point Pleasant, Beckley Higher Education Center, Southern Mountain Center in Williamson and at Marshall University’s South Charleston campus. Classes
are offered via interactive video links, online (Internet-based), hybrid classes using a combination of live meetings and the Internet, weekend/accelerated formats and traditional 15-week live class sessions. To learn more about Marshall University’s outreach programs visit the website at www.marshall.edu/ocs or contact one of the OCS offices that follow

Regents B.A. Program
Marshall University
One John Marshall Drive
Laidley Hall
Huntington, WV 25755-2050
Tel: 304-696-6400

Mid-Ohio Valley Center
Marshall University
1 John Marshall Way
Pt. Pleasant, WV 25550
Tel: 304-674-7200
Email: movc@marshall.edu

Teays Valley Regional Center
Marshall University
Carriage Point, Suite 101
Hurricane, WV 25526
Tel: 304-757-7223
Email: tvrc@marshall.edu

South Charleston Campus
Marshall University
100 Angus E. Peyton Drive
South Charleston, WV 25303-1600
Tel: 304-746-2030
Email: jsharrah@marshall.edu

PSYCHOLOGY CLINIC
Penny Koontz, Director
www.marshall.edu/psych

The Marshall University Psychology Clinic has been established by the Department of Psychology to serve as a training facility for advanced graduate students enrolled in the clinical psychology program at the university and to provide high quality, low cost, confidential psychological services to individuals on the campus and from the local community.

The student clinicians are advanced graduate students in the Marshall University Clinical Psy.D. program. Student clinicians provide services under the supervision of qualified clinical faculty selected by the Department of Psychology to fulfill supervisory and teaching functions. A variety of services are offered by the clinic. These include individual psychotherapy, psychological assessment, and group psychotherapy, as well as educational workshops and other events. Some faculty also provide services. Although the clinic is not a for-profit venture, nominal fees are charged for some services; psychological counseling services are provided at no charge to students.

RECREATION
www.marshallcampusrec.com

The Marshall Recreation Center, a 123,000-square-foot facility, contains 4 wood gym courts for basketball, volleyball, badminton, and dodge ball; a 37’ climbing wall with bouldering area; outdoor pursuits center with rental equipment area; aquatics center with 3 lap swim lanes, leisure pool, vortex pool and 20 person spa; men’s and women’s locker rooms; family changing areas with lockers; 17,000 square feet of fitness space on the second and third floor with free weights, selectorized machines with LCD televisions; 4 group exercise rooms; a 3 lane 1/7th mile walking/jogging/running track; massage area; fitness assessment room; pro shop; lounge areas and staff offices. Immediately east of the pool is an outdoor, fenced area for sunning and relaxing. The entire facility is accessible for persons with disabilities. The Rec Center is also the largest student employer on campus.

*Policies and fees are subject to change.
SPEECH AND HEARING CENTER
Pamela J. Holland, Director
www.marshall.edu/commdis/mushc
304-696-2985

The Department of Communication Disorders in the College of Health Professions operates the Marshall University Speech and Hearing Center (MUSHC), which provides quality speech, language, and hearing evaluations and treatment services for people of all ages. The center provides services for a variety of communication disorders including, but not limited to, articulation, fluency, voice and resonance, cognitive communication, augmentative and alternative communication, aural rehabilitation, swallowing, and receptive and expressive language. In addition, services for communication differences, such as dialectical differences, are provided. Individual and group therapy sessions are also provided for dialect, pragmatics, and aphasia. Additional programs within the department include the Luke Lee Listening, Language, and Learning Lab (the first oral preschool for deaf and hard of hearing children in West Virginia) and the Scottish Rite Childhood Speech and Language Disorders Program. Services are available for Marshall students, faculty, and staff, as well as the general public. Costs for services may be handled through insurance, private pay, or an educational scholarship program. MUSHC is located in Smith Hall 143. For scheduling call 304-696-3641.

STUDENT CONDUCT
Lisa Martin, Director
www.marshall.edu/student-conduct

For Marshall University to function effectively as an educational institution, students must assume full responsibility for their actions and behavior. Students are expected to respect the rights of others, to respect public and private property, and to obey constituted authority. A student's admission to the university constitutes acceptance of these responsibilities and standards. Failure to adhere to the policies and conduct regulations of the university places the student in violation of the Marshall University Code of Student Rights and Responsibilities and may, therefore, subject the student to disciplinary action. All admitted students are subject to the code at all times while on or about university-owned property, or at university-sponsored events. Anyone may refer a student or student organization suspected of violating the Code of Student Rights and Responsibilities to the Office of Student Conduct.

STUDENT HEALTH SERVICES

Student Health Services are provided by University Physicians and Surgeons Incorporated, an affiliate of the university's School of Medicine. The clinic is located at 1600 Medical Center Drive, Suite 1500, next to Cabell Huntington Hospital, and is open from 8:00 to 10:45 a.m. and 1:00 to 4:00 p.m. Monday through Friday. Summer hours vary. The clinic is closed on Saturday, Sunday, and days that class is not in session.

Student Health Services will be provided on weekdays that class is in session to Marshall University students who present current validated identification cards. Part-time students may be required to pay fees for service. Students enrolled for 5 hours or fewer (regular term) are assessed a charge of $20.00 per office visit* and must pay for Lab or X-Ray.

Services provided include: diagnosis and treatment by a physician, licensed practitioner or physician's assistant; limited routine laboratory and x-ray procedures; and injections for allergies (if vaccines and dosage directions are provided by the physician of the patient and approved by the staff physicians). Prescription medication is provided from a specified formulary at Medical Arts Pharmacy with a maximum $5 co-payment.

Marshall University recommends that all students carry medical insurance and that they take their insurance information with them on Student Health visits. For information on health insurance call Student Health Education Programs at 304-696-4800.

STUDENT RESOURCE CENTER

Memorial Student Center, 2nd Floor/304-696-5810
src@marshall.edu
www.marshall.edu/src

The Student Resource Center supports and enhances the academic, professional and personal goals of Marshall University students by providing opportunities for students to meet with staff to evaluate and help resolve academic and other

*Policies and fees are subject to change.
service-related challenges. When students need help and they don’t know where to go to find the help they need, the Success Specialists can sometimes resolve their concerns or work with other campus staff to find a resolution. Success Specialists are trained to handle questions that range from basic academic advising, registration, career services and coordinating the student’s academic success plan with professional career goals. Student Success Specialists also serve as the advisors on record for undecided students. The SRC is located in the Memorial Student Center.

STUDENTS WITH DISABILITIES
See also Disability Services.

A student with a disability may be eligible to receive academic accommodations. It is incumbent upon the student to follow the policy detailed on the university website at www.marshall.edu/disabled and to request any academic accommodations through the Office of Disability Services at the beginning of each semester. Students must follow this procedure to ensure they will receive appropriate and reasonable academic accommodations.

TESTING CENTER
Vickie Seguin, Director

The Marshall University Testing Center administers the GRE, Praxis I, TOEFL, and various other tests in contract with the Educational Testing Service. For information, call 304-696-2604.

WRITING CENTER
Laura Sonderman, Director
www.marshall.edu/writingcenter

The Writing Center, staffed by graduate and undergraduate students of various majors, provides free writing consultation to all Marshall University students. Tutors help students through the entire writing process, from discussing initial ideas to revising and editing their work. The center is located on the second floor of Drinko Library. Students are encouraged, but not required, to make appointments ahead of time, and may find more information about making appointments on the Writing Center’s website or by calling the Writing Center at 304-696-6254.
Academic Affairs
Gayle L. Ormiston, Provost and Senior Vice President for Academic Affairs
Old Main 200

The Office of Academic Affairs has primary responsibility for supporting and pursuing the academic mission of the university.

SCHOOLS AND COLLEGES

The university functions through these academic units: the College of Arts and Media, the College of Business, the College of Education and Professional Development, the College of Liberal Arts, the College of Science, the Joan C. Edwards School of Medicine, the College of Health Professions, the College of Information Technology and Engineering, the Honors College, the School of Pharmacy, and the Graduate College.

BECKLEY CENTER

Marshall University also operates a center in the Beckley area that is part of the Erma Byrd Higher Education Center in Beaver. It serves primarily graduate students in Beckley, Bluefield, and other nearby areas.

Marshall University Beckley Regional Center
c/o Erma Byrd Higher Education Center
300 University Dr.
Beaver, WV 25813
(304) 256-0266

LIBRARIES
Monica Brooks, Assistant Vice President for Information Technology: Online Learning and Libraries
University Libraries
306 Drinko Library/304-696-6474
library@marshall.edu
www.marshall.edu/library

The Marshall University Library System consists of the John Deaver Drinko Library, the James E. Morrow Library, Health Science Library at the Robert C. Byrd Center for Rural Health, the Hoback Chemistry Library in the Science Building, and the Library and Research Commons on the South Charleston campus. Together, the University Libraries’ holdings support teaching and research needs, which includes close to two million items consisting of numerous subject-specific databases, print and electronic books or periodicals, scores, multimedia resources, government publications, special collections, and microforms.

Access to electronic resources and online research services is done via the University Libraries’ web pages. Each library operates as part of the university system and provides unique service to the clientele and programs with which it is associated. The libraries play an essential role in the educational and research activities of the individual university programs. Using the library as a gateway, students have access to the tools to search multiple resources and obtain materials from a variety of sources. A dynamic interlibrary loan and document delivery program provides materials from other libraries in electronic or print form, often in a matter of days. Courier services also enhance turnaround time and overcome geographical limitations.

The John Deaver Drinko Library is open 24/5 and houses more than 140,000 volumes, current subscriptions, a computer lab, multimedia presentation facilities, an assistive technology center for the visually impaired, faculty and student
instructional technology rooms, and a fully wired auditorium. Circulation, Reference, and Media are located in the Drinko Library, with extensive collections and a team of qualified personnel. The Drinko Library is a state-of-the-art facility which also houses University Computing Services and University Telecommunications.

The James E. Morrow Library, situated between Smith Hall and the Science Building, houses Special Collections, Government Documents, and shelving for close to 300,000 volumes. Special Collections features the University archives, West Virginia Collection of state and regional materials, and the distinctive Hoffman and Blake collections. Government Documents, a federal depository collection, contains more than a million items and provides materials in electronic, microform, and paper formats.

The Health Science Library, specializing in medical resources for the schools of medicine and nursing, maintains a current collection of medical monographs, periodicals and electronic resources. Staff provide a variety of document delivery services and searches on medical-related databases. The library is located in the Robert C. Byrd Center for Rural Health, next to the Cabell-Huntington Hospital on Hal Greer Boulevard.

The Hoback Chemistry Library, consisting of chemistry journals and monographs, is accessible to students and faculty in the Chemistry Department in the Science Building and is maintained by a chemistry faculty member. Access is by arrangement only and handled by department personnel (304-696-2430).

The Library and Research Commons on the South Charleston campus is located in the Robert C. Byrd Academic and Technology Center. Distance students are eligible for library services that are unique to their needs. For details, go to the South Charleston library’s home page at www.marshall.edu/musclibrary. Items held in the libraries on the Huntington campus can be retrieved through a daily courier service and by the electronic transmission of journal articles between the sites.

CENTRAL FOR TEACHING AND LEARNING
Karen McComas, Executive Director
www.marshall.edu/catl

The Center for Teaching and Learning helps faculty enhance the nature and quality of the educational experience of all Marshall students through instructional and career development opportunities. University faculty must be experts in the processes of teaching and learning as well as experts in their disciplines. The activities of the center are designed to encourage innovative and effective teaching methods that will stimulate student learning. The center is composed of the Faculty Development program, the Writing Across the Curriculum program, and the Service Learning program.

CENTRAL FOR INTERNATIONAL PROGRAMS
Tammy Johnson, Executive Director
www.marshall.edu/cip

The Center for International Programs was established in 1993. Its mission is to assist in globalizing Marshall University and the surrounding community through a coordinated effort. The following programs are coordinated by the Center for International Programs: International Students and Scholars Program, Study Abroad Programs, China Projects, and global academic partnerships and agreements.

INFORMATION TECHNOLOGY
Jan I. Fox, Senior Vice President for Information Technology and Chief Information Officer
www.marshall.edu/it

On the Huntington campus the Marshall University Information Technology (IT) administrative offices are located on the third floor of the Drinko Library and the Information Technology Services Desk is located on the first floor. On the South Charleston campus, all computing services are located on the second floor of the Administration Building. The mission of Information Technology is to “provide and create an evolving, innovative and integrated stable information technology environment that enables students, faculty, and staff to achieve the Marshall University goals.”

Information Technology Facilities
Information Technology manages a number of computing facilities that provide access to MUNet-connected workstations for the campus community. Information Technology managed public computers, including those in the Drinko 24-Hour Study Center, will always have the latest versions of software available. Information Technology facilities are currently available in Corbly Hall, Harris Hall, Smith Hall, the basement of the Memorial Student Center, the Drinko Library and Information Technology Center in Huntington and in the administration and academic buildings in South Charleston. All Information Technology facilities provide printing and scanning facilities. Other specialized facilities are available at selected sites.
Information Technology Policies

Policies regarding computer use are available online at www.marshall.edu/itc/policies-procedures.

Computer Purchases

Recommendations on student computer purchases are available online at www.marshall.edu/inforesources.

E-Mail (see also myMU)

New students are automatically assigned a Marshall University e-mail account. NOTE: All official university e-mail will be sent to your Marshall University e-mail address.

Marshall University student e-mail, Office 365, offers the latest web-based communication and collaboration tools available from Microsoft including the ability to create and edit Microsoft Word, PowerPoint, Excel and OneNote documents using your favorite web browser. Students are provided 25 GB storage per mailbox, improved calendar sharing, web conferencing for online meetings with audio and video, desktop sharing, and virtual whiteboard. Full access details are available at www.marshall.edu/inforesources.

Information Security

Recommendations on student computer and information security are available online at www.marshall.edu/infosec.

Information Technology Service Desk

The IT Service Desk is located on the first floor of the Drinko Library on the Huntington Campus and the second floor of the Administration Building on the South Charleston campus.

Additional sites on the Huntington campus include Drinko Library, Corbly Hall, Harris Hall, Smith Hall, Gullickson Hall, and residence halls. Additional sites on the South Charleston campus include the Byrd Academic Center.

You can always get updated information on the main university IT page located at www.marshall.edu/it or by contacting the IT Service Desk at itservicedesk@marshall.edu or by calling 304.696.3200 in Huntington or 304-746-1969 in Charleston. A toll-free number (877-689-8638) is also available.

MUNet and WiFi

MUNet is a fiber optic 10 GigE and 1 GigE backbone connecting all campus buildings throughout the campus. The network provides 10/100/1000M connectivity for voice, video and data across a copper infrastructure. MUNet is linked to the Internet via redundant high-speed digital MPLS service. MUNet can also be accessed from off campus through free virtual private networking (VPN) software available on the IT web site at www.marshall.edu/inforesources/vpn. The same VPN software allows users to connect to the MU WiFi network when on campus in the vicinity of a wireless network access point. Wireless 802.11a/b/g/n connectivity is available throughout campus and current coverage levels are available on the IT website at www.marshall.edu/it/info-for-students.

myMU Portal

The web portal, myMU, lets Marshall students look at their university records and financial information, stay connected with others and make new connections. Using the many tools available on the portal, students can view and update their personal information, register for classes, check grades, get transcripts, pay bills and even apply for financial aid. Course tools allow students to communicate with their instructors and classmates. Students can send and receive e-mail, create their own personal address books and access and manage their personal and course calendars. They can even create special calendars and task reminders using the portal. In addition, it allows students to track their degree progress, their Blackboard course assignments and will warn them of any type of hold on their records. Another function of myMU is group communities, similar to Facebook. Students are able to create, manage and join electronic communities for clubs and groups. The Announcement Channel on the myMU homepage lets students stay up to date with campus announcements, news and messages from their colleges. To use myMU, students must know their Marshall University network (MUNet) login credentials.
ACADEMIC APPEALS
See Academic Rights and Responsibilities of Students.

ACADEMIC COMMON MARKET
Out-of-State Programs at Reduced Tuition
West Virginia residents can pursue academic programs not available within the state through the Academic Common Market (ACM) and through contract programs. Both programs enable West Virginians to enter out of state institutions at reduced tuition rates. Contract programs have been established for study in veterinary medicine, optometry, architecture, and podiatry. ACM provides access to both baccalaureate and graduate programs not otherwise available in West Virginia. The programs are restricted to West Virginia residents who have been accepted for admission to one of the specific programs at designated out of state institutions. For information please contact the Office of Academic Affairs, Old Main 200, (304-696-6690) or the Higher Education Policy Commission. Out-of-state students who have been granted Academic Common Market access to Marshall University should follow the Academic Common Market Procedures available at www.marshall.edu/academic-affairs.

ACADEMIC DISHONESTY
Introduction
As described in the Marshall University Creed, Marshall University is an “Ethical Community reflecting honesty, integrity and fairness in both academic and extracurricular activities.”

Academic Dishonesty is something that will not be tolerated as these actions are fundamentally opposed to “assuring the integrity of the curriculum through the maintenance of rigorous standards and high expectations for student learning and performance” as described in Marshall University’s Statement of Philosophy.

A student, by voluntarily accepting admission to the institution or enrolling in a class or course of study offered by Marshall University accepts the academic requirements and criteria of the institution. It is the student’s responsibility to be aware of policies regulating academic conduct, including the definitions of academic dishonesty, the possible sanctions and the appeal process.

For the purposes of this policy, an academic exercise is defined as any assignment, whether graded or ungraded, that is given in an academic course or must be completed toward the completion of degree or certification requirements. This includes, but is not limited to: Exams, quizzes, papers, oral presentations, data gathering and analysis, practica and creative work of any kind.

Definitions of Academic Dishonesty
Below are definitions of some common types of academic dishonesty. Each instructor may modify the general definition of academic dishonesty to fit the immediate academic needs within that particular course of study, provided the instructor defines, in writing and preferably in the course syllabus, the details of any departure from the general definition.

- **Cheating:** Any action which if known to the instructor in the course of study would be prohibited. This includes:
  - The unauthorized use of any materials, notes, sources of information, study aids or tools during an academic exercise.
  - The unauthorized assistance of a person other than the course instructor during an academic exercise.
  - The unauthorized viewing of another person’s work during an academic exercise.
  - The unauthorized securing of all or any part of assignments or examinations, in advance of submission by the instructor.

- **Fabrication/Falsification:** The unauthorized invention or alteration of any information, citation, data or means of verification in an academic exercise, official correspondence or a university record.
• **Plagiarism:** Submitting as one’s own work or creation any material or an idea wholly or in part created by another. This includes:
  • Oral, written and graphical material.
  • Both published and unpublished work.
  • It is the student’s responsibility to clearly distinguish his/her own work from that created by others. This includes the proper use of quotation marks, paraphrasing and the citation of the original source. Students are responsible for both intentional and unintentional acts of plagiarism.

• **Bribes/Favors/Threats:** Attempting to unfairly influence a course grade or the satisfaction of degree requirements through any of these actions is prohibited.

• **Complicity:** Helping or attempting to help someone commit an act of academic dishonesty

### Sanctions

Sanctions for academic dishonesty may be imposed by the instructor of the course, the department chairperson, or the Academic Dean. Sanctions for academic dishonesty may be imposed even if a student withdraws from an individual course or from the university entirely. The instructor may impose the following sanctions:

• A lower or failing project/paper/test grade;
• A lower final grade;
• Failure of the course;
• Exclusion from further participation in the class (including laboratories or clinical experiences).

The following sanctions may be recommended by the instructor but will need to be imposed by the department chair, academic dean or the Office of Academic Affairs:

• Exclusion from an academic program;
• Academic probation for up to 1 year;
• Academic suspension for up to 1 year;
• Dismissal from the university.

In those cases in which the offense is particularly flagrant or where there are other aggravating circumstances, additional, non-academic, sanctions may be pursued through the Office of Judicial Affairs. A student will be informed in writing, by the instructor or responsible office, of any charges and subsequent sanctions imposed for academic dishonesty (See “Reporting” below). Written notification of academic dishonesty charges (and the inclusion of confirmed charges/sanctions in a student’s records) is designed to inform a student of the potential repercussions of repeat offenses and his/her rights of appeal.

If a student believes that charges of academic dishonesty have been erroneously levied, he/she should appeal such charges in accordance with the process outlined in the following section, “Administrative Steps for Appealing a Final Grade or an Action Based on Academic Performance or Dishonesty.”

Sanctions for repeated academic dishonesty offenses will be imposed by the Office of Academic Affairs after consultation with the appropriate department chairs and deans. A student’s record of academic dishonesty offenses will be maintained throughout his/her enrollment at Marshall University, and the period of time between offenses may have no impact on sanctions for repeated offenses.

A student with a second academic dishonesty offense during his/her enrollment at Marshall University will be academically suspended for a period of time not to exceed one academic year (to include summer terms).

A student with a third academic dishonesty offense during his/her enrollment at Marshall University will be dismissed from the university.

### Reporting

Any time an accusation of academic dishonesty is reported to the Office of Academic Affairs, and a sanction imposed (or a sanction will be imposed with the submission of final grades), a notice should be sent to the Office of Academic Affairs within ten (10) days of the accusation.

Notice of an act of academic dishonesty will be reported to the Office of Academic Affairs through the completion of an “Academic Dishonesty Report Form.” The “Academic Dishonesty Report Form” will include:

• Instructor’s Name
• Course Information (Term, Number, Section)
• Student’s Name
• Student’s University Identification Number
• Brief Description of the Charge
• Date of Accusation
• Brief Description of the Sanction
Instructors are encouraged to give a copy of the “Academic Dishonesty Report Form” to a student accused of an offense. However, within ten (10) days of receipt of the “Academic Dishonesty Report Form” the Office of Academic Affairs will inform the student and the student’s dean of the accusations made, the sanctions prescribed, the repercussions of repeat offenses, and his/her rights of appeal. A copy of the report will go into the student’s college file.

Any subsequent actions taken (additional sanctions imposed, the lessening of sanctions, the withdrawal of accusations, the results of appeals, etc.) should be reported to the Office of Academic Affairs within ten (10) days of the action.

Recording:

The Office of Academic Affairs will maintain a file of academic dishonesty incidents. These will be reported in summary form (no student or faculty names will be included) to the Academic Deans and the Faculty Senate at the end of each academic year.

Administrative Steps for Appealing a Final Grade or an Action Based on Academic Performance or Dishonesty

The following is an administrative guide designed to help students and faculty follow the appeals process as specified in this section of the Graduate Catalog. Students and faculty should also review the policy to ensure understanding of the scope of the appeals, materials required, and rules governing the appeals process.

Final Grade Appeals:

Step 1) Attempt to resolve the matter informally: Within ten (10) days of receiving a final grade the student should contact the instructor to review the grade. The instructor will respond in writing within ten (10) days of meeting with the student. The student may contact the director/coordinator of the graduate program should the instructor not be available or there are extraordinary circumstances requiring urgent action.

Step 2) Submit FORM A (located online at www.marshall.edu/graduate/graduate-student-appeals) to the department/unit head of the department: Within 14 days of receiving notification from Step 1, submit FORM A to the department/unit head in which the grade was issued and the instructor’s response. Note that FORM A lists all materials to be submitted by the student. If the department/unit head was the instructor, submit the materials to the director of graduate studies. The department/unit head will respond in writing within ten (10) of receiving FORM A and required materials.

Step 3) Submit FORM A to the Graduate College Dean: Submit FORM A, required materials, and the responses of the instructor and department/unit head to the Dean of the Graduate College. The Dean of the Graduate College will issue a final non-appealable decision within ten (10) days of receiving FORM A and required materials.

Action based on Academic Performance or Dishonesty Appeals:

Step 1) Attempt to resolve the matter informally: Contact the director/coordinator of graduate studies or department/unit head to review the action taken.

Step 2) Submit FORM B (located online at www.marshall.edu/graduate/graduate-student-appeals) to the Graduate College Dean: Within thirty (30) days of receiving notification of the action, submit FORM B and relevant documents to the Dean of the Graduate College. The Dean of the Graduate College will respond within ten (10) days in writing to the student and official issuing the action.

Step 3) Request a hearing of the Graduate Council Subcommittee on Graduate Student Rights and Responsibilities (the Subcommittee): Submit the response from Step 2, which will include the Graduate College Dean’s Response, to the Graduate College Dean and request a hearing before the Subcommittee. The Graduate Dean will forward all materials to the Subcommittee. The Subcommittee will schedule a hearing and give all parties ten (10) days written notice of the hearing time and location.

Step 4) Hearing of the facts: The members of the Subcommittee will review all materials and allow the graduate student and the identified official the opportunity to review and respond to all evidence as described in official policy. Within ten (10) days of the hearing, the Subcommittee will issue a written response within FORM B and send copies to the student, identified official, and the Provost.

Step 5) Request review of decision from Provost: Within ten (10) days of receiving the response from Step 4, send a written request to the Provost requesting review of the decision. The Provost’s decision shall be final.

ACADEMIC DISMISSAL

Academic Dismissal is termination of student status, including any right or privilege to receive some benefit, recognition, or certification. A student may be academically dismissed from a program and remain eligible to enroll in courses in other programs at Marshall University; or a student may be academically dismissed from the institution and become ineligible to enroll in other courses or programs at Marshall University. The terms of academic dismissal from a program for academic deficiency shall be determined, defined, and published by each academic program. Academic dismissal from a program or from the university may also be imposed for violation of the university policy on academic dishonesty. For additional details, see “Academic Rights and Responsibilities” and the departmental program requirements. A student may also be dismissed if he or
she has not completed the degree within seven years and has not been enrolled during the most recent year. For additional details, see “Time Limitation for Master’s and Ed.S. Degrees.”

**ACADEMIC PROBATION**

Any student who has less than a 3.0 GPA either overall or in his or her current major will be placed on academic probation by the Graduate Dean. Following notification of probation and prior to subsequent registration, students will be counseled by their advisor or the department chair. During this session, the student will be advised of his or her deficiencies and the requirements for removing the deficiencies within the next nine semester hours of enrollment. The student will not be permitted to register without the written approval of the Dean of the Graduate College or the Dean of the College Education and Professional Development. A second counseling session will follow the first semester or term of subsequent enrollment and will be a review of the student’s progress. If probationary status is not removed within a satisfactory time period, the Dean of the Graduate College in consultation with the graduate department will determine if the student is to be retained or recommended for dismissal and what counseling or remediation steps will be required of the student as a condition of retention.

**Medical Students**

Medical School students should consult the appropriate Medical School publications for the description of this sanction.

**ACADEMIC PROGRESS**

Graduate students may enroll in a minimum of 9 and maximum of 12 hours to be considered as enrolled full time. A minimum Grade Point Average of 3.0 is required to be in Good Academic Standing. Therefore, a full-time graduate student is required to complete a minimum of 9 hours with a 3.0 or higher GPA for normal academic progress.

**ACADEMIC RIGHTS AND RESPONSIBILITIES OF STUDENTS**

*(from Board of Governors Policy SA-2)*

The institution and its constituent colleges and schools shall define and promulgate, consistent with the policies, rules and regulations of the Higher Education Policy Commission and the Marshall University Board of Governors, the academic requirements for admission to the institution, for admission to limited enrollment programs and for admission to professional and graduate degree programs (where offered); the criteria for maintenance of satisfactory academic progress, for the successful completion of the program, for the award of a degree or certification, for graduation; the requirements or criteria for any other academic endeavor; and the requirements for student honesty and originality of expression.

A student, by voluntarily accepting admission to the institution or enrolling in a class or course of study offered by the institution, accepts the academic requirements and criteria of the institution. It is the student’s responsibility to fulfill coursework and degree or certificate requirements and to know and meet criteria for satisfactory academic progress and completion of the program.

**Academic Rights**

Concomitant with the academic standards and responsibilities established pursuant to these rules, each student shall have the following academic rights:

- The student shall be graded or have his/her performance evaluated solely upon performance in the course work as measured against academic standards. The student shall not be evaluated prejudicially, capriciously, or arbitrarily. The student shall not be graded nor shall his/her performance be evaluated on the basis of his/her race, color, creed, sex or national origin.
- Each student shall have the right to have any academic penalty, as set out in Section 4.2 of these rules below and more specifically defined by his/her institution, reviewed.
- Each student shall have access to a copy of the college or university catalog or program brochure in which current academic program requirements are described (e.g., required courses, total credit requirements, time in residence requirements, special program requirements, minimum grade point average, probation standards, professional standards, etc.). Students have the right to receive from the instructor written descriptions of content and requirements for any course in which they are enrolled (e.g., attendance expectations, special requirements, laboratory requirements including time, field trips and costs, grading standards and procedures, professional standards, etc.).
- The instructor of each course is responsible for assigning grades to students enrolled in the course, consistent with the academic rights set out in the preceding sections.
Application of Policy to Students

Student – any person who has been admitted to an institution to pursue a course of study, research, or service, who is currently engaged in an institutionally sponsored activity, and who has some right or privilege to be on the campus or in the facilities of the institution, or to use the same, in connection with study, research, or service, or who yet has some right or privilege to receive some benefit or recognition or certification from the institution, under the rules, regulations, or policies of the Higher Education Policy Commission, the Marshall University Board of Governors or the institution.

A student, as defined in this policy, shall be subject to any applicable penalties for failure to comply with the academic requirements and standards promulgated by the institution and/or its constituent colleges and schools according to these rules. Students are expected to adhere to these academic standards in all academic settings, classrooms, laboratories, clinics and any other activities which are part of academic requirements.

Academic Requirements and Consequences of Failure to Meet Requirements

The institution and its constituent colleges and schools shall define and promulgate the academic requirements, criteria and standards as set out in these rules. Normally, students may finish a program of study according to the requirements under which they were admitted to the program. However, requirements are subject to change at any time, with reasonable notice provided to the students.

A student who fails to meet the academic requirements or standards, including those for academic honesty as defined by the institution and its constituent colleges and schools according to Section 2.1 of these rules, may be subject to one or more of the following penalties:

• A lower grade or failure of the course or exclusion from further participation in the class (including laboratories or clinical experiences), all of which may be imposed by the instructor.

• Academic probation as determined and defined by the institution and its constituent colleges and schools.

• Academic suspension as determined and defined by the institution and its constituent colleges and schools.

• Academic dismissal.

Academic dismissal is defined as termination of student status, including any right or privilege to receive some benefit or recognition or certification. A student may be academically dismissed from a limited enrollment program and remain eligible to enroll in courses in other programs at the institution, or a student may be academically dismissed from the institution and not remain eligible to enroll in other courses or programs at the institution.

A student may appeal any penalty according to the procedures below. Each institution and its constituent colleges and schools shall determine and specify the point at which penalties, excluding those specified in these rules, may be imposed. Each instructor determines the point at which the penalties specified may be imposed. Each institution and its constituent colleges and schools shall determine the method(s), if any, by which a student may correct the condition(s) leading to imposition of these penalties and thereby have them removed.

Appeals

Each institution and its constituent colleges and schools shall establish policies and procedures by which a student may appeal or challenge any academic penalties imposed by a faculty member or by the institution or one (1) of its constituent colleges and schools, including those described in these rules.

Additional procedures may include but not be limited to:

• Appeals of a grade penalty or exclusion from class;

• Appeals of final course grades;

• Appeals of imposition of academic probation;

• Appeals of imposition of academic suspension;

• Appeals of dismissal from undergraduate programs;

• Appeals of dismissal from graduate programs;

• Appeals of dismissal from professional degree programs; and

• Appeals of dismissal from the institution.

Policies and procedures relating to appeals of academic penalties shall be governed by due process and shall include, as a minimum:

• Written notice to the student (1) of his/her failure to meet or maintain an academic standard, (2) of the methods, if any, by which the student may correct the failure, and (3) of the penalty which may be imposed.

• An opportunity for the student to meet with the faculty member(s) or other individual(s) who have judged his/her performance to be deficient, to discuss with these faculty member(s) or other individual(s) the information forming the basis of the judgment or opinion of his/her performance, to present information or evidence on his/her behalf, and to be accompanied at any such meeting by an advisor of his/her choice from the institution. Such advisors may consult with but may not speak on behalf of their advisees or otherwise participate directly in the proceedings, unless they are given specific permission to do so by the individual or committee conducting the appeal.

(continued)
• An opportunity for the student to appeal the decision or judgment of faculty members through the established institutional appeals procedure within thirty (30) calendar days after written notice of the decision or judgment.
• The appeal to the appropriate academic officer or appeals committee is not adversarial in nature; the formal rules of evidence do not apply.
• An opportunity to appeal to the president of the institution or his/her designee within thirty (30) calendar days after the receipt of written notice of the decision or judgment.
• The decision of the president or his/her designee regarding an academic appeal is final.

Policies and procedures relating to appeals of academic dismissal shall be governed by due process and shall include, as minimum in addition to the requirements of the rules above:
• The student may be advised by a person of his/her choice; likewise, the faculty member, academic officer, or committee recommending academic dismissal may have an advisor.
• Witnesses may be called by any of the parties involved.
• A record of the appeal shall be prepared in the form of summary minutes and relevant attachments and will be provided to the student upon request.
• The process for Graduate Student Appeals is further set forth in Administrative Procedure, Student-1, Graduate Student Appeals Process.
• The decision of the president or his/her designee regarding academic dismissal is final.

Publication
All standards, criteria and procedures of the institution shall be published in one or more appropriate institutional publications such as catalogs, student handbooks, academic pamphlets, and handouts. Such requirements are subject to change with reasonable notice provided to the students.

Revised by Marshall University Board of Governors
July 12, 2013

ACCELERATED MASTER’S DEGREE
Marshall University offers an accelerated path through a number of its master’s degree programs. We encourage qualified undergraduates to consider doing an Accelerated Master’s Degree (AMD). Accelerated Master’s Degrees are currently offered in Criminal Justice, Geography, Political Science, Psychology, and Sociology.

Undergraduates accepted to an AMD program can begin taking graduate coursework in their senior year up to a maximum of 12 hours in place of electives. Students reduce the number of hours required to complete the Bachelor’s degree by the number of graduate hours they complete (up to a maximum of 12). They must meet all other degree requirements for their Bachelor’s degree while they work on their Master’s degree. None of the credit hours used for the Bachelor’s degree can be counted toward the Master’s degree.

Graduate coursework/credit will appear ONLY on the graduate transcript, and graduate course grades will be calculated at the graduate level. The undergraduate transcript will indicate that graduate courses were used to fulfill the AMD requirement.

Advantages of an Accelerated Degree
• complete the Bachelor’s degree with up to 12 fewer credit hours, (must meet all other degree requirements for the Bachelor’s degree);
• begin work on the master’s degree during the senior year;
• complete up to 12 graduate credits at undergraduate tuition rates;
• earn a bachelor’s and master’s degree in less time.

Eligibility Requirements for Accelerated Master’s Degree program
• must have completed at least 90 hours toward the bachelor’s degree;
• must have at least a 3.30 overall undergraduate GPA;
• must have at least a 3.30 GPA in the major;
• must meet the admission requirements of the chosen master’s degree program. (Note: AMD programs may have admission requirements that differ from the admission requirements for the regular master’s degree. For example, some departments might waive the required admission test, such as the GRE, GMAT or Miller Analogies. Students should check with the chosen master’s degree program.)
How to Apply

1. During the junior or senior year, eligible students should meet with their undergraduate advisor and the Director of Graduate Studies of their chosen master's degree program to develop an AMD Plan of Study. The Plan of Study form is available from the Graduate College office or online at the Graduate College website. The completed, signed, and approved Plan of Study must be submitted to the Graduate College. Any changes to the AMD Plan of Study must be approved by the undergraduate advisor and Director of Graduate Studies and submitted in writing to the Dean of the Graduate College.

2. The student's acceptance into the AMD program is subject to the approval of the Plan of Study by the Dean of the Graduate College.

3. Students accepted into the AMD program should apply for admission to the chosen master's degree program for the first semester after the bachelor's degree is awarded. Applications should be submitted during the last semester of the senior year.

Requirements for Continuation in the AMD Degree Program

Students must maintain a minimum GPA of 3.0 for all graduate credit toward their master's degree program.

Withdrawal from the AMD

A student may withdraw at any time from an approved AMD program by informing the undergraduate advisor, the Director of Graduate Studies, and the Dean of the Graduate College in writing. A student's status will then revert to the standard undergraduate degree program. Any graduate hours earned must be approved for use in fulfillment of bachelor's degree requirements by the student’s Undergraduate Dean.

From Undergraduate to Graduate Student

Beginning with the semester after the student has earned the bachelor's degree and has been accepted into a master's degree program, the student is enrolled in the Graduate College and is assessed tuition and fees at the graduate rate. All rules regarding graduate education will apply to the student once admitted into the master's degree program.

Master's Programs that offer the AMD

- Criminal Justice
- Geography
- Political Science
- Psychology
- Sociology

ADVISING

Academic advising provides academic guidance, professional identification, and educational enrichment.

At the time of admission, students are assigned an academic program advisor. The student and advisor prepare a Plan of Study during the semester the student is admitted. The program outlined in the Plan of Study should be chosen on the basis of the student's interests and needs and should meet program requirements.

- Any unapproved deviations from the Plan of Study may result in delayed program completion and/or graduation. To amend the Plan of Study the student must consult with his or her academic program advisor. When a student applies for graduation or for certification there must be agreement between the Plan of Study and the record of courses taken by the student.

- If the student writes a thesis or dissertation, the advisor or other designated person directs the student in that work. The advisor usually serves as chair of the committee to conduct the student's comprehensive assessment, assembles questions for any written and oral examination, and reports the result of the examination to the Graduate College.

- A current list of faculty advisors by program can be found online at www.marshall.edu/graduate.

APPLICATION FOR GRADUATION

The application for graduation must be completed and submitted BEFORE or at the beginning of the student's final semester/term, but NOT LATER than the date printed in the University Calendar. For Huntington students, the application must be submitted to the Graduate College Office along with documentation that the diploma fee has been paid (a receipt from the Bursar or a Bursar stamp on the application form). For South Charleston students, the application must be submitted to the Graduate Records Office with a check attached for the appropriate fee or students may call the office to pay with a credit card.

For diploma fee information, see “Special Student Fees” at www.marshall.edu/bursar. Forms for applying for graduation can be obtained from the above offices and online at www.marshall.edu/graduate/current-students/forms-and-information-2.
Students planning to graduate in a particular semester or term must provide all data to be applied toward the graduation to the Graduate College office in Huntington or the Graduate Records office in South Charleston by the advertised last day for the submission of the final grades for the semester or term. This documentation is to include official transcripts from institutions external to Marshall. Said transcripts must be received in the Graduate College Office by the stated deadline. All incomplete grades must be officially removed by the accepted University procedure by this same deadline. Failure on the part of students to comply with this policy will result in their being removed from the graduation list for the term in question.

**NOTE on Transfer Credit**

All transfer credit (and official transcripts) must be sent directly to the Graduate College office in Huntington or the Graduate Records office in South Charleston and received no later than the date for submitting final grades established by the Registrar. Should the transcript not be received by this deadline, the student’s name will be removed from the final graduation list.

**NOTE on Incomplete Grades and PR Grades**

All grades of I must be removed by the end of the term and the Grade Change Form for said grade must be received by the Graduate College office in Huntington or the Graduate Records office in South Charleston no later than the date for submitting final grades established by the Registrar. This also applies to the recording of grades for thesis. Failure to meet this deadline will cause the student’s name to be removed from the final graduation list.

**AREA OF EMPHASIS (see also Changing Area of Emphasis)**

An area of emphasis is a specific subject area of study which has defined course offerings within an approved degree program and major.

Although a student might take continuing education and/or development courses after receiving a graduate degree, Areas of emphasis for any given degree cannot be added after that degree has been obtained.

**ATTENDANCE**

See Class Attendance Policy.

**AUDITING**

Students who wish to register for a course without earning credit may register as an audit. The cost incurred is the same as if the course were taken for credit. Students who complete audit requirements for a course receive a grade of AUD which carries no earned credit hours. Students who wish to audit a class should secure instructor approval before registration. Attendance and other requirements for auditors shall be determined by the instructor of the course being audited. It is the responsibility of the instructor to discuss the requirements of the course with the auditor. It is the prerogative of the instructor to notify the respective Dean and the Registrar’s Office to withdraw the auditor from the class if attendance or other requirements are not met.

Staff Development courses may not be taken under the audit option.

It is not possible to change a registration from credit to audit or audit to credit after the close of the schedule adjustment period at the beginning of a semester or summer term.

**CERTIFICATE PROGRAMS**

Certificate programs are professional continuing education programs of typically 12 to 21 credit hours as designated by the program faculty and available to students admitted under the Certificate/Professional Development and Degree-seeking categories. The main purpose of certificate programs is to provide opportunities to students to complete a cohesive program of coursework that is less than a graduate degree, but which provides advanced training in a specific area. For detailed information about all certificate programs please see [www.marshall.edu/graduate](http://www.marshall.edu/graduate).

**CHANGING AREAS OF EMPHASIS**

To change the area of emphasis in a degree program, submit a Change of Area of Emphasis form for approval. There is no fee for this change. The form is available in the Graduate College office (OM 113) or online at the Graduate College website.

**CHANGING DEGREE PROGRAMS**

To change a degree program, apply for admission to the new program through the regular admission process and pay the appropriate admission fee. Note that admission to another degree program is not automatic. Students are reviewed as applicants to the new program and may be refused admission to the new program.
Students wishing to change degree programs within a department (M.S. to M.A. or MA to M.S.) may make the change by completing the Change of Degree Program form available at www.marshall.edu/graduate/current-students/forms-and-information and in Old Main 113. This process does not require readmission into the program.

CLASS ATTENDANCE POLICY

It is the responsibility of each individual instructor to evaluate the importance of student class attendance. Accordingly, each instructor prepares at the beginning of each semester a written statement in the syllabus setting forth his or her policy for consideration of unexcused absences, make-up examinations, and related matters, which will be in force for the semester. This statement is filed with the chair of the department and a statement of policy on attendance appropriate to each class is made available to students. Absences such as those resulting from illness, death in the family, or institutional activities (those approved by the academic deans, such as debate, artistic performances and athletics) and professional, work-related absences are to be excused when a student reports and verifies them to the instructor. For such excused absences, the student should be reasonably accommodated.

COMMENCEMENT AND GRADUATION

Marshall University observes two Commencement Exercises and four Graduation dates during an academic year. The official graduation dates are:

- last day of final examinations in July;
- last day of final examinations in August;
- last day of final examinations in December;
- day of Commencement for the spring semester.

Commencement Exercises are held twice a year to honor candidates for associate, baccalaureate and advanced degrees (master’s, specialist and doctoral). The Spring ceremony honors students who complete their degree requirements between December and May and is held in May; the Fall ceremony honors students who complete their degree requirements between May and December and is held in December.

Please see the Academic Calendar for official dates.

COMPREHENSIVE ASSESSMENT

In addition to all general requirements for graduate degrees, a comprehensive assessment must be completed. The comprehensive assessment is not solely based upon the specific courses completed, but affords the student an opportunity to demonstrate broad comprehension and synthesis of the major subject. Depending upon the specific requirements of a particular program, the assessment might include such activities as the report and defense of a final project, comprehensive project, portfolio, or capstone project; thesis or dissertation and its defense; or a written comprehensive exam or oral comprehensive exam.

In this policy, the term “Comprehensive Assessment Committee” will be understood to mean any committee executing the student’s final assessment for the degree. For example, a doctoral research project committee would be understood to serve as the final Comprehensive Assessment Committee, if that doctoral research project is considered to be the final comprehensive assessment. For additional information, see specific requirements in the appropriate program section. Responsibility for development, scheduling and administration of the comprehensive assessment rests with the faculty of the student’s program and the appropriate dean.

A student’s performance on the comprehensive assessment is reported to the Office of the Graduate Dean or school dean as follows:

- E  Pass with distinction, indicating superior performance.
- P  Pass, indicating satisfactory performance.
- PC Pass with contingency, which may mean additional requirements for the student as determined by the faculty.
- U  Unsatisfactory, indicating that performance has not met the minimum standards of Marshall University Graduate College.

The decision on the grade is made by a majority vote of the members of the committee, and forwarded by the chair to the Graduate Dean on a form provided by the Graduate College Office. All graduate students must pass a final comprehensive assessment to be eligible for graduation.

Unless more restrictive guidelines are specified in the individual program description in this catalog, no more than two reassessments are permitted. In the event students fail to pass an assessment, they will be placed on probation and, prior to reassessment, must meet with their examining committee to discuss deficiencies and steps to correct them. Students may be assessed only one time a term or semester. When students fail the second reassessment, the department will recommend their dismissal by the Graduate College.
Comprehensive Assessment Committee: Master's Degrees and Education Specialist Degrees

A Comprehensive Assessment Committee must evaluate each student’s performance on the comprehensive assessment. The student’s graduate advisor or graduate program director selects the chair and other members of the Comprehensive Assessment Committee. The committee chair must have at least “Graduate” level membership in the Marshall University graduate faculty. There must be a minimum of two voting members on every Comprehensive Assessment Committee, including the committee chair, except in the case where a national standardized exam is used as the only assessment, in which case only the person serving as chair is needed. Other than the chair, all other assessment committee voting members must have at least “Associate” level membership in the Marshall University graduate faculty. A majority of the student’s Comprehensive Assessment Committee voting members must have appointments within the college of the student’s major.

With the approval of the department or division chair or head and the student’s Comprehensive Assessment Committee chair, other professionally or educationally qualified people may be invited to act as non-voting members of the committee.

In the event of a tie-vote when determining the outcome of the student’s comprehensive assessment, the college or school dean is to select one additional faculty member to break the tie. This additional member must be from the college of the student’s major and must have at least “Graduate” level membership in the Marshall University graduate faculty. This also might require the assessment to be executed a second time with the new committee member’s personal direct involvement.

In the case of written or oral examinations, the chair of the student’s Comprehensive Assessment Committee prepares the questions for the written examination in consultation with other faculty members on the committee, and conducts the oral assessment with the other committee members present. The student may check with the program or department for availability of past assessments or study guides for review.

For any specific student, any exceptions to the above policies must be approved by the dean of the Graduate College on an individual basis. The dean of the Graduate College will notify the chair of Marshall University's Graduate Council of any exceptions which were approved and give the reasons for each exception.

Comprehensive Assessment Committee: Doctoral Degrees (other than Doctor of Medicine degrees)

A final Comprehensive Assessment Committee must evaluate each student’s performance on the doctoral degree final comprehensive assessment. Other preliminary or intermediate assessments vary by program and department policy. The student selects the chair and other members of the final Comprehensive Assessment Committee, subject to the approval of the student’s graduate advisor or program director, and dean. The committee chair must have “Doctoral” level membership in the Marshall University graduate faculty. There must be a minimum of three voting members on every doctoral Comprehensive Assessment Committee, including the committee chair. Other than the chair, all other assessment committee voting members must have at least “Graduate” level membership in the Marshall University graduate faculty. Professional programs may alternatively choose to include a maximum of one external, professionally qualified voting member who would not need graduate faculty membership, and who would serve as one of the three or more voting members. A majority of the student’s Comprehensive Assessment Committee members must have faculty appointments within the college of the student’s major.

In the event that more than one member of the final Comprehensive Assessment Committee votes not to approve the student’s performance as a result of the assessment, the doctoral degree cannot be recommended. At the discretion of a majority of the committee, the student may be given one additional chance to satisfy the committee to the point that no more than one committee member refuses to approve the student’s performance on the comprehensive assessment.

For any student, exceptions to the above policies must be approved by the dean of the Graduate College on an individual basis. The dean of the Graduate College will notify the chair of Marshall University's Graduate Council of any exceptions which were approved and give the reasons for each exception.

COURSE LOAD

A normal course load for graduate students is nine to twelve semester hours in the Fall and Spring semesters, and four to six semester hours in each of the summer terms. Any student seeking registration beyond this limit must request a course overload approval in the Graduate College office.

COURSE NUMBERING

Graduate courses numbered 500-599 may be similar to certain undergraduate 400-499 series courses and may meet jointly. A Marshall University course taken at the 500 level will not meet degree requirements if it was already taken at the 400 level. Courses numbered 600-699 and 700-899 are open only to graduate students. Exceptions to this policy sometimes are granted to seniors with excellent academic records. See Undergraduate Enrollment in Graduate Courses.

CREDIT HOUR

One lecture credit hour is given normally for each 15 classroom contact hours plus 30 hours of outside preparation or equivalent. One laboratory credit hour requires at least 30 hours of laboratory work per one lecture credit plus necessary outside preparation or equivalent. Laboratory experiences are complements to classroom courses that focus on the theory
and principles of the discipline. They are organized activities involving the observation and verification of experiments and experimental techniques.

**DEGREE PROGRAM (See also Changing Degree Programs)**

A degree program is a unified, complementary series of courses or learning experiences that lead to a degree.

**DEGREES**

Marshall University offers programs of study leading to the degrees of:

- Master of Arts, M.A.
- Master of Arts in Teaching, M.A.T.
- Master of Arts in Journalism, M.A.J.
- Master of Business Administration, M.B.A.
- Master of Public Administration, M.P.A.
- Master of Public Health (M.P.H.)
- Master of Science, M.S.
- Master of Science in Engineering, M.S.E.
- Master of Science in Nursing, M.S.N.
- Education Specialist, Ed.S.
- Doctor of Education, Ed.D.
- Doctor of Management Practice in Nurse Anesthesia, D.M.P.N.A.
- Doctor of Pharmacy, Pharm.D.
- Doctor of Philosophy, Ph.D.
- Doctor of Physical Therapy, D.P.T.
- Doctor of Psychology, Psy.D.

**DISMISSAL FROM PROGRAM**

Only grades of A, B, C, CR, or S are acceptable in fulfilling graduate degree requirements on any Plan of Study. Particular programs may require higher performance than C in certain courses.

Exclusively, all courses completed after admission to the current degree program, along with any previous Marshall University coursework to be counted toward the current degree (should be in the student’s Plan of Study), will be used to calculate the student’s GPA—no other courses will be included in the GPA.

A graduate student is required to maintain a minimum cumulative GPA of 3.0 for this coursework. If, upon the completion of 12 hours or thereafter, a degree student’s GPA is less than 3.0, the student may be subject to dismissal from the program. See Grade Point Average and Other Requirements for Graduation for more information.

**DOCTORAL DEGREES**

Since 1992 Marshall University has offered the Ph.D. in Biomedical Sciences. The doctorate in clinical psychology (the Psy.D.) admitted its first class in the Fall of 2002. The Ed.D. features majors in Curriculum and Instruction and Educational Leadership. The Doctor of Management Practice in Nurse Anesthesia is offered by the College of Business in collaboration with the School of Nurse Anesthesia of the Charleston Area Medical Center. In 2011 Marshall University added the Doctor of Physical Therapy (D.P.T.), and Doctor of Pharmacy (Pharm.D.) degrees.

**DROPPING COURSES AND COMPLETELY WITHDRAWING FROM THE UNIVERSITY (See also Medical Withdrawal)**

1. **Dropping of Courses**

   Dropping a course after the schedule adjustment period requires that a drop form bearing the instructor’s signature be submitted to the Registrar’s Office. Students on academic probation must have the Dean’s approval to drop a course.

   Off-campus or night courses may be dropped by mailing a request to drop to the Registrar’s Office. The postmark on such a request will be the official date of withdrawal.

2. **Withdrawal from the University**

   Withdrawal from the university is defined as dropping all classes for which a student is registered.

   (continued)
Withdrawal requires that a withdrawal form be submitted to the Registrar’s Office or that a request for withdrawal be mailed to the Registrar’s Office. It is not possible to withdraw by telephone.

The effective date of withdrawal is the date that the withdrawal form is submitted to the Registrar’s Office. The postmark on mail requests will be the official date of withdrawal.

3. Grades Assigned in Case of Dropping Courses or Withdrawal from the University
   In all cases of dropping courses or withdrawing from the University the instructors will report grades as follows:
   a. A student dropping courses or withdrawing from the University on or before the tenth Friday after the first class day of the regular semester will receive a grade of “W.” For eight-week courses, summer sessions and other courses of varying lengths, the “W” period ends the Friday immediately following the two-thirds point in the course. Exact “W” dates are identified in the annual University Academic Calendar.
   b. A “W” grade (withdrew) will have no bearing on the student’s Grade Point Average.
   c. Students who drop courses without approval, or who do not follow regulations provided in the preceding paragraphs, receive a grade of “F” at the end of the Semester or summer term.

4. Final Date for Dropping or Withdrawing
   The final date for dropping an individual class is the tenth Friday in a regular term. The last date for complete withdrawal from the University is the last day of classes. In both cases, “W” grades are assigned.

5. Military Service
   Men and women called to active duty in the armed services of the United States shall be granted full refund of fees, but no credit, if the call comes before the end of the first three-fourths of the semester or term, and full credit, but no refund of fees, shall be granted if the call comes thereafter; provided, however, that credit as described above will be granted only in those courses in which the student is maintaining a passing mark at the time of departure to military service.
   The term “called to active duty” is herein defined as being called to active duty as the result of the federal activation of a total reserve component, National Guard unit, or any portion thereof which involves a particular student or an individual who is a bona fide member of the reserve component or a National Guard unit. The final grades, both passing and failing, for three-fourths of a semester or more are to be shown on the student’s permanent record.

DUAL DEGREES
   Students who wish to seek admission to more than one degree program, whether sequentially or simultaneously, must complete a separate application, pay the non-refundable application fee, and meet all admission requirements for each academic program for which admission is sought. A maximum of 12 semester hours may be used in common among the degrees, with the approval of the department from which the degrees are sought. Such approval must be obtained in writing and put on file in the Graduate College Office at the time the student begins the subsequent master’s degree program. All applicable coursework must meet time limitations.
   Not all departments may accept a student who is already admitted to another graduate level program. Prior to submitting a Graduate Application for Admission, please check with the academic department(s) of the program(s) in which you are interested.

EDUCATION SPECIALIST
   Marshall University also offers the Education Specialist (Ed.S.) degree in Education and in School Psychology. Under the Ed.S. in Education, students may select areas of emphasis in Adult and Technical Education, Counseling, Curriculum and Instruction, Leadership Studies, Community and Technical College Studies, and Literacy Education. For more information, check the appropriate program description in this catalog, or contact the department offering the degree.

FINAL GRADES
   Marshall University mails final grades only upon student request. Grades will be available online using myMU. Requests to have grades mailed to the permanent address in the student information system may be submitted online using myMU or by submitting a written request to the Office of the Registrar, One John Marshall Drive, Huntington, WV 25755. Written requests must contain name, student number, and signature of the student.
FULL-TIME GRADUATE STUDENT

The West Virginia Higher Education Policy Commission defines a full-time graduate student at Marshall University as carrying nine or more semester hours in a regular semester. During a single summer term a full-time graduate student carries four or more semester hours. This may differ from the definition for fee purposes. (See Financial Information.)

FOUR-PLUS-ONE DEGREE PROGRAMS

See Accelerated Master’s Degree Program.

GRADE INFORMATION AND REGULATIONS

Grade Point Average Defined

Anywhere in this catalog where GPA is discussed, unless otherwise noted, GPA means degree GPA. However, the final transcript GPA includes all graduate-level grades taken at Marshall University at any time, regardless of whether or not they count toward the student’s degree. The GPA is calculated only on graduate coursework taken at Marshall University, and only includes coursework taken within the past seven years, or older for coursework that has been revalidated (see Time Limitations for coursework older than seven years). Exclusively, all courses completed after admission to the current degree program, along with any previous Marshall University coursework to be counted toward the current degree (should be in the student’s Plan of Study), will be used to calculate the student’s GPA—no other courses will be included in the GPA.

Courses with grades of W, PR, NC, CR, S, or U are not computed in the GPA. The grade of I is computed as an F in determining qualifications for graduation.

Grade Point Average Requirements – Good Standing

Grades on coursework may not average lower than 3.0 at any time in the program. All grades of C or less are counted in computing the GPA, but no more than six hours of C and no grades below C may be applied toward a graduate degree. Individual degree programs may have more stringent requirements, so refer to your degree program for information.

A graduate student is required to maintain a minimum cumulative GPA of 3.0 for this coursework. If, upon the completion of 12 hours or thereafter, a degree student’s GPA is less than 3.0, the student may be subject to dismissal from the program.

Grades and Quality Points

The following system of grades and quality points is used for graduate courses:

A For achievement of distinction. Four quality points are earned for each semester hour with a grade of A.
B For competent and acceptable work. Three quality points are earned for each semester hour with a grade of B.
C For below average performance. Two quality points are earned for each semester hour with a grade of C. (No more than six hours of C may be applied toward a graduate degree.)
D For patently substandard work. One quality point is earned for each semester hour with a grade of D. (No grade of D may be applied toward a graduate degree.)
F Failure, given for unsatisfactory work. No quality points.
W Withdrawn on or before the tenth Friday after the first class day of the regular semester or the Friday after the two-thirds point in the summer session. “W” grades are assigned for complete withdrawals.
I An I grade (Incomplete) is given to students who do not complete course requirements because of illness or for some other valid reason (see Incomplete Grade). The I grade is not considered in determining the Grade Point Average. The student has the responsibility of completing the work within the period defined by the instructor. This period is typically the end of the next fall or spring semester, whichever comes earlier, after the semester in which the incomplete grade was assigned. If the work is completed satisfactorily, one of the four passing marks will be awarded. If the work is unsatisfactory or the student fails to complete the work within the allotted time, an F or failing grade will be recorded. All grades remain on the student’s permanent record as originally submitted by the course instructor. Any grade change is added to the permanent record.
CR/NC Recorded as CR (for satisfactory performance) or NC (for unsatisfactory performance) for courses designated by the department or division for credit/no credit grading. CR and NC are not considered in determining the Grade Point Average.
S/U For certain courses, which are so designated in the catalog, every student is given a grade of S, which denotes satisfactory completion of the course, or U, which denotes unsatisfactory work. S and U are not considered in determining the Grade Point Average.
PR Indicates progress on a thesis, dissertation or in select research courses. It is replaced by the final grade upon completion up to established credit limits.

NOTE: At the graduate level, the grades of CR and S are considered the equivalent of the grade of B or higher.
GRADUATE ASSISTANTSHIPS

Many departments offering graduate degrees as well as non-academic units have graduate assistantships available. The amount of the award will vary depending upon the unit offering the assistantship, the residency status of the student, and the time commitment required (10 hours a week or 20 hours a week). All awards include a stipend and a waiver of a portion of the tuition.

Graduate Assistantships are available each semester in teaching, research, or administrative work. Reappointment depends on job performance and academic progress. Please note that a student cannot hold more than one Graduate Assistantship at a time. More information is at this site: www.marshall.edu/graduate/graduate-assistantships-2/graduate-assistantship-overview.

Eligibility:

- Full or Conditional admission to a graduate degree-granting program at Marshall University;
- First-time graduate students must have a minimum undergraduate GPA of 2.75 on a 4.0 scale for all previously completed undergraduate coursework; returning GA’s must have a minimum graduate GPA of 3.0;
- During Fall or Spring semester must be enrolled for at least 9 hours of graduate coursework for a full-time assistantship or at least 3 hours of graduate coursework for a half-time assistantship; during summer terms must be enrolled for at least 4 hours of graduate coursework for a full-time assistantship or at least 2 hours of graduate coursework for a half-time assistantship. NOTE: undergraduate hours are eligible for a tuition benefit when required in a student’s graduate program.

Apply for an assistantship by contacting the department in which you intend to be enrolled.

Note: By an act of Congress, all graduate assistants must submit an approved I-9 form. Payment of the GA stipend will not be authorized until this form is accepted by the Human Resources Office.

Inquiries about graduate fellowships, work-study opportunities, loans, and other forms of financial assistance for graduate students should be directed to the Graduate College Office or to the Office of Student Financial Assistance, Marshall University, Huntington, WV 25755.

GRADUATE STUDENT EMPLOYMENT

Graduate students who are employed should limit their schedules in proportion to the time available for graduate study. As a general practice, the maximum graduate load recommended for a student who is employed full-time is six hours in a regular semester or three hours in a summer term.

GRADUATION REQUIREMENTS FOR MASTER’S DEGREE

The requirements for graduation include completion of the program requirements, successful completion of required comprehensive assessments, a GPA of at least 3.0 (see Grade Information and Regulations), and satisfactory fulfillment of other academic requirements as may be established by the various programs. Additionally, the student must have at least a 3.0 GPA in the major, or in CORE courses of an interdisciplinary program. Only grades of A, B, C, CR, or S are acceptable in fulfilling graduate degree requirements on any Plan of Study. Particular programs may require higher performance than C in certain courses. Grades of W, PR, CR, NC, S, U, and I, are not counted in the GPA calculation, except that an I grade will be calculated as an F (for courses where a letter grade is normally given), NC, or U, depending on the type of course, for determining qualifications for graduation.

Additional Requirements

- All grades of C or less are counted in computing averages, but no more than six hours of C and no grades below C may be applied toward a graduate degree. Individual degree programs may have more stringent requirements, so refer to your degree program for information.
- Up to six hours of CR or S may be included within a degree program but they will not affect the GPA.
- Master’s degree students must complete a minimum of 30 hours of graduate coursework. For programs requiring a thesis, a minimum of 3 and a maximum credit of 6 hours may be granted for the thesis toward the total degree credits, except in chemistry and biological sciences, where up to 12 thesis hours may be applied toward the MS degree. Individual programs may require more than the 30-hour minimum requirement, so students must consult individual program degree requirements.
- A minimum of 18 hours must be earned in the major subject. The major department may optionally require a minor with a minimum of 6 hours in another subject.
- Courses may be taken in a third closely related field if approved by the advisor. In special teacher-education curricula, courses may be distributed among several fields with the approval of the advisor.
- Graduate courses are numbered 500 to 899. Selected courses with 400 series numbers for undergraduate credit may have 500 series numbers for graduate credit. In courses open to both graduate and undergraduate students, graduate students
are required to do more work than undergraduates. This may include more extensive reading, an extra research paper, and other individual work.

- A Marshall University course taken at the 400 level cannot be retaken at the 500 level; it will not be applicable to the master's degree.
- At least one-half of the minimum required hours for the student’s master’s degree must be earned in classes numbered 600 or above.

Meeting minimum requirements in hours of credit does not necessarily constitute eligibility for the degree. The work taken must constitute a unified and approved program in the field. Students may be required to take appropriate national exams in order to graduate.

During the seven-year time limit, Marshall University reserves the right to advise students of their status on academic performance related to the probability of receiving a degree within the prescribed time limit.

**HYBRID COURSES**

*Hybrid course* refers to any distance education course in which a portion of the course is delivered synchronously with scheduled and required online, face-to-face, or on-site attendance requirements; the remainder of the course is delivered asynchronously. Types of hybrid courses include the following delivery modes and are designated in the Marshall University schedule of courses:

- **T-course** is a hybrid course in which 25% or more of the course is delivered synchronously requiring scheduled face-to-face or online attendance (Technology Enhanced: TE).
- **V-course** is a synchronous course in which the faculty member holds live class meetings in person, by technological means, or by both delivery formats simultaneously (Virtual Class: VC).
- **IV-course** is a synchronous course in which the faculty member holds live class meetings using the interactive video system (Interactive Video: IV).

Hybrid courses start and end on the same dates as the regular semester courses and are not assessed an additional per credit hour fee. Hybrid courses also use the Blackboard learning management system to deliver technology-enhanced or virtual courses. Students may visit [www.marshall.edu/muonline](http://www.marshall.edu/muonline) for complete information on hybrid courses, including technical requirements, student readiness, and course listing.

**INCOMPLETE GRADE**

An *I* grade (Incomplete) is given to students who have completed at least three quarters of the work for the course, as determined by the instructor, but who do not complete course requirements for reasons deemed acceptable to the course instructor. The *I* grade is not considered in determining the Grade Point Average, except for graduation. Students must be in good standing in the class prior to requesting an incomplete. The course instructor decides whether or not an incomplete will be granted and specifies in writing what work the student must complete to fulfill the course requirements; this remaining-requirements description is to be submitted with the University’s Incomplete Grade Form, with copies to the student and the instructor. To complete the course, the student has until the end of the next fall or spring semester, whichever comes earlier, after the semester in which the incomplete grade was assigned, or the instructor may establish an earlier deadline. If extenuating circumstances exist, which prevent the student from completing the course in the prescribed time, the incomplete grade may be extended with written approval of the instructor, the instructor’s chair or division head, and the appropriate dean. If the student satisfactorily completes the course in the prescribed time he/she will receive either a letter grade, a *CR* grade, or an *S* grade, depending upon what type of grade is appropriate for the course. If the student fails to complete the course requirements during the stipulated time, the grade of *I* changes to a grade of *F*, *NC*, or *U*, depending on the type of grade appropriate for the course. All grades remain on the student's permanent record as originally submitted by the course instructor, except for *I* grades that have been completed and changed by the instructor. Any grade change is added to the permanent record.

**INDEPENDENT STUDY**

Independent Studies are tutorials, directed and independent readings, directed and independent research, problem reports, and other individualized activities which allow students to explore in depth a specific aspect of a discipline or professional field not covered by the established curriculum. The independent study topic is not covered (or not covered in sufficient depth) by courses inside or outside of the student’s degree program. Written objectives of each independent study course, approved by the chair and dean, must be maintained in departmental files.

**INELIGIBILITY FOR SCHOLASTIC DEFICIENCIES**

See *Academic Rights and Responsibilities of Students*. 
IN-SERVICE TEACHER RESTRICTION

In addition to offering teacher preparation programs, Marshall University is actively involved in the continuing education of all professional teachers. The West Virginia Board of Education has approved a program of continuing education for teachers and school service personnel. Information relative to a teacher’s renewing a professional certificate is available from the certification specialist, College of Education and Professional Development, (304) 696-2857 in Huntington and (304) 746-1909 in South Charleston. The teacher must have approval of his/her renewal advisor prior to enrolling in any course which is to be used for certificate renewal, salary classification, or additional endorsements.

INTERNSHIPS

Internships are supervised, contractual work-study arrangements with professional agencies or institutions.

MAJOR

A major is a field of study within an approved degree program, having its own prescribed curriculum. A degree program may have more than one major.

MASTER’S DEGREES

Marshall University offers a wide array of master’s degrees. The master’s may serve one or more of the following purposes: to provide greater specialization within one’s area of interest; to facilitate licensure in certain fields; to provide access to Education Specialist or doctoral degrees; to support professional advancement, and to promote intellectual growth and personal fulfillment.

MEDICAL WITHDRAWAL

(See also Dropping Courses and Completely Withdrawing from the University)

Mandatory Withdrawal for Medical Reasons (initiated by the university)

1. A student will be subject to a mandatory medical withdrawal if it is determined by the Dean of Student Affairs and/or designee that the student is endangering him/herself or other members of the University community by his/her continued membership in the University community.
2. Through an approved designee, the Dean of Student Affairs reserves the right to request a complete mental or physical evaluation if it is reasonably believed that said student’s behavior or health habits warrant it.
3. The student shall be referred to the appropriate health physician and a written document of evaluation and recommendations will be requested and forwarded to the University designee. The University will then act upon the evaluation and recommendations with regard to the student’s continuation at Marshall University.
4. If evaluation supports or indicates a recommendation for a medical withdrawal from the University, the appropriate Student Affairs office will facilitate the withdrawal.
5. Students will be accorded an informal hearing before the Dean of Student Affairs or a designee to obtain an understanding of the evaluation and rationale for the mandatory withdrawal.
6. In the event that the student declines the opportunity for such an evaluation, a withdrawal for medical reasons may be unilaterally effected by the University.
7. Withdrawal for medical reasons will be done without academic penalty to the student. Fees will be refunded in accordance with university policy.
8. A decision to withdraw may be appealed to the Student Conduct and Welfare Committee or a special subcommittee thereof appointed by the chairperson.

Adopted by Student Conduct and Welfare Committee, December 7, 1984; approved by the President, January 22, 1985.

Request for Medical Withdrawal (initiated by the student)

A student whose health or medical treatment disrupts his or her academic work should review the Class Attendance, Dropping Courses and Completely Withdrawing from the University, and Incomplete Grade policies, and discuss available options with his or her instructors and academic advisor. Depending on the circumstances, the student might: a) request to be absent from one or more class meetings, b) withdraw from courses as needed and receive a grade of W for each course, or c) request to receive a grade of ‘I’ for the courses. As with all withdrawals, the student is still required to complete the degree within the time limit based on his or her entry into the program. If the student is receiving financial aid and is considering a withdrawal, he or she should first review the plan with the staff of Financial Aid.
MINOR

Minors approved by the Graduate Council to which code numbers have been assigned may appear on a graduate student’s transcript if the following conditions are met:

- the student’s advisor approves the minor courses as part of the student’s Plan of Study; and
- the program offering the minor allows it to be designated as the student’s minor. Such permission must be obtained in writing. The department or division chair in the minor program signs the student’s Plan of Study to signify approval.

As of the date of this catalog, the following graduate minors are available: (please see department information for requirements):

- Anthropology
- Classics
- Criminal Justice
- Exercise Science
- Environmental Science
- Geobiophysical Science
- Geography
- History
- Mathematics
- Philosophy
- Psychology
- Safety
- Sport Studies
- Sociology

MULTIPLE DEGREES

See Dual Degrees.

NON-DEGREE STUDENTS

- Persons who desire university instruction without becoming graduate degree candidates may attend as non-degree students, provided they have received a bachelor’s degree from an accepted, regionally accredited undergraduate college or university.
- Before enrolling in a class, non-degree graduate students must obtain permission from the instructor. Students wishing to take courses offered by the College of Business must secure approval of the academic advisor. The fees for attendance as a non-degree student are the same as those set for other graduate students. Non-degree enrollment for graduate courses is not available to persons under suspension by the university.
- A non-degree student who does not hold a master’s or higher degree may take a maximum of 15 semester hours. Permission for non-degree students to register for additional hours beyond 15 can be granted by the Dean of the Graduate College or the Dean of the Graduate School of Education and Professional Development.
- Applicants for non-degree status will complete a Graduate Application for Admission, pay the application fee, and have the registrar send an official transcript showing proof of a bachelor’s degree from an accepted, regionally accredited undergraduate college or university not later than the scheduled time of registration.
- A person holding a graduate degree may take an unrestricted number of additional courses for which he/she has the prerequisites and departmental permission, provided both a transcript showing the undergraduate degree and a transcript showing a master’s degree or higher (both from an accepted, regionally accredited college or university) are submitted. All transcripts must be official and sent to Graduate Admissions directly from the registrar.
- Non-degree graduate students may apply later for admission to degree programs by filing the necessary documents, provided they meet the admission requirements described in the current Marshall University Graduate Catalog. However, work taken as a non-degree student cannot in itself qualify a person for admission as a degree candidate. Only credit approved by the assigned program advisor and the appropriate dean will be counted toward a degree awarded by the university.

ONLINE COURSES (See also Technology-Enhanced Courses)

Online courses are online versions of classes offered on the Marshall campuses in which 100% of the content is delivered asynchronously over the Internet. Online courses are designated as such in the Schedule of Courses (Online Course: OC).

Online courses are delivered with the Blackboard learning management system (LMS). E-mail communication and delivery of assignments, readings, and other course materials between students and instructors occurs digitally within the LMS. There are no required on-campus or real-time meetings and instructors may occasionally use MU e-mail or other forms
of online contact to communicate with students. Online courses generally follow the University calendar for the term in which
they are offered, but individual exceptions may apply.

Students should check the syllabus for each individual class for a beginning and ending date. Students may register for
online courses using myMU during the designated registration periods each term, in person at the Registrar’s Office, or by
mail. Hours of enrollment are reflected in the actual term in which the student is registered. For all verification purposes,
hours of enrollment are counted only in the term in which the student is registered. Note that the withdrawal period for
online courses parallels that of regular courses. A student may withdraw from an individual online course through 2/3 of the
official course length. After that time, only a complete withdrawal from the university is allowed. The refund policy for online
courses also parallels that of regular courses.

Online courses are currently assessed a fee per credit hour for graduate courses, regardless of residency or number of
credit hours the student may be registered for in addition to the online courses. Current online course fees can be located on
the Bursar’s website at www.marshall.edu/bursar. Students may visit www.marshall.edu/muonline for complete information
on online courses, including technical requirements, student readiness, and course listing.

Note: Tuition waivers are not applicable to online courses.

PLAGIARISM

Plagiarism (submitting as one’s own work or creation any oral, graphic, or written material wholly or in part created by
another) is a form of academic dishonesty. Sanctions for academic dishonesty may range from an instructor-imposed sanction
such as a failing grade in the course in which plagiarism has been documented to dismissal from the university. Refer to the
section on Academic Dishonesty for the complete university policy on academic dishonesty.

PLAN OF STUDY

Each degree-seeking student at the master’s or doctoral level is required to develop a “Plan of Study” with his or her
graduate advisor. The Plan of Study is a student’s “blueprint” for completing degree requirements. A student’s certification
for graduation depends on completion of the Plan of Study.

A Plan of Study approved by the department/program must be submitted for approval to the appropriate dean before
the student registers for his or her 12th semester hour. Students who fail to do so will have a hold placed on subsequent
enrollment. If changes are made to the Plan of Study, the student’s advisor must report those changes to the appropriate
dean or to his or her designee. Consult the degree programs section of the catalog for specific information about each
program’s Plan of Study.

PRACTICUM

A practicum is a learning activity that involves the application of previously learned processes, theories, systems, etc.
Generally, credit is assigned on the same basis as that of a laboratory.

PREREQUISITES

The purpose of prerequisites for certain courses is to assure adequate preparation of the student for the information
to be presented in any particular course as well as to insure a coherent, balanced, sequential, and unified set of learning
experiences. Course prerequisites may be either previous undergraduate or graduate preparation. In general, course
prerequisites will not be waived except by written approval of the instructor and program director or dean.

PROBATION

See Academic Probation.

PROGRAM

See Degree Program.

READMISSION

See Time Limitation.

REVALIDATION OF COURSEWORK

See Time Limitation.
SCHEDULE ADJUSTMENT

Schedule adjustment is the adding of courses or dropping of courses, or the changing of class hours or days after a person has registered in any semester or term. The specific Schedule Adjustment Period for any semester or term is specified in the Academic Calendar for that semester or term. After the conclusion of the Schedule Adjustment Period, students are not permitted to add classes or make changes in class hours or days, nor are late registrations permitted except with the permission of the Graduate Dean. Dropping of classes after the Schedule Adjustment Period is discussed in the section Dropping Courses.

SCHOLARSHIPS

For information on available graduate scholarships see www.marshall.edu/graduate.

SECOND MASTER’S DEGREE

See Dual Degrees, Multiple Degrees.

SEMESTER HOUR

See Credit Hour.

SEMINAR

A seminar is a small group of students engaged in advanced study of the original research or some important recent advancements in the field. Seminars are organized under the direction of a faculty member, and credit is allowed according to university regulations for granting semester-hour credit.

SPECIAL TOPICS

Special Topics are experimental courses that may be offered twice by a given department with no prior committee approval. Such courses may satisfy university, college or department requirements toward a given degree and may carry specific requisites.

SENIORS IN GRADUATE COURSES

See Undergraduate Enrollment in Graduate Courses.

STAFF DEVELOPMENT COURSES

School personnel approved by their county school systems may use a departmental form to be admitted in the Staff Development category. Students admitted in this category are restricted to registering for Staff Development classes (560 series) in the College of Education and Professional Development for which they will receive credit/non-credit or satisfactory/unsatisfactory grades. Such classes cannot be used in degree, professional development or licensure programs. Students who wish to mix regular and Staff Development classes must seek regular admission to the Graduate College.

Staff Development courses are offered exclusively as Credit/No Credit and S/U. They may not be taken under the audit option and may not be applied toward the credit hour requirement for a graduate degree.

SYLLABUS POLICY

During the first two weeks of semester classes (3 days of summer term), instructors must provide each student a copy of the course requirements which includes these items:

- Course name and number.
- Instructor’s name, office location, phone, e-mail address and office hours.
- List of all required texts.
- Attendance policy.
- Grading policy.
- Due dates for major projects and exams.
- Course description from most recent catalog
- Course student learning outcomes.
- Schedule of class sessions and assignments.

(continued)
Grid showing how each course student learning outcome will be practiced, and assessed, in the course.

- Link to Official University Policies located on the Academic Affairs website.
- Semester course meets, e.g., Spring 2012
- Time course meets, e.g. M/W/F 1:00-1:50 p.m.
- Course location.

This policy may not apply to the following types of courses: thesis, seminar, problem report, independent study, field work, internships and medical clerkships.

Colleges may develop more detailed requirements concerning the content of the syllabus.

Adopted by Marshall University Board of Governors, August 14, 2012.

In many cases, syllabi will be available on the World Wide Web. In the case of an Independent Study, the student must complete the necessary form, obtain the required signatures, and submit it or a permission to enroll form to the Registrar before enrolling.

TECHNOLOGY-ENHANCED COURSES (T-COURSES)

See Hybrid Courses.

THESIS

Degree program graduate students may elect the thesis option for the number of credits allowed by each program. The thesis advisor and student are guided by departmental requirements and the student’s needs and interests in determining whether he/she is to write a thesis. Students who will profit more by doing additional coursework in lieu of a thesis must earn at least 36 course hours of credit in most programs.

When a student decides to prepare a thesis, written notice and approval must be obtained. Notification of approval will come from the appropriate program director, program coordinator, or dean after review and acceptance of a prospectus by the advisor and a thesis committee. The committee should have the same composition as the examining committee for the comprehensive assessment.

- Students graduating with a thesis must register for a cumulative minimum of 3 credit hours of thesis. The maximum amount of credit that may be earned for the thesis is 6 hours for all departments except biology and chemistry. Research and thesis in those two fields are permitted to a maximum of 12 hours. Students in departments other than chemistry register for thesis 681. Chemistry majors register for research 682. The student continues to register for thesis 681 or research 682, as appropriate, and pay tuition for the number of hours per semester as agreed to between the student and the thesis advisor.
- The thesis advisor reports a mark of PR (progress) for satisfactory work at the end of each term or semester for which the student is registered with the total amount of credit to be allowed.
- The thesis must be prepared according to the instructions provided at the Graduate College website, www.marshall.edu/graduate/current-students/edt, or according to the guidelines (available in the department), which have been approved by the Graduate Dean.
- When the thesis is completed, it is submitted to the advisor and thesis committee for tentative approval. The candidate must then give a presentation open to the academic community based upon the results of the thesis and give a satisfactory defense of the thesis before his/her thesis committee. Upon successful defense of the thesis, the advisor with the concurrence of the committee assigns a grade which applies to all hours earned for the thesis.
- The advisor may report a final grade of F at the end of any semester or term when in his/her opinion, because of irregular reports or unsatisfactory progress, the student should not be permitted to continue to register for research.
- The mark of PR (progress) may be used to indicates progress on a thesis, dissertation, or in select research courses.
- A thesis or dissertation approved by a student’s committee must be submitted electronically. Full instructions for electronic theses and dissertations (ETD’s) are located at: www.marshall.edu/graduate/current-students/edt.
- Submission of the thesis must occur by the dates printed in the academic calendar of the term in which the student intends to graduate. If the student fails to meet these dates, the Graduate Dean may postpone the student’s graduation until the end of the following term.
- The Graduate Dean will review the submitted thesis for style and format; students may be required to make modifications prior to final approval by the Graduate Dean.
Value and Nature of Thesis

The experience of collecting, assembling and interpreting a body of information for a thesis is essential in developing the capacity to do independent work. This is a primary difference between graduate and undergraduate work. For capable graduate students, preparation of the thesis may be of great value. To be urged to write a thesis is a compliment to one’s ability. The presentation and oral defense of the thesis is designed to emphasize the importance of graduate student research in the academic environment and give public credit to the student’s achievements. The objectives of a graduate thesis at the master’s level include development of the ability to plan and execute a scholarly and/or analytical study and the development of expertise in a specific subject area. The thesis should illustrate that a graduate student has:

• Comprehended the essentials of a selected subject area;
• Demonstrated understanding of the problem selected;
• Obtained working knowledge of research techniques appropriate to the Master’s or Ed.S. degree level;
• Demonstrated the ability to write in a professional and scholarly style;
• Produced a study which is of value to the subject field or professional education.

THREE-PLUS-TWO PROGRAMS

See Accelerated Master's Degree Program and/or degree requirements section of the College of Business.

TIME LIMITATION FOR MASTER’S AND ED.S. DEGREES

The time limit for the master’s and Ed.S. degrees is seven years from the date of completion of the earliest course applied toward the degree, including transferred courses.

Time Requirement on Readmission

If a student has not completed his/her Master’s or Ed.S. degree within seven years from the end of the first graduate course to be counted toward his/her degree, and if the student has not been enrolled in a course toward that degree for the most-recent one year when that seven-year limit is reached (meaning the seventh year), then the student will be dropped from the program. To continue to work on that degree, the student must reapply for admission to that degree program through the regular graduate admission process, and pay the appropriate admission fees.

Time Extension

To ensure that a student’s knowledge base is current at the time the degree is awarded, all credit that exceeds the time limit must be revalidated.

When a student requests an extension of time, the advisor and program director or department chair should review the program of study, identify coursework which exceeds the time limit, and make a recommendation for revalidation of expired coursework through one or more of the following options: (NOTE: the current fee for course revalidation is $25/credit hour)

• Option 1: Examination: A validation exam shall be the equivalent to a comprehensive final exam for the course. In most cases, validation must be done by a written exam.
• Option 2: Independent Study: The department or program may elect to design an independent study if no course currently exists by which the student may update course content.
• Option 3: The student may repeat expired coursework.
• Option 4: Additional Hours: The department or program may assign additional hours of coursework to ensure currency of knowledge in rapidly changing content areas.
• Option 5: Portfolio that revalidates objectives of course(s) and degree objectives (may include work experiences, thesis or final project).

Decisions about revalidation of credit are forwarded to the graduate dean of the academic unit for approval. When the student has satisfied the conditions imposed for revalidation, the signed Plan of Study with a memorandum from the chair/program director confirming that the conditions were completed satisfactorily will be forwarded to the graduate dean of the academic unit with the completed application for graduation. The memorandum will include a statement of evidence of completion (e.g., examination, grade report, portfolio).

Outdated courses which are not revalidated will not be used in computing Grade Point Averages for graduation, but they will remain on the record.

Students completing programs in the College of Education and Professional Development which lead to certification should contact the Dean of the College of Education and Professional Development for additional information on time limitations.
TRANSCRIPT

A transcript is a copy of the student’s permanent academic record. An official transcript can only be issued by the Office of the Registrar. Official transcripts cost $8.00 per copy. The Office of the Registrar will process transcript requests within 24 to 48 hours of receipt. Processing time may be extended if current term grades and/or graduate posting are required. Students with outstanding financial, social or other obligations to the university forfeit rights to a transcript until the obligations are resolved. Requests for official transcripts must be sent directly to the Office of the Registrar. Students must sign the request to authorize release of the transcript. Students may obtain unofficial transcripts at no cost in the registrar’s office or the college dean’s office. Unofficial transcripts also may be accessed using the university’s online self-service portal, myMU.

TRANSFER OF GRADUATE CREDITS

A student with an approved Plan of Study may transfer to Marshall University credit earned in graduate coursework completed at another regionally accredited graduate institution provided that the courses are appropriate to the student’s program and the grades earned are B or better or equivalent, and acceptable to the advisor and Graduate Dean.

On the master’s and education specialist level, transfer credits may not exceed 12 hours. For graduate certificate programs, transfer credits may not exceed 6 credit hours.

Graduate credits transferred from other institutions will not become a part of the Grade Point Average recorded on the student’s Marshall University transcript and will simply meet credit hour requirements toward graduation.

All transfer credits must have been earned within a seven-year time limit counted from the date of enrollment in the first graduate course to be applied toward meeting degree requirements of the student’s program.

TRANSIENT STUDENTS

A student who is enrolled at another regionally accredited graduate institution may, upon submission to the Graduate Admissions office an admission application and a letter of good standing from the home university, enroll for Marshall University graduate coursework. This admission is valid for one semester only. The student must submit a new application and letter of good standing each semester he/she wishes to attend.

Normally, up to twelve credit hours of coursework may be transferred back to the home institution.

Permission to transfer credits is arranged, by the student, with the home university. Transient students who wish to register for coursework beyond twelve credit hours at Marshall are required to obtain the approval of Marshall University’s Graduate Dean.

TUITION WAIVER SCHOLARSHIP

A very limited number of Graduate Scholarship Tuition Waivers is available, through competitive application, to Marshall University students and full-time faculty and staff. Priority consideration is given to full-time faculty and staff MU employees.

Tuition waiver application deadlines for each upcoming semester will be posted to the Graduate College website at www.marshall.edu/graduate/graduate-scholarship-tuition-waiver.

Waivers cover all or a portion of System Capital fees and Educational & General fees. Waivers typically are available for one 3 credit graduate course (e-courses excluded). Students are not eligible for waivers in consecutive semesters.

Applications are available in the Graduate College office (Old Main 113) on the Huntington campus, through a student’s academic department office on the South Charleston campus, or online at www.marshall.edu/graduate/graduate-scholarship-tuition-waiver.

Beginning Fall Semester, 2013:

1. Students are eligible for ONE award in 3 consecutive semesters (i.e. a student who receives an award in Fall 2013, is not eligible for another award until Fall 2014; a student who receives an award in Spring 2014 is not eligible for another award until Spring 2015; a student who receives an award in Summer 2014 is not eligible for another award until Summer 2015.)

2. Beginning with the Fall 2013 scholarship waiver period, students are limited to a maximum of 4 awards. (Past awards do not apply).

UNDERGRADUATE STUDENTS IN GRADUATE COURSES

Seniors with a cumulative GPA of at least 2.75 may register for graduate classes (500 and 600 series) after they have received approval from their undergraduate dean, the chair of the department offering the course, and the appropriate graduate college/school dean. Complete applications (available at the Graduate College website, the Graduate College office, Old Main 113, or the Graduate Records office on the South Charleston campus), must be on file in the appropriate graduate dean’s office and permission secured prior to the opening of the term of enrollment. Credit for graduate courses completed as
a senior can be applied to either an undergraduate or a graduate degree at Marshall University but not to both. No more than 12 graduate hours may be taken as an undergraduate.

WITHDRAWAL FROM THE UNIVERSITY

See Dropping Courses and Completely Withdrawing from the University or Medical Withdrawal.

WORKSHOPS

Workshops are highly practical, participatory courses usually designed for advanced students or professionals. They provide experience or instruction in a new technique, theory or development in a given discipline. If credit is granted, appropriate university guidelines will be followed.
College of Arts and Media
Mr. Donald Van Horn, Dean
www.marshall.edu/cam
- Journalism, M.A.J.
- Music, M.A.

Other programs: graduate certificates in Digital Communications, Integrated Strategic Communications, and Media Management

College of Business
Dr. Haiyang Chen, Dean
www.marshall.edu/cob
- Accountancy, M.S.
- Business Administration, M.B.A.
- Health Care Administration, M.S.
- Human Resource Management, M.S.

Other programs: Business Foundations, Graduate Certificate in Management Foundations

College of Education and Professional Development
Dr. Teresa Eagle, Dean
www.marshall.edu/coepd
- Adult and Technical Education, M.S., Ed.S.
- Counseling, M.A., Ed.S.
- Curriculum and Instruction, Ed.S.
- Doctor of Education, Ed.D.
- Education, Early Childhood, M.A.
- Education, Elementary, M.A.
- Education, Secondary, M.A.
- Leadership Studies, M.A., Ed.S.
- Literacy Education, M.A., Ed.S.
- School Psychology, Ed.S.
- Special Education, M.A.
- Teaching, M.A.T.

Other programs: graduate certificates, teacher endorsements
College of Health Professions  
Dr. Michael Prewitt, Dean  
www.marshall.edu/cohp

Athletic Training, M.S.  
Biomechanics, M.S.  
Communication Disorders, M.S.  
Dietetics, M.S.  
Exercise Science, M.S.  
Health Informatics, M.S.  
Nursing, M.S.N.  
Physical Therapy, D.P.T.  
Public Health, M.S.  
Sport Administration, M.S.

Other programs: minors in Exercise Science and Sport Studies, graduate certificates in Family Nurse Practitioner (post master’s), Nursing Administration (post master’s), Nursing Education (post master’s), Dietetic Internship

College of Information Technology and Engineering  
Dr. Wael Zatar, Dean  
www.marshall.edu/cite

Computer Science, M.S.  
Engineering, M.S.E.  
Environmental Science, M.S.  
Information Systems, M.S.  
Safety, M.S.  
Technology Management, M.S.

Other programs: minor in Environmental Science, graduate certificates in Bioinformatics, Information Security

College of Liberal Arts  
Dr. Robert Bookwalter, Dean  
www.marshall.edu/cola

Communication Studies, M.A.  
English, M.A.  
Geography, M.A., M.S.  
History, M.A.  
Humanities, M.A.  
Latin, M.A.  
Political Science, M.A.  
Public Administration, M.P.A.  
Psychology, M.A.  
Doctor of Psychology, Psy.D.  
Sociology, M.A.

Other programs: minors in Classics, Geography, History, Philosophy, Psychology, and Sociology; graduate certificates in Appalachian Studies, Behavioral Statistics, Clinical Psychology, Geospatial Information Science-Basic, Geospatial Information Science-Advanced, Latin, Women’s Studies
College of Science  
Dr. Charles Somerville, Dean  
www.marshall.edu/cos

- Biological Sciences, M.A., M.S.
- Chemistry, M.S.
- Criminal Justice, M.S.
- Forensic Science, M.S.
- Mathematics, M.A.
- Physical and Applied Science, M.S.

Other program: graduate certificate in Bioinformatics

Joan C. Edwards School of Medicine  
Dr. Joseph Shapiro, Dean  
http://musom.marshall.edu

- Biomedical Sciences, M.S., Ph.D.

Other program: graduate certificate in Digital Forensics

School of Pharmacy  
Dr. Kevin Yingling, Dean  
www.marshall.edu/pharmacy

- Pharmacy, Pharm.D.
College of Arts and Media
Mr. Donald Van Horn, Dean
www.marshall.edu/cam

JOURNALISM, M.A.J.
Areas of Emphasis
  Health Care Public Relations
  New Media Studies
Graduate Certificates
  Digital Communications
  Integrated Strategic Communications
  Media Management

Program Description: M.A.J.
Journalism and Mass Communications offers a flexible program designed to accommodate persons with or without an undergraduate degree in journalism and with or without mass communications or professional media experience. Career interests should include one or more of the following: advertising, broadcast journalism, online journalism, print journalism, public relations, radio-televison, sports journalism and journalism education.

Admission Requirements
Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission.

In addition:
1. Applicants who earned an undergraduate GPA of 3.0 or better must score a minimum of 371 on the three combined sections of the GRE.
2. Applicants who earned an undergraduate GPA of 2.5 to 2.99 must score a minimum of 396 on the three combined sections of the GRE.

GRE scores are reported in three areas of verbal, quantitative and analytical writing. The verbal and quantitative sections are scored on a scale of 130 to 170. The analytical writing score is reported on a scale of 0 to 6. Before adding the three sections to determine if the 371 or 396 requirements have been met, convert the analytical writing score using the following scale:

0.5 = 14  4.0 = 113
1.0 = 28  4.5 = 128
1.5 = 43  5.0 = 142
2.0 = 57  5.5 = 156
2.5 = 71  6.0 = 170
3.0 = 85
3.5 = 99

3. International student applicants must have a minimum score of 525 on the paper Test of English as a Foreign Language (TOEFL) or 71 on the Internet-based test, or they must complete English as a Second Language.
Program Requirements

Students are required to complete EDF 517, PSY 517 or another acceptable statistics course (not required if student completed an acceptable statistics course before enrolling in the master’s program); Journalism 600, Proseminar in Mass Communications; Journalism 601, Theory of Mass Communications; and Journalism 602, Mass Communications Research and Methodology, JMC 604, Law and Ethics, and JMC 612, History of American Journalism. In addition students who opt for the thesis track must take JMC 630, Seminar in Media Criticism, and students who opt for the professional track must take JMC 603, Media Management. Completing the core meets the requirement that half of the graduate students' hours be completed at the 600 level. The remainder of each student's program is determined in consultation with and approval from the graduate coordinator.

- International students are not required to take JMC 612, but they must identify, with the approval of the graduate coordinator, an acceptable substitution for their plan of study and for their comprehensive assessment.
- Plan of Study: During the first term students must plan with the graduate coordinator a detailed program of courses and discuss other requirements for the Master of Arts in Journalism degree. A Plan of Study approved by the student’s graduate coordinator must be submitted for approval to the Graduate College Dean before the student registers for his or her 12th semester hour. The Plan of Study is a student’s “blueprint” for completing graduation requirements.
- Students are responsible for learning and for meeting all requirements, guidelines and deadlines included in the Graduate Catalog.
- Professional track students must complete a minimum of 30 graduate hours (plus any undergraduate courses deemed by the graduate coordinator to be necessary) and the comprehensive examination.
- Thesis track students must complete a minimum of 24 graduate hours (plus any undergraduate courses deemed necessary by the graduate coordinator), a six-credit-hour thesis, and the comprehensive examination.
- A minor consisting of a minimum of six hours in one subject area may be approved by the graduate coordinator.
- Students who enter the master’s program without undergraduate preparation in journalism and mass communications and also without any relevant professional experience may be permitted by the graduate coordinator to take all of their coursework in journalism and mass communications.
- A comprehensive written examination is required. The examination is not based exclusively on the specific courses completed but affords the student an opportunity to demonstrate comprehensive knowledge of the major subject. The five-part examination covers proseminar, mass communications theory, research, law and ethics, and journalism and mass communications history. International students may substitute another area of concentration (approved by the graduate coordinator) for history.

Area of Emphasis in Health Care Public Relations

The School of Journalism and Mass Communications offers a flexible graduate program in journalism and mass communications with a health care public relations area of emphasis designed to accommodate persons with or without an undergraduate degree in journalism and with or without mass communications or professional public relations experience. Career interests should include public relations positions in health care organizations or agencies that work on public relations health care campaigns.

Curriculum

Core (required)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>JMC 600</td>
<td>Proseminar in Graduate Studies</td>
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<tr>
<td>JMC 601</td>
<td>Theory of Mass Communication</td>
</tr>
<tr>
<td>JMC 602</td>
<td>Mass Communications Research and Methodology</td>
</tr>
<tr>
<td>JMC 604</td>
<td>Journalism and Mass Communications Law and Ethics</td>
</tr>
<tr>
<td>JMC 612</td>
<td>History of Mass Communication</td>
</tr>
</tbody>
</table>

Other required courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>JMC 620</td>
<td>Public Relations in Health Care</td>
</tr>
<tr>
<td>JMC 539</td>
<td>Public Relations Campaign Management</td>
</tr>
<tr>
<td>JMC 501</td>
<td>Multi-Media Writing (required if no JMC background)</td>
</tr>
<tr>
<td>CLS 105</td>
<td>Medical Terminology or other medical terminology course approved by the graduate coordinator (required if no background in health care)</td>
</tr>
<tr>
<td>EDF or PSY 517</td>
<td>Statistical Methods/Intermediate Behavioral Statistics</td>
</tr>
</tbody>
</table>

Choose the rest from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>JMC 537</td>
<td>Public Relations Writing</td>
</tr>
<tr>
<td>JMC 641</td>
<td>Web/Online Strategies for Journalism and Mass Communications</td>
</tr>
</tbody>
</table>
Area of Emphasis in New Media Studies

The School of Journalism and Mass Communications offers a flexible graduate program in journalism and mass communications with an emphasis in new media studies designed to accommodate persons with or without an undergraduate degree in journalism and with or without mass communications or professional public relations experience.

The M.A.J. in New Media Studies is designed to assist students in migrating to evolving digital communication technology. The degree stresses an interdisciplinary approach to the changing communications environment and accommodates professionals needing to rethink traditional media outlets. Students focus on two branches of learning, a larger branch that incorporates media and storytelling, and a smaller branch of a specific discipline selected by the student. An example could be a student wishing to develop media for the health field. The second branch of electives would then be selected from specific health courses that would benefit his or her Master’s Initiative. A science fiction writer with a B.A. in creative writing may wish to use his or her branch electives to further study a specific science. A journalist may wish to develop a digital brand and choose marketing or business courses for his or her branch elective. Students consult with a faculty advisor to determine the appropriate path of study.

The Master’s Initiative consists of developing a digital product instead of a traditional text-based thesis. The Master’s Initiative combines digital communication, storytelling and design competencies with the branch elective into a fresh and innovative product. Entrepreneurial thinking is encouraged.

The New Media Studies emphasis is a complete online degree designed to enhance careers in journalism, public relations, librarianship, publishing or business for current media professionals who desire to update their knowledge of computer-based tools or pursue the integration of emerging technologies into their work. Non-degree students are encouraged to enroll in individual courses for personal development or certification credits.

Curriculum

Core (18 hours required)

JMC 606 Depth Reporting (3 credit hours)
JMC 604 Law (3 credit hours)
JMC 640 Design Thinking (3 credit hours)
JMC 605 Master’s Initiative Network (3 credit hours)
JMC 682 Master’s Initiative (6 credit hours)

Required JMC Electives (choose 6 hours from the following)

JMC 500 Photojournalism (3 hours)
JMC 562 Web Design for Mass Media (3 hours)
JMC 612 History of Mass Communication (3 hours)
JMC 641 Web/Online Strategies for JMC (3 hours)
JMC 678 Organizational Storytelling (3 hours)
JMC 643 New Media Cultures (3 hours)

Required Branch Electives (choose 6 hours)

With advisor’s approval, select from available Marshall Graduate courses outside of the School of Journalism and Mass Communications program.

Journalism and Mass Communications Graduate Certificates

Journalism and Mass Communications offers graduate certificates in Digital Communications, in Integrated Strategic Communications and in Media Management. Certificates serve students with or without a background in the field but with an interest in newspaper, magazine, television, radio, the internet or converged media, advertising or public relations. Courses are packaged to target specific areas of development that will augment depth of knowledge or skills, help students remain competitive in the job market, advance their careers, or help them pursue personal enrichment. Students may complete a stand-alone certificate or incorporate it into their JMC master’s program or other master’s programs on campus.

Admission to the certificate programs requires:

- official transcript baccalaureate degree from a regionally accredited college or university,
- an application for admission to a certificate program or a Secondary Program Request form if already admitted to a graduate degree program.

(continued)
• at least a 2.5 undergraduate GPA, and
• a 3.0 graduate GPA if already awarded a master’s degree, OR current admission to a Marshall University graduate program

Courses completed in certificate programs can apply to an M.A.J. where appropriate. (Students who want to apply certificate credit to a master’s must meet all admission requirements for the M.A.J. including completion of the GRE.) Students must maintain a 3.0 GPA in all coursework with no more than two C’s. If the student falls below these standards, the student will be placed on academic probation. A student who successfully completes the series of courses will earn a certificate.

Students pursuing the graduate certificate in Digital Communications must complete 15 hours as follows:

**Required courses:**
- JMC 562 Web Design for Mass Media
- JMC 641 Web/Online Strategies for JMC

**Select nine hours from among the following:**
- JMC 500 Photojournalism
- JMC 501 Multi-Media Writing
- JMC 532 Corporate and Instructional Video
- JMC 575 Documentary Journalism
- JMC 606 Depth Reporting

Students pursuing the graduate certificate in Integrated Strategic Communications must complete 15 hours as follows:

**Required courses:**
- JMC 508 Strategic Communications Research
- JMC 515 Advertising Strategy OR JMC 538 – Public Relations Case Studies

**Select nine hours from among the following:**
- JMC 515 Advertising Strategy (if not taken as part of required six hours)
- JMC 525 Advertising Campaigns
- JMC 532 Corporate and Instructional Video
- JMC 537 Public Relations Writing
- JMC 538 Public Relations Case Studies (if not taken as part of required six hours)
- JMC 539 Public Relations Campaigns
- JMC 609 Seminar in Public Relations
- JMC 641 Web/Online Strategies for Mass Communications

Students pursuing the graduate certificate in Media Management must complete 15 hours as follows:

**Required courses:**
- JMC 603 Media Management
- JMC 604 Journalism and Mass Communications Law and Ethics

**Select nine hours from among the following:**
- JMC 510 Magazine Editorial Practice
- JMC 533 Radio-Television Programming
- JMC 536 International Communications
- JMC 550 Contemporary Issues in Radio and Television
- JMC 555 Women and Minorities in the Media
- JMC 632 Public Broadcasting
- JMC 612 History of Mass Communications
- JMC 641 Web/Online Strategies for Mass Communications
MUSIC, M.A.

Areas of Emphasis

- Music Composition
- Music Education
- Music History/Literature
- Music Performance

Program Description

The mission of the School of Music and Theatre is to prepare students for careers in performance, education, and other music-related fields who will make a positive impact on their artistic discipline and on schools and communities. Additionally, the Department will provide enriching experiences for those who will continue their musical activities as an avocation; and to cultivate within the region an increased awareness of the educational, cultural, and aesthetic aspects of music. In fulfilling its mission, the department is committed to the following goals:

- To provide a nurturing environment for musical, academic and personal growth;
- To educate students to think critically, work creatively, communicate effectively, and become technologically literate;
- To function as a visible, responsible and responsive student-centered department dedicated to academic excellence;
- To maintain a faculty of musicians/teachers who, through dedication to excellence, sound pedagogy and effective communication skills, present models that inspire students to achieve their full potential;
- To meet educational, research, and service needs of the region through collaboration with academic and technical institutions, businesses, government agencies, and cultural organizations;
- To contribute to the cultural life of the university and community by providing concerts, recitals, festivals, joint musical ventures and other services;
- To provide leadership within the university and the region in all matters pertaining to music.

The School of Music and Theatre offers the following areas of emphasis within the Master of Arts degree: Music Education, Applied Music Performance, Music History and Literature, and Music Composition. Programs require 32 to 36 hours (thesis or non-thesis options).

Admission Requirements

Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission.

In addition, applicants must:

- Have a bachelor’s degree from an accredited institution with a major in music or the equivalent.
- Submit an application to the School of Music and Theatre, available at www.marshall.edu/music.
- Have an interview with the Department Chair, Graduate Coordinator, and other graduate faculty.
- Have an audition on the major instrument (Performance) or a portfolio of previous academic work and/or professional work (Composition, Music Education, Music History).

Potential graduate students should contact the School of Music and Theatre Graduate Coordinator for more specific information.

Placement Examinations

Students in all graduate music degree areas of emphasis must complete placement examinations in music theory and music history prior to the end of the first semester of study. Remedial classes are available for students needing assistance. Any hours attained in these classes (graduate music history review and graduate theory review) do not count toward degree completion.

Comprehensive Examinations/Applied Study

All graduate students, regardless of area of emphasis, must complete both written and oral comprehensive examinations. Requirements for performance levels in applied music can be found in the School of Music and Theatre Handbook.

Thesis Option

Students may choose the thesis or non-thesis option in select areas of emphasis. The thesis may take the form of a written report, graduate recital, and/or a musical composition as determined by one’s graduate committee. Ordinarily, no more than 3-4 hours may be earned through work on a thesis.
Ensemble Participation
As recommended by their major advisors, all full-time graduate students may be required to participate in a music ensemble during the regular academic year. Credit will be awarded up to the amount listed in each degree program.

Degree Requirements
A Plan of Study approved by the student’s advisor must be submitted for approval to the Graduate College Dean before the student registers for his or her 12th semester hour. The Plan of Study is a student’s “blueprint” for completing graduation requirements.

Master of Arts with Emphasis in Music Education – Thesis Option (32 credits)

Required Courses: (18 credits)
- MUS 622 Styles and Analysis (3)
- MUS 610 History and Philosophy of Music Education (3)
- MUS 611 Music Psychology and Learning Theory (3)
- MUS 616 Curriculum and Administration (3)
- MUS 621 Music Research Methods (3)
- MUS 681 Thesis (3)

Specialization (8-10 credits)
- MUS 511 Introduction to Orff (3)
- MUS 615 Advanced Marching Band Techniques (3)
- MUS 620A Instrumental Techniques and Materials (3)
- MUS 630 Instrumental Conducting (3)
- MUS 604D Choral Literature (2)
- MUS 619A Vocal Pedagogy (2)
- MUS 620B Choral Techniques and Materials (3)
- MUS 629, Choral Conducting (3)
- MUS 670 Current Trends in Music Education (PreK-5) (3)
- MUS 675 Music in Early Childhood (Birth to Age 5) (3)

Electives (2-6 credits) to be selected from:
- Graduate Music Courses
  - 1-4 credits in Applied Music
  - 1-2 credits in ensembles
- Graduate Education courses

Master of Arts with Emphasis in Music Education – Non-Thesis Option (36 credits)

Required Courses: (15 credits)
- MUS 622 Styles and Analysis (3)
- MUS 610 History and Philosophy of Music Education (3)
- MUS 611 Music Psychology and Learning Theory (3)
- MUS 616 Curriculum and Administration (3)
- MUS 621 Music Research Methods (3)

Specialization (12-20 credits)
- MUS 511 Introduction to Orff (3)
- MUS 615 Advanced Marching Band Techniques (3)
- MUS 620A Instrumental Techniques and Materials (3)
- MUS 630A Instrumental Conducting (2)
- MUS 630B Instrumental Conducting (2)
- MUS 604D Choral Literature (2)
- MUS 619A Vocal Pedagogy (2)
- MUS 620B Choral Techniques and Materials (3)
- MUS 629A Choral Conducting (2)
- MUS 629B Choral Conducting (2)
- MUS 670 Current Trends in Music Education (PreK-5) (3)
MUS 675 Music in Early Childhood (Birth to Age 5) (3)

Electives (1-9 credits)

Graduate Music Courses
1-4 credits in Applied Music
1-2 credits in ensembles
Graduate Education courses

Master of Arts with Emphasis in Music History/Literature – Thesis Option (32 credits)

Required Courses (26 credits)

MUS 622 Styles and Analysis
MUS 612 Projects and Problems in Music
MUS 621 Music Research Methods
MUS 640A Music Theory

Music History period courses (12 credits) to be chosen from:

MUS 510 Introduction to World Music
MUS 526 American Music and Its Influences
MUS 650 Music of the Middle Ages
MUS 651 Music of the Renaissance
MUS 652 Music of the Baroque Era
MUS 653 Music of the Classical Era
MUS 654 Music of the Romantic Area
MUS 655 Music ca. 1900 to the Present

MUS 681 Thesis

Electives (6 credits)

Graduate Music Courses
1-4 credits in Applied Music
1-2 credits in ensembles

Students enrolled in the M.A. program in Music History & Literature must demonstrate reading knowledge of German. This requirement can be satisfied by one of the following actions:

1. Pass the music history area German translation exam (administered as needed) with a score of 75% or higher;
2. Successfully complete GER 101, GER 102, GER 203 and GER 204, offered by the Marshall University Department of Modern Languages;
3. Successfully complete the University of Wisconsin Independent Learning course German 391 (German for Reading Knowledge). For more information, see their website: http://continuingstudies.wisc.edu/lsalanguages/german-reading.htm.

Master of Arts with Emphasis in Music History/Literature – Non-Thesis Option (36 credits)

Required Courses (23 credits)

MUS 622 Styles and Analysis (3)
MUS 612 Projects and Problems in Music (2)
MUS 621 Music Research Methods (3)
MUS 640A Music Theory (3)

Music History period courses (12 credits) to be chosen from:

MUS 510 Introduction to World Music
MUS 526 American Music and Its Influences
MUS 650 Music of the Middle Ages
MUS 651 Music of the Renaissance
MUS 652 Music of the Baroque Era
MUS 653 Music of the Classical Era
MUS 654 Music of the Romantic Area
MUS 655 Music ca. 1900 to the Present

Music Electives (7 credits)

Graduate Music Courses
1-4 credits in Applied Music
1-2 credits in ensembles

(continued)
Non-Music Electives (6 credits)
May be chosen in consultation with advisor from the following areas: Art, Classics, English, Humanities, Languages, Philosophy, Religious Studies, Sociology, Theatre

Students enrolled in the M.A. program in Music History & Literature must demonstrate reading knowledge of German. This requirement can be satisfied by one of the following actions:
1. Pass the music history area German translation exam (administered as needed) with a score of 75% or higher;
2. Successfully complete GER 101, GER 102, GER 203 and GER 204, offered by the Marshall University Department of Modern Languages;
3. Successfully complete the University of Wisconsin Independent Learning course German 391 (German for Reading Knowledge). For more information see their website: http://continuingstudies.wisc.edu/lsa/languages/german-reading.htm

Master of Arts with Emphasis in Music Performance (32 credits)
Required Courses (25 credits)
MUS 622 Styles and Analysis (3)
MUS 621 Music Research Methods (3)
MUS 640A Music Theory (3)
Applied Music (8 credits)
MUS 604 Literature Courses in Principal Applied Area (2)
Graduate History Course (3 credits)
MUS 681 Thesis–Recital

Instrumental Track Electives (7 credits)
Graduate Music Courses

Vocal Track Electives (7 credits)
MUS 619A Vocal Pedagogy (2)
2 Graduate Ensemble Credits
Graduate Music Courses

*Voice performance majors with fewer than 2 semesters study of French, German, or Italian must complete 2 semesters of undergraduate study in one of those languages.

** Students must follow departmental policies in preparing and presenting the graduate performance recital.

Master of Arts with an Emphasis in Music Composition (32 credits)
Required Courses (28 credits)
MUS 532 Electronic Music (2)
MUS 622 Styles and Analysis (3)
MUS 621 Music Research Methods (3)
MUS 640A Music Theory (3)
MUS 641 Counterpoint (3)
MUS 655 Music Since 1900 (3)
MUS 645 Composition (8)
MUS 681 Thesis–Recital (3)

Electives (4 credits)
MUS 640B Music Theory (3)
MUS 646 Choral Arranging (3)
MUS 647 Instrumental Arranging (3)
MUS 648 Orchestration (3)
MUS 649 Advanced Jazz Arranging (3)
Additional courses from applied, history, theory, technology
1-4 credits in Applied Music
1-2 credits in ensembles

* Students must follow departmental policies in preparing and presenting the graduate performance recital.
ACCOUNTANCY, M.S.

Program Description
The Master of Science in Accountancy emphasizes skills necessary to succeed in the profession of public accounting. The program requires 30 semester hours of study.

Admission Requirements
Applicants should follow the admissions process described in the Graduate Catalog, or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission.

Applicants must also:

• Have a business-related bachelor’s degree or higher from an AACSB-accredited program with a Grade Point Average (GPA) of 3.0 or higher on a 4.0 scale;

OR

All other applicants may be admitted if they score 500 or better on the Graduate Management Admission Test (GMAT) or if they have an index of at least 1,100 computed by multiplying the undergraduate grade point average by 200 and adding the GMAT score. The minimum acceptable GMAT score is 400 and 15th percentile verbal.

• All applicants must have completed the following accounting foundation courses or equivalents, each with a grade of C or better:
  ACC 311 Intermediate Accounting I
  ACC 312 Intermediate Accounting II
  ACC 318 Cost Accounting
  ACC 341 Accounting Information Systems
  ACC 348 Federal Taxation
  ACC 429 Auditing

Program Requirements
The following courses must be completed:

Functional Studies
  ACC 615 Audit Theory and Practice
  ACC 616 Advanced Income Tax Procedure
  ACC 617 Advanced Controllership
  ACC 618 Accounting Research
  ACC 632 Auditing Accounting Information Systems
  ACC 698 Professional Development and Ethics in Accounting
  LE 691 Government and Business Relationships
  MKT 686 IMC for Professional Services

Accounting electives (any two courses)
  ACC 544 Consulting for CPAs
  ACC 580-583 Special Topics
  ACC 614 Theory of Accounting
  ACC 650 Special Topics
  ACC 660 Independent Study

One of the following courses may be substituted for one accounting elective:
  MGT 680 Entrepreneurship

or other courses approved by the Program Director

In addition, a student with an undergraduate degree other than business must complete a program of study, approved by the Director of the M.S. program, of business subjects to qualify the student to sit for the Uniform CPA Examination and to become licensed as a CPA.
BUSINESS ADMINISTRATION, M.B.A.

Business Administration, M.B.A. (36-Hour Curriculum)

Program Description

Qualified candidates are given an opportunity to earn the Master of Business Administration degree. In keeping with its purpose of providing professional preparation and foundation, the M.B.A. program gives emphasis to building a strong fundamental framework and to developing skills in managerial problem-solving and decision-making.

Program Design

Business policies and procedures, reflecting rapid advancement in technology, are subject to change over time. Methods and practices in current use may be totally inadequate for coming decades. For this reason, greater emphasis is placed on sound general principles and decision-making techniques which provide a base for continuous learning.

To accomplish this purpose, the program involves:

1. A series of Business Foundation courses which enable the student to continue professional development. The foundation courses required will be determined by the M.B.A. Director and/or the Graduate School of Management Academic Advisor.

2. A broad study of functional areas of business and their interrelationships, with emphasis on application of knowledge, concepts, and analytical methods for problem-solving.

The program can be completed in 15-18 months, attending on a full-time basis, depending on the candidate’s previous training.

The M.B.A. program includes:

<table>
<thead>
<tr>
<th>Hours</th>
<th>0-15</th>
<th>36</th>
<th>36-51</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Foundation courses, required as determined by the M.B.A. Director and/or the GSM Academic Advisor</td>
<td>0-15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M.B.A. Functional Studies courses</td>
<td>36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>36-51</td>
<td></td>
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</tbody>
</table>

The university and the College of Business reserve the right, even after the enrollment of students, to make individual curricular adjustments whenever serious deficiencies or needs are found. This may involve additional coursework in speech and/or English whenever necessary. Deficiencies will be determined by the M.B.A. program director. Students may be required to take such courses without credit toward the master’s degree and at their own expense.

Admission Requirements

Full Admission

Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website: www.marshall.edu/graduate/admissions/how-to-apply-for-admission.

Applicants must either have:

1. An undergraduate degree in business from a regionally accredited institution with an undergraduate Grade Point Average (GPA) of 3.0 or higher on a 4.0 scale for all previously completed undergraduate coursework; and completed all of the required Business Foundations courses or their equivalents within seven years of application.

OR

2. An undergraduate degree from a regionally accredited institution with a minimum undergraduate GPA of 2.5 or higher on a 4.0 scale for all previously completed undergraduate university work; and completed the GRE or GMAT and submit official scores OR have a doctoral degree from a regionally accredited institution; and completed all of the required Business Foundation courses or their equivalents within previous seven years of receipt of application.

Note: Applicants may be asked to submit additional material if needed before an admission decision is made.

Generally, more students apply to the M.B.A. program than are accepted each year; therefore, the selection process is competitive.

Provisional Admission

An applicant whose undergraduate GPA is below a 3.0 from a regionally accredited institution and/or is lacking some or all of the foundation requirements may be admitted provisionally until all foundation requirements are completed. Applicants with GPAs below a 3.0 can include letters of recommendation, statement of purpose, resume, or any other material that could make their case to the Admissions Committee. Two reference letters and a resume are the minimum credentials needed. While provisionally admitted, the applicant must maintain a GPA of 3.0 or higher in the required foundation courses. Once all required foundation courses are completed with a 3.0 or higher average, the applicant will be eligible for full admission. Failure to complete the required foundation courses and/or to maintain a 3.0 or higher while provisionally admitted will lead...
to academic probation or dismissal from the program. Required Business Foundation courses are determined by the M.B.A. Director or the GSM Academic Advisor. Note: Applicants may be asked to submit additional material if needed before an admission decision is made. Generally, more students apply to the M.B.A. program than are accepted each year; therefore, the selection process is competitive.

Program Requirements

Plan of Study
The student and his/her advisor shall prepare a Plan of Study which must be approved during the semester in which the student initially enrolls. A plan should be appropriate to meet the needs of the student in his/her chosen field. It shall include the specific courses the student is expected to complete; and shall also list all other requirements of the program or school. Courses listed on the Plan of Study shall be those judged appropriate by the faculty. Subsequent requests for changes in the plan must be formally approved by the M.B.A. Director or the Academic Advisor. Any deviation from the final Plan of Study and/or discrepancy between it and the student’s official transcript will delay graduation. Any Plan of Study that was approved may become void if a student is inactive for one year (unless on an official leave of absence).

Grade Point Average Requirement
A student must have a 3.0 overall GPA in all program coursework, with no more than two C’s in his or her 36 hours of Functional Studies courses. In addition, the student must maintain a cumulative 3.0 GPA in all courses completed after admission to the degree program, along with any previous Marshall University coursework to be counted toward the current degree. This standard must be met for the student to graduate. If the student falls below these standards, then that student shall be placed on academic probation and will be subject to dismissal from the program.

Comprehensive Assessment
Degree candidates are required to complete a comprehensive assessment prior to receipt of the master’s degree. The timing and form of a student’s comprehensive assessment shall be approved in advance by the Director of the Graduate School of Management. The comprehensive assessment is usually a written term paper required within the final, integrated capstone course, MGT 699, “Business Policy and Strategy.”

Course Enrollment Policy
In order to take any 600-level course in the College of Business, students must be enrolled in a graduate program in the college. On an exception basis, a student not enrolled in an LCOB graduate program may take only one 600- level course with the written approval of the Academic Advisor or the MBA Director. Cooperative programs with other departments must by approved by the MBA Director. It is the responsibility of the student to obtain this approval before attempting to register. Additionally, the student must meet the specific course prerequisites. Students who violate this policy will be administratively withdrawn.

Course Requirements
All students are required to complete 36 hours of M.B.A. Functional Studies courses and 0-15 hours of Business Foundation courses, as determined by the M.B.A. Director and/or the GSM Academic Advisor. The 36-hour M.B.A. courses must be completed with a GPA of 3.0 (B or better) with no more than 2 C’s. In addition, each candidate must pass a comprehensive assessment, which normally is a required written term paper within the final, integrated capstone course, MGT 699, “Business Policy and Strategy.”

Business Foundation Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 500</td>
<td>Analytic Methods and Techniques</td>
</tr>
<tr>
<td>ACC 510</td>
<td>Survey of Accounting</td>
</tr>
<tr>
<td>ECN 501</td>
<td>Economic Analysis</td>
</tr>
<tr>
<td>MKT 511</td>
<td>Marketing and Management</td>
</tr>
<tr>
<td>FIN 510</td>
<td>Principles of Business Finance</td>
</tr>
</tbody>
</table>

M.B.A. Functional Studies Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 601</td>
<td>Quantitative Methods for Business</td>
</tr>
<tr>
<td>ACC 613</td>
<td>Profit Planning and Controls</td>
</tr>
<tr>
<td>FIN 620</td>
<td>Financial Management</td>
</tr>
<tr>
<td>MGT 672</td>
<td>Organizational Behavior</td>
</tr>
<tr>
<td>MKT 682</td>
<td>Advanced Marketing Management</td>
</tr>
</tbody>
</table>

Waiver of Admissions Examination: Applicants with an earned doctoral degree from a regionally accredited institution are not required to take the GMAT.

*For those applicants who elect to use only upper-level (latter half) undergraduate coursework to calculate the index, the index requirement shall be 1050 or greater. For those who already possess a master’s degree and elect to use graduate coursework to calculate the index, the index requirement is 1100.
MIS 678 Management Information Systems
ECN 630 Managerial Economics
MGT 674 Production/Operations Management
MGT 699 Business Policy and Strategy
Three elective courses

Area of Concentration
Students who choose to take two elective courses in either Marketing, Finance, Management, Health Care Administration, or Human Resource Management in addition to the functional study courses can receive a concentration in that functional area.

Business Foundations Program
NOTE: The Business Foundations program is not a degree-granting program. Applicants who do not meet the standards for full admission into the 36-hour M.B.A. curriculum may still be admitted into the Business Foundations program. This program is open to those who have no undergraduate background in business. Participation in this program may be used to meet the requirements for admission into the 36-hour M.B.A. curriculum. There is no GMAT requirement or GPA requirement for admission into the Business Foundations program. Those wishing to complete the 36-hour M.B.A. curriculum, however, must meet the requirements for full admission to the M.B.A. Program. No grade below a C will be counted toward the requirements of the M.B.A. program.

Admission Requirements
Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website: www.marshall.edu/graduate/admissions/how-to-apply-for-admission.
A student admitted to the Business Foundations program may not take a 600-level course without the approval of the GSM Academic Advisor.
All required Business Foundation courses or their equivalents must have been completed within seven years of application:

<table>
<thead>
<tr>
<th>Courses</th>
<th>Undergraduate Equivalents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey of Accounting</td>
<td>Principles of Accounting</td>
</tr>
<tr>
<td>Accounting 510</td>
<td>6 Hours</td>
</tr>
<tr>
<td>Economic Analysis</td>
<td>Principles of Economics (Micro/Macro)</td>
</tr>
<tr>
<td>Economics 501</td>
<td>6 Hours</td>
</tr>
<tr>
<td>Finance</td>
<td>Principles of Finance</td>
</tr>
<tr>
<td>Finance 510</td>
<td>3 Hours</td>
</tr>
<tr>
<td>Statistics/Calculus</td>
<td>Business Statistics</td>
</tr>
<tr>
<td>Management 500</td>
<td>3 Hours</td>
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<td>Principles of Marketing</td>
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</table>

Executive M.B.A.
Admissions for the Executive M.B.A. program in the College of Business are currently suspended. For further information, please contact the college at 304-696-2314.

3+2 Program (B.B.A.-M.B.A., HRM or HCA)
The 3+2 Program offered by the College of Business allows students to earn both their Bachelor of Business Administration and Master of Business Administration, Human Resources Management, or Health Care Administration degrees in a total of five years. Students are allowed to double-count up to nine hours of graduate-level courses from the
master's degree toward their bachelor's degree requirements. Please contact the Graduate Academic Advisor for the specific entrance requirements.

**Graduate Certificate in Management Foundations**

This certificate is designed for students with non-business undergraduate degrees. It is envisioned as a generalist overview of graduate business topics. Students desiring a fully developed master’s degree in business should enroll in the MBA program. The Graduate Certificate in Management Foundations will help students to improve their depth of knowledge, remain competitive in the job market, learn new skills, advance their careers, or pursue personal enrichment.

**Admission**

A prospective certificate-only student should apply for admission to Marshall University as a Certificate/Professional Development student and select on the application form the Certificate in Management Foundations.

**Requirements**

The Graduate Certificate in Management Foundations requires 18 graduate credit hours. Students must complete the series of courses with a minimum 3.0 GPA and cannot have more than two grades of C:

A student pursuing a certificate must complete the following courses:

- ACC 510 Survey of Accounting
- ECN 501 Economic Analysis
- MKT 511 Marketing and Management
- MGT 500 Statistics
- FIN 510 Finance
- Elective: HRM 600, HCA 600, MGT 620, ACC 613, MGT 601, LE 691, ECN 630, MIS 678, or other course selected with advisor’s approval

All six courses must be taken; no courses may be waived.

Anyone desiring to enroll in the Management Foundations Certificate program is encouraged to contact the Graduate Academic Advisor for further information.

**HEALTH CARE ADMINISTRATION, M.S.**

**Program Description**

The Master of Science in Health Care Administration is designed to provide individuals with a comprehensive perspective of the health care environment. Emphasis is placed on a global view of health care rather than a targeted sector (such as hospitals, nursing homes, etc.) of the industry. Students completing the program frequently pursue employment opportunities in environments ranging from hospitals to medical practices to health insurers/buyers. While the program attracts individuals from all undergraduate disciplines, many of the students have strong clinical backgrounds and are interested in building their management skills with a focus toward their clinical expertise.

**Admission Requirements**

**Full Admission**

Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website: [www.marshall.edu/graduate/admissions/how-to-apply-for-admission](http://www.marshall.edu/graduate/admissions/how-to-apply-for-admission).

Applicants must either have:

1. An undergraduate degree from a regionally accredited institution with an undergraduate Grade Point Average (GPA) of 3.0 or higher on a 4.0 scale for all previously completed undergraduate coursework.

OR

2. Have a doctoral degree from a regionally accredited institution; and completed all of the required Business Foundation courses or their equivalents within seven years of application.

**Provisional Admission**

An applicant whose undergraduate GPA is below a 3.0 from a regionally accredited institution and/or is lacking some or all of the foundation requirements may be admitted provisionally until all foundation requirements are completed. Applicants with GPAs below a 3.0 can include letters of recommendation, statement of purpose, resume, or any other material that could make their case to the Admissions Committee. Two reference letters and a resume are the minimum credentials needed.
While provisionally admitted, the applicant must maintain a GPA of 3.0 or higher in the required foundations courses. Once all required foundation courses are completed with a 3.0 or higher average, the applicant will be eligible for full admission. Failure to complete the required foundation courses and/or to maintain a 3.0 or higher while provisionally admitted will lead to academic probation or dismissal from the program. Required Business Foundation courses are determined by the M.B.A. Director or the GSM Academic Advisor. Note: Applicants may be asked to submit additional material if needed before an admission decision is made. Generally, more students apply to the H.C.A. program than are accepted each year; therefore, the selection process is competitive.

Program Requirements

Plan of Study

The student and his/her advisor shall prepare a Plan of Study which must be approved during the semester in which the student initially enrolls. A plan should be appropriate to meet the needs of the student in his/her chosen field. It shall include the specific courses the student is expected to complete; and shall also list all other requirements of the program or school. Courses listed on the Plan of Study shall be those judged appropriate by the faculty. Subsequent requests for changes in the plan must be formally approved by the Academic Advisor. Any deviation from the final Plan of Study and/or discrepancy between it and the student’s official transcript will delay graduation. Any Plan of Study that was approved may become void if a student is inactive for one year (unless on an official leave of absence).

Grade Point Average Requirement

A student must have a 3.0 overall GPA in all program coursework, with no more than two C's in his or her program. In addition the student must maintain a cumulative 3.0 GPA in all courses completed after admission to the degree program, along with any previous Marshall University coursework to be counted toward the current degree. This standard must be met for the student to graduate. If the student falls below these standards, then that student shall be placed on academic probation or will be subject to dismissal from the program.

Comprehensive Assessment

Degree candidates are required to complete a comprehensive assessment prior to receipt of the master's degree. The timing and form of a student's comprehensive assessment shall be approved in advance by the Director of the Graduate School of Management. The comprehensive assessment is usually a written term paper required within the final, integrated capstone course, HCA 695, “Field Research in Health Care Management.”

Course Enrollment Policy

In order to take any 600-level course in the College of Business, students must be enrolled in a graduate program in the college. On an exception basis, a student not enrolled in an LCOB graduate program may take only one 600-level course with the written approval of the Academic Advisor or the MBA Director. Cooperative programs with other departments must be approved by the MBA Director. It is the responsibility of the student to obtain this approval before attempting to register. Additionally, the student must meet the specific course prerequisites. Students who violate this policy will be administratively withdrawn.

Course Requirements

- MKT 511 Marketing and Management
- HCA 600 The Health Care System
- HCA 610 Health Care Financial Management
- HCA 615 Health Care Economics
- HCA 653 Integrated Delivery Systems
- HCA 630 Legal Issues in Health Care Management
- HCA 656 Management of Health Care Technology and Information Systems
- MGT 620 Human Resource Management
- HCA 655 Health Care Marketing
- MGT 672 Organizational Behavior
- HCA 695 Field Research in Health Care Management
- Elective (in HCA)

*Waiver of Admissions Examination: Applicants with an earned doctoral degree from a regionally accredited institution are not required to take the GRE or GMAT.*
HUMAN RESOURCE MANAGEMENT, M.S.

Program Description

The Master of Science in Human Resource Management degree program is designed to prepare graduates for research and administrative positions in both public and private sector human resource management offices, labor unions, other employee associations, and agencies concerned with employer-employee relations. Graduate instruction is provided in human resource management; in trade unionism and collective bargaining; and in legal and public policy issues which may relate to any of the preceding. These matters are examined academically within the contexts of social, economic, and political considerations; and are analyzed via the theoretical and empirical contributions of the social/behavioral sciences. The study of human resource management is based upon the knowledge and methods developed in a number of traditional areas of study. The major disciplines represented in the program are economics, psychology, sociology, management, and law. Coursework in related fields is available and encouraged.

Admission Requirements

Full Admission

Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website: www.marshall.edu/graduate/admissions/how-to-apply-for-admission.

Applicants must either have:
1. An undergraduate degree from a regionally accredited institution with an undergraduate Grade Point Average (GPA) of 3.0 or higher on a 4.0 scale for all previously completed undergraduate coursework.
   OR
2. Have a doctoral degree from a regionally accredited institution; and completed all of the required Business Foundation courses or their equivalents within seven years of application.

Provisional Admission

An applicant whose undergraduate GPA is below a 3.0 from a regionally accredited institution and/or is lacking some or all of the foundation requirements may be admitted provisionally until all foundation requirements are completed. Applicants with GPAs below a 3.0 can include letters of recommendation, statement of purpose, resume, or any other material that could make their case to the Admissions Committee. Two reference letters and a resume are the minimum credentials needed. While provisionally admitted, the applicant must maintain a GPA of 3.0 or higher in the required Foundation courses. Once all required foundation courses are completed with a 3.0 or higher average, the applicant will be eligible for full admission. Failure to complete the required foundation courses and/or to maintain a 3.0 or higher while provisionally admitted will lead to academic probation or dismissal from the program. Required Business Foundation courses are determined by the M.B.A. Director or the GSM Academic Advisor.

Note: Applicants may be asked to submit additional material if needed before an admission decision is made. Generally, more students apply to the HRM program than are accepted each year; therefore, the selection process is competitive.

Program Requirements

Plan of Study

The student and his/her advisor shall prepare a Plan of Study which must be approved during the semester in which the student initially enrolls. A plan should be appropriate to meet the needs of the student in his/her chosen field. It shall include the specific courses the student is expected to complete; and shall also list all other requirements of the program or school. Courses listed on the Plan of Study shall be those judged appropriate by the faculty. Subsequent requests for changes in the plan must be formally approved by the Academic Advisor. Any deviation from the final Plan of Study and/or discrepancy between it and the student's official transcript will delay graduation. Any Plan of Study that was approved may become void if a student is inactive for one year (unless on an official leave of absence).

Grade Point Average Requirement

A student must have a 3.0 overall GPA in all program coursework, with no more than two C's in his or her program. In addition the student must maintain a cumulative 3.0 GPA in all courses completed after admission to the degree program, along with any previous Marshall University coursework to be counted toward the current degree. This standard must be met for the student to graduate. If the student falls below these standards, then that student shall be placed on academic probation or will be subject to dismissal from the program.

Comprehensive Assessment

Degree candidates are required to complete a comprehensive assessment prior to receipt of the master's degree. The timing and form of a student's comprehensive assessment shall be approved in advance by the Director of the Graduate School of Management. The comprehensive assessment is usually a written term paper required within the final, integrated capstone course, MGT 696, “Administrative Policy and Strategy.”
Course Enrollment Policy

In order to take any 600-level course in the College of Business, students must be enrolled in a graduate program in the college. On an exception basis, a student not enrolled in an LCOB graduate program may take only one 600-level course with the written approval of the Academic Advisor or the MBA Director. Cooperative programs with other departments must be approved by the MBA Director. It is the responsibility of the student to obtain this approval before attempting to register. Additionally, the student must meet the specific course prerequisites. Students who violate this policy will be administratively withdrawn.

Course Requirements

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<th>Requirement</th>
<th>Credits</th>
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<th>Foundation Courses (as required)</th>
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<tr>
<td>ECN 502 Economic Analysis</td>
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<th>Core Courses (required of all students)</th>
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<tr>
<td>HRM 600 Development of Labor Relations</td>
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<td>HRM 605 Human Resource Economics</td>
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<tr>
<td>HRM 610 Negotiation and Dispute Resolution</td>
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<td>MGT 620 Human Resource Management</td>
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<tr>
<td>HRM 630 Employment Law</td>
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<tr>
<td>HRM 660 Compensation and Benefits</td>
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<tr>
<td>MGT 672 Organizational Behavior</td>
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<tr>
<td>MGT 692 Ethics and Global Aspects of Business</td>
</tr>
<tr>
<td>MGT 696 Administrative Policy and Strategy</td>
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ADULT AND TECHNICAL EDUCATION, M.S.

Areas of Emphasis
- Adult Education
- Training and Development
- Career and Technical Center Teaching

Education Specialist with Area of Emphasis in Adult and Technical Education, Ed.S.

Program Description, M.S.

The Master of Science in Adult and Technical Education is a field-based program designed to serve persons who are employed on a full-time basis. The program is intended for persons who serve in an instructional, training, leadership, or professional role in human services areas of business, industry, government, community agencies or education. The areas of emphasis in Adult and Technical Education allow a program to be tailored to meet the personal and professional needs of a broad spectrum of graduate students. The courses provide students with the opportunity to continue their graduate education in a flexible program through a state-wide delivery system. Most courses are taught in the evening or at other convenient times. Every effort is made to tailor the program to meet the needs of the student.

The following provides the framework for the candidate’s Plan of Study: In consultation with the advisor, the student will select an area of emphasis and plan the program. Areas of emphasis available in the Master of Science degree program are:

a. Adult Education
b. Interdisciplinary Studies (admission suspended)
c. Training and Development
d. Career and Technical Center Teaching

Admission Requirements

Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website: www.marshall.edu/graduate/how-to-apply-for-admission.

In addition to Marshall University’s requirements for admission, the following criteria must be met for admission to the Adult and Technical Education program:

- Admission to the program also requires an undergraduate Grade Point Average (GPA) of 2.75 or higher on a 4.0 scale for all previously completed undergraduate work.
- Admission to the Career and Technical Teaching emphasis requires that students be employed as a career and technical center teacher in West Virginia.

Program Requirements, M.S. – Areas of Emphasis in Adult Education and Training and Development

Students may complete 33 hours in the thesis option or 36 hours in the non-thesis option to satisfy the Master of Science degree requirements.

A Plan of Study will be sent to the student at the time of admission. Changes in required courses and the choice of any elective courses must be approved, and signed by the advisor on the office copy of the Plan of Study. The Plan of Study is a student’s “blueprint” for completing graduation requirements.

The required GPA to complete the master’s degree is 3.0 (B). Students must prepare a portfolio in their last semester of enrollment and may take no more than one other 3-hour course in the semester that the portfolio class is taken.

Adult Education Area of Emphasis

The Adult Education program is designed to serve persons who work with adults in either an instructional or an administrative role. As such, its participants are drawn from various areas such as the human services agencies, those with staff development, or in-service responsibilities in hospitals, business or government as well as those in adult preparatory programs at the postsecondary or community college level.

Minimum Requirements ...........................................................................................33-36 hours

Major Field.............................................................................................................27

Required:

ATE 603 Introduction to Adult Education and Adult Learners

(continued)
ATE  618  Literature of Adult and Continuing Education
ATE  628  Adult Instruction: Environmental and Personal Aspects
ATE  675  Literature & Applied Research in ATE or Equivalent
ATE  679  Problem Report (3 hours only)

Elect 12 hours from the following:
ATE  600  Aspects of Training and Development
ATE  609  Developing Training in Business and Industry
ATE  656  Instructional Planning for Adult Populations
ATE  661  Practicum in Adult and Continuing Education
ATE  671  Evaluation of Adult and Technical Education

Thesis (6 hours) or Electives (9 hours) .................................................................6-9

Select any academic graduate courses for electives from Adult and Technical Education, Counseling, Curriculum and Instruction, Economics, English, Family and Consumer Sciences, Instructional Technology, Mathematics, Management, Marketing, Psychology, Literacy education, Safety Technology, Sociology, or other approved disciplines.

Training and Development Area of Emphasis
The Training and Development program is designed to serve persons employed in business, industry, or other organizations involved in the advancement of knowledge, competencies, and skills of their employees. Graduate students are drawn from areas such as management, marketing, human resources, and safety whose responsibilities include instructional design and preparation of employees for current jobs, future assignments, and/or personal enhancement.

Minimum Requirements .................................................................33-36 hours
Major Field...........................................................................................................27

Required:
ATE  503  Introduction to Adult Learning Theory*
ATE  600  Aspects of Training and Development
ATE  609  Developing Training in Business and Industry*
ATE  628  Adult Instruction: Environmental and Personal Aspects*
ATE  652  Field Based Job Analysis and Curriculum Design*
ATE  661  Practicum in Adult and Continuing Education
ATE  675  or equivalent

Elect 6 hours of additional ATE course credit
Thesis (6 hours) or Electives (9 hours).................................................................9

Select any academic graduate courses for a minor field from Adult and Technical Education, Communications Studies, Counseling, Instructional Technology, Management, Marketing, Psychology, Safety Technology, or other approved disciplines.

*Students may register for Internship after successful completion of: ATE 503, ATE 609, ATE 628, ATE 652.

Program Requirements, M.S. – Area of Emphasis in Career and Technical Center Teaching
The required GPA to complete the master’s degree is 3.0 (B). Students must pass the capstone course requirements in order to obtain the M.S. degree.

Master of Science – Area of Emphasis in Career and Technical Center Teaching

Required Courses
ATE  511  Introduction to Career and Technical Education
ATE  524  Safety in Career and Technical Education
ATE  548  Teaching Methods in Career and Technical Education
ATE  508  Applications of Basic Skills in Career and Technical Education
ATE  631/637  Computer Applications
ATE  650  Career Education Curriculum Development
ATE  673  Assessment in Adult/Technical Education

Total Required Hours.................................................................21

(continued)
Elective Courses (choose 9 hours of these ATE courses)

ATE 603  Introduction to Adult Education and Adult Learners
ATE 628  Adult Instruction: Environmental and Personal Aspects
ATE 609  Developing Training Plans for Business and Industry
ATE 549  Occupational Analysis and Instructional Design
ATE 550  Interpersonal Skills in the Workplace

Total Elective Hours .................................................................................................................9

(Students must complete all required courses before registering for ATE 618)

Required Capstone Course

ATE 618  Literature of Adult and Continuing Education ....................................................... 3

TOTAL DEGREE HOURS ............................................................................................................33

Ed.S. with Area of Emphasis in Adult and Technical Education

Program Description

The program is designed to permit specialization in the field of Adult and Technical Education.

Admission Requirements, M.S.

Applicants must have a master’s degree from a regionally accredited institution and work experience that provides an applicable background for the program. Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission

Program Requirements

All programs must be completed in seven years from admittance and conform to the following standards:

1. Completion of a minimum of 36 hours of planned, approved graduate study with a 3.25 GPA, including the following:

   Core coursework .........................................................................................................................15
   
   LS  703  Research Design
   EDF  625  Qualitative Research in Education;
   CIEC  700  Technology and Education
   EDF  711  Survey Research in Education;
   CI  677  Writing for Publication OR
   HUM  604  Expository Writing

   Adult and Technical Education Coursework .............................................................................15
   
   ATE  618  Literature of Adult and Continuing Education
   ATE  689  Grant Writing;
   ATE  701  Community and Technical College
   ATE  723  Perspectives and Strategies for Workforce Education
   ATE  679  Community and Technical College

   Research Component .................................................................................................................3
   
   ATE  679  Problem Report

TOTAL HOURS .......................................................................................................................33

2. A Plan of Study will be sent to the student at the time of admission. Changes in required courses and the choice of any elective courses must be approved, and signed off by the advisor on the office copy of the Plan of Study. The Plan of Study is a student’s “blueprint” for completing graduation requirements.
COUNSELING, M.A.
Areas of Emphasis
   Clinical Mental Health Counseling
   School Counseling
Graduate Certificate
   Violence, Loss, and Trauma Counseling

Program Description, M.A.
   The Master of Arts degree in Counseling is a 60-hour planned program of study designed to meet the necessary competencies of professional counselors, and satisfies the curricular requirements for counselor licensure. There are currently two distinct Areas of Emphasis offered within the Counseling program. Curricular elements consist of core courses required of all counseling majors and emphasis courses specific to mental health counseling and school counseling.

   The Master of Arts degree in Counseling at Marshall University is built upon the training standards and codes of ethics recognized by CACREP (Council for Accreditation of Counseling and Related Educational Programs), ACA (American Counseling Association), and ASCA (American School Counselors Association) and is consistent with the Marshall University School of Education conceptual framework theme of Preparing The Experienced Professional as Specialist. Within this context it is the mission of the Counseling Program to prepare graduates with the knowledge and skills needed to meet the challenges associated with entry into the field of counseling and into their role as professional counselors. Program graduates are eligible to apply for WV licensure in counseling at the point they complete post-graduate supervision and pass a comprehensive licensure examination.

Admission Requirements
   Admission to the Counseling Program is selective and competitive. Admission decisions for all program applicants are rooted in the specific standards of the Marshall University Graduate College and the minimum standards of the Counseling program. Students are admitted to an area of emphasis and must indicate their preferences during the admission application process.

   Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission.

   Multiple criteria are used in making decisions to admit students to the degree program. Each applicant is evaluated using the following criteria (all material should be submitted directly to Graduate Admissions):
   1. GRE score of 286 (quantitative & verbal combined) or MAT scale score of 395 (Raw score 40).
   2. Undergraduate Grade Point Average (GPA) of 2.75 or higher on a 4.0 scale for all previously completed undergraduate university work.
   3. Three written references (two from current or former professors)
   4. Writing sample expressing the applicant’s interest in the counseling profession.

   Flexibility is maintained in applying the criteria to individual cases. For example, an applicant who does not meet the minimum criteria may be granted provisional admission and be directed to complete a prescribed set of courses. A provisionally admitted student can be reclassified as a fully admitted student no later than completion of the 12th credit hour by maintaining a 3.50 GPA in these courses.

Program Requirements
   It is the responsibility of all admitted students to meet with their advisors prior to the beginning of coursework. Each student must complete an advisor-approved Plan of Study prior to registering for courses. A minimum Grade Point Average of 3.0 in all degree courses is required prior to enrollment in the practicum, internship, and for graduation.

CORE COURSES
   All 45 hours of core courses are offered on both the South Charleston and Huntington campuses. Please note that internship courses are specific to emphasis areas.

CORE CURRICULUM
   The Master of Arts degree in Counseling is a 60 hour planned program of study designed to meet the necessary competencies of professional counselors. The curricular elements consist of core courses required of all counseling students and emphasis courses specific to Clinical Mental Health Counseling and School Counseling.

   The following 45 semester hours of core courses are required of all students:
   
   COUN  574  Social & Cultural Foundations
   COUN  575  Prevention and Treatment of Addictions
AREAS OF EMPHASIS

Clinical Mental Health Counseling
In addition to the core courses, students specializing in Clinical Mental Health Counseling must complete the following emphasis courses:

- COUN 555 Crisis Intervention and Conflict Resolution
- COUN 630 Introduction to Clinical Mental Health Counseling
- Advisor-Approved Electives (9 hours)

Emphasis total................................................................................................. 15

Total credit hours (including core) ........................................... 60

School Counseling
The School Counseling curriculum meets the State Department of Education certification standards. An alternative school counseling program is available for students without a teacher education background to qualify for West Virginia certification as school counselors. In addition to the core courses, students specializing in School Counseling must complete the following emphasis courses:

- CIEC 534 Applications Software in the Classroom Curriculum Area
- COUN 670 Interventions: Current Issues in School Counseling
- COUN 672 Organization and Administration ..........of School Counseling Programs
- COUN 673 Counseling Children, Parents and Adolescents
- COUN 675 Legal and Ethical Issues for School Counselors

Emphasis total................................................................................................. 15

Total credit hours (including core) ........................................... 60

Certification Requirements for School Counselors
Students in School Counseling must meet certification requirements established by the West Virginia Department of Education. All students must pass the Praxis II: Specialty Area Test (formerly the National Teachers Examination) in School Counseling prior to applying for certification. Applications for certification are available in the central offices of the county school systems. An alternative school counseling program certification is available for students without a teacher education background to qualify for West Virginia certification as elementary or secondary school counselors.

Students who do not hold a valid West Virginia teaching certificate (non-education majors) must submit passing scores on the Pre-Professional Skills Tests (PPST) prior to enrollment in courses leading to certification.
Non-education majors must also complete 6 hours of additional coursework from the following:

**Alternative Certification Courses**

- EDF 665 Sociology of American Schools OR
- LS 532 Human Relations Skills for Leaders
- CISP 521 Children with Exceptionalities (check with advisor)

**Total Credit Hours with Alternative Certification**

(including core) ...............................................................66

### ELECTIVE COURSE OPTIONS

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<th>Title</th>
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<tbody>
<tr>
<td>COUN 545</td>
<td>Beginning Manual Communication</td>
</tr>
<tr>
<td>COUN 554</td>
<td>Advanced Manual Communication</td>
</tr>
<tr>
<td>COUN 555</td>
<td>Crisis Intervention and Conflict Resolution</td>
</tr>
<tr>
<td>COUN 556</td>
<td>Death and Grief Counseling</td>
</tr>
<tr>
<td>COUN 577</td>
<td>Stress Management Counseling</td>
</tr>
<tr>
<td>COUN 579</td>
<td>Pharmacology in Counseling</td>
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</tbody>
</table>

COUN 580-583 Special Topics

COUN 585-588 Independent Study

COUN 601 Counselors in Consulting and Community Roles

COUN 611 Foundations of Community Counseling

COUN 616 Domestic Violence

COUN 617 Seminar in Counseling

COUN 620 Workshop in Counseling

COUN 621 Introduction to Child Abuse and Neglect

COUN 622 Parent Education

PSY 508 Abnormal Psychology

### Graduate Certificate in Violence, Loss and Trauma Counseling

**NOTE:** Professional Continuing Education coursework offered in the certificate program will be eligible for continuing education units by the Counseling Board of Examiners.

The graduate certificate program in Violence, Loss, and Trauma Counseling (VoLT) is completed in one of two ways:

- First, the student may be accepted into the Counseling program and take the certification courses in conjunction with the required degree courses and graduate with a Master of Arts degree in Counseling in addition to a graduate certificate denoting this area of specialty.
- Second, for those holding master’s degrees in counseling or related fields, the certificate coursework may be taken as a stand-alone program to be completed in one to two years.

This program is currently the state’s only graduate level initiative providing a sequential, specialized professional development opportunity for mental health professionals who contribute to the identification of and interventions in these specialty areas.

### Admission Requirements

Students already enrolled in the Counseling program, in the Clinical Mental Health Counseling area of emphasis, should submit to Graduate Admissions a Secondary Program Request form: www.marshall.edu/graduate//secondary-program-request-form.

Prospective certificate-only students should apply for admission to Marshall University as a Certificate/Professional Development student and select on the application form the Certificate in Violence, Loss, and Trauma Counseling (VoLT).

It is expected that enrollees of this program will generally be engaged in clinical practice or some support aspect of direct client service and/or intervention where family violence, bereavement, or trauma have been identified or suspected.

Admission requirements for the certificate program include the following:

- Concurrent enrollment in a Master's degree in counseling, social work, psychology, or related field, OR
- A master's degree in counseling, social work, psychology, or related field, OR
- Departmental approval.
Course Requirements (15 hours)

- COUN 556  Death and Grief Counseling
- COUN 654  An Ecological Approach to Domestic Violence
- COUN 655  Counseling Victims, Perpetrators, and Children of Domestic Violence
- COUN 682  Treatment in Trauma Recovery
- COUN 683  Psychophysiology of Trauma
- COUN 684  Advanced Techniques in Treatment of Trauma and Loss
- COUN 686  Traumatic Stress and Suffering

*Required for the certificate.

CURRICULUM AND INSTRUCTION, Ed.S., Ed.D.

Education Specialist with Area of Emphasis in Curriculum and Instruction, Ed.S.
Curriculum and Instruction Ed.D.

Ed.S. with an Area of Emphasis in Curriculum and Instruction

The Education Specialist degree with an Area of Emphasis in Curriculum and Instruction is designed for post-master’s professionals who are seeking a planned and structured program of study. Students may elect to be dually enrolled in the Education Specialist program and Doctor of Education in Curriculum and Instruction program.

Admission Requirements

Applicants must have a master’s degree in an appropriate field. Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission

Degree Requirements

Education Specialist degree (Ed.S.) students follow a planned program of study and must maintain a cumulative Grade Point Average (GPA) of 3.0.

Core: 15

- LS 703  Research Design
- EDF 625  Qualitative Research in Education OR
- EDF 626  Advanced Qualitative Research in Education
- CIEC 700  Technology and Curriculum
- EDF 711  Survey Research in Education
- CI 677  Writing for Publication in Professional Education OR
- HUM 604  Expository Writing for Research

Area of Emphasis: 12

- CI 701  Curriculum Development
- CI 702  Curriculum Theories
- CI 703  Theories, Models and Research of Teaching
- CI 704  Social and Political Determinants of Curriculum Development

Capstone: 3

- EDF 679  Problem Report

TOTAL 30

Curriculum and Instruction, Ed.D.

This program is designed to offer the opportunity to earn the Doctor of Education (Ed.D.) degree in Curriculum and Instruction. Coursework and other requirements will be met on the South Charleston campus. The mission of the doctoral program in education is to prepare practitioners to be reflective, ethical educators and researchers who contribute to the field of education. Program faculty are committed to creating a community of scholars through mentoring, engaging in collaborative research, and maintaining a focus on sound educational practices.
Acceptance into the Program

The decision to admit an applicant to doctoral work constitutes a significant commitment from the faculty of the department in the form of advising, teaching, chairing or serving on the student’s committee, preparing and evaluating examinations, and guiding the successful completion of the dissertation. The applicant should note that the decision to admit students to the doctoral program is a collective judgment of the program faculty and represents their determination of the likelihood of the candidate to succeed in all major phases of the degree program. These judgments take into account the applicant’s professional experiences, communication and thinking skills, and other relevant capabilities. Thus, an applicant is not automatically admitted on the basis of meeting only the minimum criteria.

An applicant must have earned at least a master's degree from an accredited institution in Educational Leadership, Curriculum and Instruction, or a related field. Details of all admission requirements and other pertinent information can be found at www.marshall.edu/edd.

EDUCATION, M.A.

Teacher Licensure in West Virginia

With the exception of the Master of Arts in Teaching Program, the master’s degree and professional development programs described herein do not result in initial licensure in West Virginia. Students seeking initial West Virginia licensure are advised to consult with their advisors regarding appropriate programs and courses.

EARLY CHILDHOOD, M.A.

ELEMENTARY, M.A.

Areas of Emphasis
- Early Childhood Education
- Educational Computing
- Elementary Mathematics Specialist
- Elementary Science
- Individualized Plan of Study
- Instructional Processes and Strategies
- Math through Algebra I
- Middle Childhood Education
- School Library Media
- Teaching English as a Second Language

SECONDARY, M.A.

Areas of Emphasis
- Educational Computing
- Individualized Plan of Study
- Instructional Processes and Strategies
- Math through Algebra I
- Middle Childhood Education
- School Library Media
- Teaching English as a Second Language

Graduate Certificates
- Early Childhood Education
- Educational Computing
- Elementary Mathematics Specialist
- Elementary Science Education
- Mathematics through Algebra I
- Middle Childhood Education
- Post-Baccalaureate Teacher Certificate
- School Library Media Specialist
- Teaching English as a Second Language
Program Description

The goal of the Early Childhood, Elementary and Secondary Education programs is to provide coordinated, sequential programs of study in an identified area of education. These programs provide the educators and those in education-related fields four venues for graduate level professional development:

- Graduate certificate programs,
- Master’s degree (M.A.),
- Education Specialist degree (Ed.S.),
- Doctor of Education degree (Ed.D.).

In addition, graduate courses are available outside planned programs to allow professionals to augment their knowledge on topics of current interest or meet individual needs.

The graduate certificate programs provide concentrated graduate-level study of a specialty. Master’s degrees offer a theoretical orientation with a focus on the application of theory to practice. The Education Specialist degree with an Area of Emphasis in Curriculum and Instruction is designed for post-master’s professionals who are seeking a planned and structured program of study. Students may elect to be dually enrolled in the Education Specialist program and Doctor of Education in Curriculum and Instruction program. The Doctor of Education in Curriculum and Instruction serves the need of professionals who are seeking a terminal degree in the field. For more information on these post-master’s degrees please see individual listings in this catalog.

Admission Requirements to Master’s Degree Programs

Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission

In addition:

- Submit directly to Graduate Admissions your Graduate Record Examinations (GRE) General Test or Miller Analogies Test (MAT) scores; applicants should score 286 or above on the verbal and quantitative sections of the GRE or at least 387 on the MAT.

Multiple criteria are used in arriving at decisions to admit students to the master’s degree programs in Early Childhood, Elementary and Secondary Education. Each applicant is evaluated with reference to the following criteria:

1. Undergraduate Grade Point Average;
2. GRE or MAT scores;
3. Performance in any prior graduate courses.

Flexibility is maintained in applying the criteria to individual cases. In practice, superior performance in one criterion may compensate for failing to meet the required standard on another. An applicant who does not meet minimum requirements for admission may be granted provisional admission. Provisionally admitted students may be directed to complete certain courses up to 12 credit hours. If a 3.0 GPA is maintained in those courses, then the applicant will be fully admitted to the degree program no later than completion of the 12th credit hour.

Plan of Study

A Plan of Study approved by the student’s advisor must be on file before the student registers for his or her 12th semester hour. The Plan of Study is a student’s “blueprint” for completing graduation requirements.

EARLY CHILDHOOD EDUCATION, M.A.

Program Requirements

The Master of Arts in Early Childhood Education consists of a set of core course requirements, an area of emphasis, and a capstone experience. All students must complete 15 hours of coursework in research, growth and development, technology, instructional methods and assessment. Each student must also select an area of emphasis consisting of 18 hours of required and elective coursework. Students will meet the comprehensive assessment requirement through the framework of the capstone experience.

Two options for advanced studies in Early Childhood are available:

1. Option 1, designed for those who are licensed Early Education (PreK-K) teachers.
2. Option 2, designed for those who are licensed Elementary teachers with no endorsement in Early Education.

Hours may vary, depending on the student’s undergraduate program. For those earning an endorsement in Early Childhood (PreK-K) under Option 2, a practicum and a passing grade on the Praxis II: Specialty Area Test in Early Education (PreK-K) are required.
Option 1: The Master's Degree in Early Childhood Education designed for those who are licensed Early Education (PreK-K) teachers

Core Subjects ................................................................................................................................................15 hrs.

EDF 621 Educational Research and Writing OR
EDF 625 Qualitative Research in Education
EDF 616 Advanced Studies in Human Development
CIEC 534 Applications Software in the Classroom Curriculum Area OR
CIEC 600 Instructional Design and Technology OR
CIEC 635 Using the Internet in the Classroom
CI 623 Instructional Models and Assessment Techniques OR
CI 624 Advanced Instructional Strategies OR
Approved methods course
EDF 612 Educational Evaluation OR
CI 609 Elementary Education: Curriculum in the Modern Elementary School OR
CI 501 Middle Childhood Curriculum

Specialty: ................................................................................................................................................18 hrs.

CIRG 653 Literacy Acquisition
CI 631 Early Childhood Education: Current Influences on Early Childhood Education
CI 632 Early Childhood Education: Early Childhood Programs
CI 633 Early Childhood Education: Adult Involvement in Early Education
CI 634 Language and Cognition in Early Childhood
ECE 603 Current Issues in Child Development OR
EDF 513 Human Growth and Development

Capstone Experience .....................................................................................................................6 hrs.

TOTAL ........................................................................................................................................39 hrs.

Option 2: The Master's Degree in Early Childhood Education designed for those who are licensed Elementary teachers with no endorsement in Early Education.

Core Subjects ...........................................................................................................................................15 hrs.

EDF 621 Educational Research and Writing OR
EDF 625 Qualitative Research in Education
EDF 616 Advanced Studies in Human Development
CIEC 534 Applications Software in the Classroom Curriculum Area OR
CIEC 600 Instructional Design and Technology OR
CIEC 635 Using the Internet in the Classroom
CI 623 Instructional Models and Assessment Techniques OR
CI 624 Advanced Instructional Strategies OR
Approved methods course
EDF 612 Educational Evaluation OR
CI 609 Elementary Education: Curriculum in the Modern Elementary School OR
CI 501 Middle Childhood Curriculum

Specialty: ............................................................................................................................................18 hrs.

CI 632 Early Childhood Education: Early Childhood Programs
CI 633 Early Childhood Education: Adult Involvement in Early Education
CI 634 Language and Cognition in Early Childhood
ECE 535 Administration of Early Childhood Programs
EDF 513 Human Growth and Development
CI 630 Early Childhood Education: Practicum
in Early Childhood Education

Capstone Experience ............................................................................................................... 6 hrs.
TOTAL .................................................................................................................................. 39 hrs.

Capstone Experience
Students may meet the capstone experience requirement either through completion of CI 690 and 3 hours of approved coursework or by satisfactorily completing a comprehensive examination and six hours of approved coursework.

ELEMENTARY EDUCATION, M.A.
Program Requirements
The Master of Arts in Elementary Education consists of a set of core course requirements, area of emphasis requirements, and a capstone experience. All students must complete 15 hours of coursework in research, growth and development, technology, instructional methods and assessment. Each student must also select an area of emphasis consisting of 18 hours of required and elective coursework. Students will meet the comprehensive assessment requirement through the framework of the capstone experience.

Core Subjects ..........................................................................................................................15 hrs.
EDF 621 Educational Research and Writing OR
EDF 625 Qualitative Research in Education
EDF 616 Advanced Studies in Human Development
CIEC 534 Applications Software in the Classroom Curriculum Area OR
CIEC 600 Instructional Design and Technology OR
CIEC 635 Using the Internet in the Classroom
EDF 612 Educational Evaluation OR
CI 609 Elementary Education: Curriculum
in the Modern Elementary School OR
CI 501 Middle Childhood Curriculum
CI 623 Instructional Models and Assessment Techniques OR
CI 624 Advanced Instructional Strategies OR
Approved methods course

Area of Emphasis .................................................................................................................... 18 hrs.
Capstone Experience ............................................................................................................... 6 hrs.
TOTAL .................................................................................................................................. 39 hrs.

Areas of Emphasis include (descriptions follow in section titled “Additional Certification for Teachers”):
1. Early Childhood Education
2. Educational Computing
3. Instructional Processes and Strategies
4. Math through Algebra I
5. Middle Childhood Education
6. School Library Media
7. Teaching English as a Second Language (ESL)
8. Individualized Plan of Study

Capstone Experience:
Students may meet the capstone experience requirement either through completion of CI 690 and 3 hours of approved coursework or by satisfactorily completing a comprehensive examination and six hours of approved coursework.
SECONDARY EDUCATION, M.A.

Program Requirements

The Master of Arts in Secondary Education consists of a set of core course requirements, area of emphasis requirements, and a capstone experience. All students must complete 15 hours of coursework in research, growth and development, technology, instructional methods and assessment. Each student must also select an Area of Emphasis consisting of 18 hours of required and elective coursework. Students will meet the comprehensive assessment requirement through the framework of the capstone experience.

Core Subjects

EDF 621 Educational Research and Writing OR
EDF 625 Qualitative Research in Education
EDF 616 Advanced Studies in Human Development
CIEC 534 Applications Software in the Classroom Curriculum Area OR
CIEC 600 Instructional Design and Technology OR
CIEC 635 Using the Internet in the Classroom
CI 623 Instructional Models and Assessment Techniques OR
CI 624 Advanced Instructional Strategies OR
Approved methods course
EDF 612 Educational Evaluation OR
CI 609 Elementary Education: Curriculum in the Modern Elementary School OR
CI 501 Middle Childhood Curriculum

Area of Emphasis

Capstone Experience

TOTAL

Areas of Emphasis include (descriptions are in the following section):
1. Educational Computing
2. Instructional Processes and Strategies
3. Math through Algebra I
4. Middle Childhood Education
5. School Library Media
6. Teaching English as a Second Language (ESL)
7. Individualized Plan of Study

Capstone Experience:

Students may meet the capstone experience requirement either through completion of CI 690 and 3 hours of approved coursework or by satisfactorily completing a written comprehensive examination and six hours of approved coursework.

ADDITIONAL CERTIFICATION FOR TEACHERS

Teachers who want to add another teaching endorsement may do so by completing the course requirements, a performance assessment at the appropriate grade level, and the appropriate Praxis II test.

Plans of Study for Areas of Emphasis, Professional Development Programs

Plans of study marked with an asterisk (*) may be used as endorsements for teaching certification. Endorsement programs are available only to teachers who hold a valid professional license in any area other than the one for which endorsement is desired.

Plans of study marked with a plus sign (+) may be used as graduate certificate programs. Certificate coursework may be taken as a stand-alone program.

Certificate Program Admission Requirements

Prospective certificate-only students should apply for admission to Marshall University as a Certificate/Professional Development student and select on the application form the certificate they wish to pursue. Education certificate programs require:
• A baccalaureate degree from a regionally accredited college or university; and
• An undergraduate Grade Point Average (GPA) of 2.50 or higher on a 4.0 scale for all previously completed undergraduate university work OR a master’s degree.

*+Early Childhood Education: This concentration combines theory, research, and practical applications to child development and early childhood education. It is designed for teachers who wish to pursue a master’s degree with an emphasis in early childhood education, as well as teachers who wish to add a PreK-K endorsement to their professional licensure. This concentration is available to teachers who hold a valid K-6 or K-8 professional license and wish to pursue a master’s degree with an early childhood education emphasis.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CI 632</td>
<td>Early Childhood Education: Early Childhood Programs</td>
</tr>
<tr>
<td>CI 633</td>
<td>Early Childhood Education: Adult Involvement in Early Education</td>
</tr>
<tr>
<td>CI 634</td>
<td>Language and Cognition in Early Childhood</td>
</tr>
<tr>
<td>ECE 535</td>
<td>Administration of Early Childhood Programs</td>
</tr>
<tr>
<td>EDF 513</td>
<td>Human Growth and Development Birth-8</td>
</tr>
<tr>
<td>CI 630</td>
<td>Early Childhood Education: Practicum in Early Childhood Education, plus</td>
</tr>
<tr>
<td>CIEC 534</td>
<td>Applications Software in the Classroom Curriculum Area OR</td>
</tr>
<tr>
<td>CIEC 600</td>
<td>Instructional Design and Technology OR</td>
</tr>
<tr>
<td>CIEC 635</td>
<td>Using the Internet in the Classroom</td>
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<td>TOTAL ...........................................................................................................21 hrs.</td>
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</tbody>
</table>

Educational Computing: This concentration focuses on instructional applications and classroom utilization of computing.

<table>
<thead>
<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>CIEC 534</td>
<td>Applications Software in the Classroom Curriculum Area</td>
</tr>
<tr>
<td>CIEC 600</td>
<td>Instructional Design and Technology</td>
</tr>
<tr>
<td>CIEC 610</td>
<td>Local Area Networks and Telecommunications in the School</td>
</tr>
<tr>
<td>CIEC 630</td>
<td>Authoring Systems and Multimedia</td>
</tr>
<tr>
<td>CIEC 635</td>
<td>Using the Internet in the Classroom</td>
</tr>
<tr>
<td>CIEC 699</td>
<td>Final Project in Curriculum Area</td>
</tr>
<tr>
<td>An approved elective</td>
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<td>TOTAL ...........................................................................................................21 hrs.</td>
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</table>

++ Elementary Mathematics Specialist: This concentration is available to teachers who hold a valid professional license in Elementary Education that includes Grades K-6. The goals of this program are to strengthen mathematical content knowledge and mathematical teaching methods of elementary teachers, Grades K-6. This program leads to the addition of an Elementary Mathematics Specialist endorsement on an existing, current, regular, elementary education West Virginia teaching license. Satisfactory completion of the required courses and state licensure requirements meet the requirements for certification.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>CIME 500</td>
<td>Mathematics for the Elementary Teacher I</td>
</tr>
<tr>
<td>CIME 501</td>
<td>Mathematics for the Elementary Teacher II</td>
</tr>
<tr>
<td>CIME 555</td>
<td>Technical Mathematics for Mathematics Educators</td>
</tr>
<tr>
<td>CIME 650</td>
<td>Algebra for Mathematics Educators</td>
</tr>
<tr>
<td>CIME 658</td>
<td>Geometry for Mathematics Educators</td>
</tr>
<tr>
<td>CIME 673</td>
<td>Elementary Mathematics Methods and Supervised Field Practicum K-6</td>
</tr>
<tr>
<td>CIEC 534</td>
<td>Applications Software in the Classroom Curriculum Area</td>
</tr>
<tr>
<td>TOTAL ...........................................................................................................21 hrs.</td>
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</tr>
</tbody>
</table>

Instructional Processes and Strategies:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDF 610</td>
<td>Trends and Issues in Education</td>
</tr>
<tr>
<td>CI 623</td>
<td>Instructional Models and Assessment Techniques</td>
</tr>
<tr>
<td>CI 624</td>
<td>Advanced Instructional Strategies</td>
</tr>
</tbody>
</table>

(continued)
Degree Programs and Requirements

Marshall University

CIEC 530 Computer Software and Methodology in Education OR
CIEC 534 Applications Software in the Classroom Curriculum Area
CI 639 Language Arts and Literature
CI 551 Writing to Learn in Content Areas
CI 657 Elementary Education: Advanced Techniques in Teaching Elementary Mathematics
CI 671 Elementary Education: Advance Techniques in Teaching Science

TOTAL ........................................................................................................... 24 hrs.

*+Mathematics through Algebra I: This concentration is available to teachers who hold a valid professional license in any area other than mathematics. Satisfactory completion of the required courses, and passing the Praxis II meets the requirements for certification.

CIME 555 Technical Mathematics for Mathematics Educators
CIME 556 Finite Mathematics for Mathematics Educators
CIME 650 Algebra for Mathematics Educators
CIME 657 Precalculus for Mathematics Educators
CIME 658 Geometry for Mathematics Educators
CIEC 600 Instructional Design and Technology
CIME 670 Teaching Mathematics
CIME 675 Supervised Field Practicum/Seminar in Mathematics, 5-9 OR
CIME 677 Supervised Field Practicum/Seminar in Mathematics, 5-12

TOTAL ........................................................................................................... 24 hrs.

*+Middle Childhood Education: The concentration in middle childhood education provides a certificate endorsement program for elementary and secondary teachers who have met initial licensure requirements. The endorsement will allow teachers to provide instruction in grades 5-9 within their area(s) of specialization.

The coursework in this program may be used as an area of emphasis within the master's degree program in Elementary Education or Secondary Education or may be completed as a separate Professional Development program. Individuals who wish to take the endorsement program but not pursue a master's degree should apply to the Professional Development program in middle childhood education. Teachers selecting this option must have an initial content specialization or complete a new one. Elementary Education is not a content area for 5-9 or 5-12. Passing the Praxis II is required.

CI 501 Middle Childhood Curriculum
CI 503 Methods and Materials of Teaching in the Middle Childhood Grades
EDF 502 Psychology of the Middle Childhood Student
CI 672 Practicum in Education
CIEC 534 Applications Software in the Classroom Curriculum Area OR
CIEC 600 Instructional Design and Technology OR
CIEC 635 Using the Internet in the Classroom

TOTAL ........................................................................................................... 15 hrs.

*+School Library Media Specialist: The concentration in Library Media provides a certificate endorsement program for elementary and secondary teachers who have met initial licensure requirements. The program will prepare K-12 teachers to manage school library media centers, collaborate with faculty to support the school curriculum and facilitate information literacy.

ITL 501 Libraries and the Learning Process
ITL 502 Library Materials for Adolescents
ITL 515 Reference and Bibliography
ITL 622 Cataloging
ITL 625 Library Organization and Administration
ITL 631 Technology and the Library
ITL 650 Library Practice (Field Work)
CIRG 613 Children's Literature

TOTAL ........................................................................................................... 24 hrs.

*+Teaching English as a Second Language (ESL): The concentration in Teaching English as a Second Language provides a certificate endorsement program for elementary and secondary teachers who have met initial licensure requirements. The purpose of the program is to prepare teachers who work with learners who enter schools with a language other than English.

CISL 550 Second Language Acquisition

TOTAL ........................................................................................................... 24 hrs.
CISL 551, Linguistics for ESL
CISL 552, Intercultural Communication
CISL 653, Methods and Materials for ESL: Language Development
CISL 654, Methods and Materials for ESL: Literacy Acquisition
CISL 655, ESL Practicum for Teaching ESL, plus
CIEC 534, Applications Software in the Classroom Curriculum Area OR
CIEC 600, Instructional Design and Technology OR
CIEC 635, Using the Internet in the Classroom

TOTAL ............................................................................................................ 21 hrs.

Individualized Plan of Study: Students selecting a planned program must complete the curriculum course CI 501, CI 609, or CI 610 appropriate for their certification.

Certificate in Program Evaluation

Evaluation research—systematic research principles and procedures for determining the success of policies, programs, projects, community development and other activities—has grown exponentially over the past several decades, especially as foundations, granting agencies, non-profits, governmental and other organizations and agencies increasingly expect and require the evaluation of services, programs, and projects. The need for researchers trained in both the theories and methods of evaluation research has grown accordingly. The Certificate in Program Evaluation emphasizes the practical application of program planning, assessment, and evaluation through frames of mixed methods research, local cultural contexts, and project-based applications of skills and knowledge.

Students may apply to this certificate program as either degree or non-degree students (in either case, students must apply for the certificate through Graduate Admissions). Also, as in other certificate programs, to make an application, students must possess an undergraduate B.A. or B.S. degree from a regionally accredited college or university, with a minimum of an overall undergraduate grade point average of 2.5 on a scale of 4. No more than 3 hours of transfer credit can be applied to the proposed certificate (and the credit may not be more than 7 years old), to be applied only to the local cultural literacy/competency requirement (students may not transfer CI 627, EDF 620, or EDF 629). Students may apply credits earned in the proposed certificate to graduate degrees in GSEPD as well as in the Graduate Humanities Program as electives, to be determined by faculty advising students’ programs of study. Credits earned in the proposed certificate can potentially be applied to professional development and other professional continuing education as well; again, depending on individual programs of study and the approval of faculty in GSEPD and/or the Graduate Humanities Program.

Curriculum for Certificate in Program Evaluation

CI 627, Program Planning and Evaluation
EDF 620, Mixed Methods Research
EDF 679, Problem Report

Local Cultural Literacy/Competency – Select one of the following:
CULS 610, Seminar in Appalachian Culture
CULS 611, Appalachian Studies: Themes and Voices
CULS 612, Time and Place in Appalachia

FAMILY AND CONSUMER SCIENCES

Interested persons should please call the College of Education and Professional Development at 304-696-3131

LEADERSHIP STUDIES, M.A., Ed.S., Ed.D.

Leadership Studies, M.A.
Areas of Emphasis:
   Educational Leadership (School Principal)
   Justice Leadership
   Leadership Specialist

Education Specialist, Ed.S.
Areas of Emphasis:

(continued)
Leadership Studies
Community College Administration

Educational Leadership, Ed.D.
Areas of Emphasis:
Higher Education Administration
Public School Administration
Community College Administration

Graduate Certificates:
School Principalship (post-master’s)
Social Service and Attendance

Licensure:
School Principalship
Social Service and Attendance
Supervisor of Instruction
School Superintendent

Program Descriptions
The Leadership Studies program offers the following degree programs:

- Master of Arts degree in Leadership Studies (M.A.) with Areas of Emphasis in Educational Leadership, Justice Leadership, Leadership Specialist
- Education Specialist in Education (Ed.S.) with an Area of Emphasis in Leadership Studies and specializations in Higher Education Administration, Public School Administration, and Community College Administration.
- Doctoral Degree in Education (Ed. D.) with a major in Educational Leadership with Areas of Emphasis in Higher Education Administration, Public School Administration and Community College Administration

Leadership Studies also offers professional licensure programs for School Principal, Supervisor of Instruction, School Superintendent, and Social Services and Attendance.

Leadership Studies, M.A. with Educational Leadership Area of Emphasis

The Master of Arts Degree in Leadership Studies offers an area of emphasis in Educational Leadership which includes the coursework for professional administrative licensure as a school principal. It is a portfolio-based program which requires a minimum of 36 semester hours. Courses may not be used if they are more than seven years old at the time of graduation. Students must complete all field-based experiences for courses that are transferred from other accredited institutions or programs. All persons seeking professional licensure as a school principal are required to pass the PRAXIS II (0411) Educational Leadership Administration and Supervision Test. West Virginia licensure also requires the completion of the Evaluation Leadership Institute offered by the West Virginia Center for Professional Development.

Admission Requirements for Educational Leadership Area of Emphasis
Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission. In addition:

Each candidate for the Educational Leadership Area of Emphasis must meet all admission requirements as a degree student. Scores from the Graduate Record Examination, the Miller Analogies Test, or a previous master’s degree from an accredited institution must be on file at the time of admission. Students must score at least a 40 (tested prior to October, 2004) or at least a 392 (after October, 2004) on the Miller Analogies Test. Students who take the Graduate Record Examination must have a combined score of 800 verbal and quantitative (tested prior to November, 2011) or at least a 286 (November, 2011 or after). Students must hold a Professional Teaching Certificate and have a minimum of one year of teaching experience at the time of admission to the program.

Program of Studies .......................................................................................................36 hrs

- LS 510 The Principalship
- LS 515 Instructional Leadership
- LS 520 Administration of Elementary, Middle and Secondary Schools
- LS 530 Human Relations
- LS 600 School Personnel Administration
LS  606  Planning, Research and Evaluation for School Leaders
LS  610  Leadership for School Improvement
LS  612  Education Technology for Administrators
LS  630  School and the Community
LS  675  Legal and Policy Issues
LS  550  Schools as Systems OR
LS  661
LS  685  Internship: Portfolio Assessment

Leadership Studies, M.A. with Justice Leadership Area of Emphasis

Admission Requirements
Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission

In addition:

Scores from the Graduate Record Examination, the Miller Analogies Test, or a previous master’s degree from an accredited institution must be on file at the time of admission. Students must score at least a 40 (tested prior to October 2004) or at least a 392 (after October, 2004) on the Miller Analogies Test. Students who take the Graduate Record Examination must have a combined score of 800 verbal and quantitative (tested prior to November, 2011) or at least a 286 (November, 2011 or after). All degree students follow a planned program of study and must maintain a cumulative Grade Point Average (GPA) of 3.0.

Degree Requirements
All degree students follow a planned program of study and must maintain a cumulative Grade Point Average (GPA) of 3.0. Upon completion of required courses, master’s degree students must participate in an externship experience, which synthesizes the content of required courses in their program of studies. A Master of Arts degree in Leadership Studies with an area of emphasis in Justice Leadership requires a minimum of 36 semester hours. A core of 15 hours in Leadership Studies is required. A block of Counseling courses consisting of 18 hours relating to the student’s needs is also required.

Program of Studies ................................................................. 36 hrs.
LS  532  Human Relations in the Public Sector
LS  625  Human Resources Management
LS  645  Community Relations in the Public Sector
LS  615  Leadership in the Public Sector
LS  655  Externship
LS  690  Leadership Capstone Course

Select six (18 hrs.) from:
COUN  555  Crisis Intervention and Conflict Resolution
COUN  556  Death and Grief Counseling
COUN  574  Social and Cultural Foundations
COUN  575  Prevention and Treatment of Addictions
COUN  641  Correctional Counseling Seminar
COUN  654  Ecology of Domestic Violence
COUN  655  Counseling Victims, Perpetrators, and Children of Domestic Violence
COUN  682  Treatment in Trauma Recovery
COUN  683  Psychophysiology of Trauma
COUN  684  Advanced Techniques in Treatment of Trauma and Loss

Leadership Studies, M.A. with Leadership Specialist Area of Emphasis
This program is ideally suited to the needs of working professional adult students who wish to gain leadership skills, but do not want to limit their knowledge to any particular area of study.

Admission Requirements
Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission.

(continued)
In addition, applicants must have:

An undergraduate Grade Point Average (GPA) of 2.75 or higher on a 4.0 scale for all previously completed undergraduate university work.

The applicant may be granted provisional enrollment and directed to complete 12 hours of selected courses designated by the department. If a 3.25 grade point average is maintained in those courses, then the applicant will be admitted to the degree program. All degree students follow a planned program of study and must maintain a cumulative Grade Point Average (GPA) of 3.0.

Program of Studies ................................................................. 30 hrs.

- LS 532 Human Relations in the Public Sector
- LS 625 Human Resources Management
- ATE 689 Grant Proposal Writing for Non-Profit Agencies
- LS 645 Community Relations in the Public Sector
- LS 615 Leadership in the Public Sector
- LS 655 Externship
- LS 690 Leadership Capstone Course
- Nine hours of electives selected to enhance student skills in specific areas

Ed.S. with Area of Emphasis in Leadership Studies

Admission Requirements

Applicants must have a master’s degree in an appropriate field. Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission.

Degree Requirements

A Plan of Study will be sent to the student at the time of admission. Education Specialist degree (Ed.S.) students follow a planned program of study and must maintain a cumulative Grade Point Average (GPA) of 3.0.

Two specializations are offered: Higher Education Administration and Public School Administration.

Program of Studies ................................................................. 30 hrs.

- LS 703 Research Design
- LS 710 Principles of Leadership
- LS 720 Public School Finance OR
- LS 725 Higher Education Finance
- LS 740 Public School Law OR
- LS 745 Higher Education Law
- LS 760 Politics of Education
- EDF 625 Qualitative Research in Education
- EDF 711 Survey Research in Education
- CI 677 Writing for Publication in Professional Education OR
- HUM 604 Expository Writing for Research
- CIEC 700 Technology and Curriculum

Ed.S. with Area of Emphasis in Community College Administration

Program Description

The program is designed to permit specialization in the field of Community College Administration. It incorporates both theory and practical applications and is intended to serve persons who are either currently employed at a community and technical college or wish to pursue a career at a two-year institution. Administrative behavior, organizational structure, governance, and factors that influence institutional decision-making are areas covered in this program.

Admission Requirements

Applicants must have a master’s degree from a regionally accredited institution and work experience that provides an applicable background for the program. Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission.
Degree Requirements

All students follow a program Plan of Study and must maintain a cumulative Graduate Grade Point Average (GPA) of 3.0. (A Plan of Study will be sent to the student at the time of admission.) Course credit transferred from an accredited institution(s) must be approved by the Program Director prior to completion of the Plan of Study. Changes in required courses and the choice of any elective courses must be approved, signed off by the advisor, and recorded on the department copy of the Plan of Study. The Plan of Study is a student’s “blueprint” for completing graduation requirements. Completion of a minimum of 30 hours of planned, approved graduate courses with a 3.25 GPA is required.

All coursework included as part of a Plan of Study must not be more than seven years old at the time of graduation.

Program of Studies .................................................................................................................. 30 hrs.

- LS 703 Research Design
- LS 746
- EDF 625 Qualitative Research in Education
- EDF 679 Problem Report
- EDF 711 Survey Research in Education
- CIEC 700 Technology and Curriculum
- CI 677 Writing for Publication in Professional Education OR
- ATE 703 Interpretation and Utilization of Applied Research in Community and Technical College Teaching
- ATE 714 Community and Technical College Curriculum Design
- ATE 712 Classroom Assessment for Community and Technical College Students

Educational Leadership, Ed.D.

This program is designed to offer the opportunity to earn the Doctor of Education (Ed.D.) degree in Educational Leadership with Areas of Emphasis in Public School Administration, Higher Education Administration or Community College Administration. Coursework and other requirements will be met on the South Charleston campus. The mission of the doctoral program in education is to prepare practitioners to be reflective, ethical educators and researchers who contribute to the field of education. Program faculty are committed to creating a community of scholars through mentoring, engaging in collaborative research, and maintaining a focus on sound educational practices.

Acceptance into the Program

The decision to admit an applicant to doctoral work constitutes a significant commitment from the faculty of the department in the form of advising, teaching, chairing or serving on the student’s committee, preparing and evaluating examinations, and guiding the successful completion of the dissertation. The applicant should note that the decision to admit students to the doctoral program is a collective judgment of the program faculty and represents their determination of the likelihood of the candidate to succeed in all major phases of the degree program. These judgments take into account the applicant’s professional experiences, communication and thinking skills, and other relevant capabilities. Thus, an applicant is not automatically admitted on the basis of meeting only the minimum criteria.

An applicant must have earned at least a master’s degree from an accredited institution in Educational Leadership, Curriculum and Instruction, or a related field. Applicants for Public School Administration must have an earned Principal’s Licensure. Details of all admission requirements and other pertinent information can be found at www.marshall.edu/edd.

CERTIFICATE/LICENSE PROGRAMS IN LEADERSHIP STUDIES

Certificate/Licensure in School Principalship (post-master’s)

This program is designed for students who have completed a master’s degree in education. Students completing the program qualify for professional administrative licensure as a PreK-Adult school principal in West Virginia, Ohio and Kentucky. Those seeking professional administrative licensure as a school principal are required to pass the PRAXIS II (0411) Educational Leadership Administration and Supervision Test. West Virginia students are also required to complete the Evaluation Leadership Institute offered by the West Virginia Center for Professional Development.

Admission Requirements - Principal Licensure and Graduate Certificate Program

An applicant should enroll as a Certificate/Professional Development student and select on the application form “School Principalship.”

(continued)
• A student who desires admission to the Post-Master’s Principal Licensure/Graduate Certificate program must have an overall Graduate Grade Point Average (GPA) of 3.0 on a 4.0 scale in an education field from an ELCC-accredited institution.

• Transcripts from the student’s graduate institution(s) must be provided to Graduate Admissions at the time of application.

• Students are also required to have a Professional Teaching Certificate and a minimum of one year of teaching experience at the time of application.

Program of Studies ........................................................................................................... 18 hrs.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS 510</td>
<td>The Principalship</td>
</tr>
<tr>
<td>LS 610</td>
<td>Leadership for School Improvement</td>
</tr>
<tr>
<td>LS 612</td>
<td>Education Technology for Administrators</td>
</tr>
<tr>
<td>LS 630</td>
<td>School and the Community</td>
</tr>
<tr>
<td>LS 675</td>
<td>Legal and Policy Issues</td>
</tr>
<tr>
<td>LS 660</td>
<td></td>
</tr>
</tbody>
</table>

Certificate/Licensure in Social Service and Attendance

This program provides the required coursework for Social Service and Attendance licensure. The program is designed for educational personnel who hold a valid license, or for social workers who hold at least a bachelor’s degree.

Admission Requirements – Social Service and Attendance Licensure/Graduate Certificate Program

An applicant should apply as a Certificate/Professional Development student and select on the application form “Social Service and Attendance.”

• Transcripts from the student’s undergraduate institution(s) must be provided to Graduate Admissions at the time of application.

• Each candidate for the Social Services and Attendance Worker licensure must meet all admission requirements as a degree student. Scores from the Graduate Record Examination, the Miller Analogies Test, or a previous master’s degree from an accredited institution must be on file at the time of admission. Students must score at least a 40 (tested prior to October 2004) or at least a 392 (after October 2004) on the Miller Analogies Test. Students who take the Graduate Record Examination must have a combined score of 800 verbal and quantitative (tested prior to November, 2011) or at least a 286 (November, 2011 or after).

• All students follow a planned program of study and must maintain a cumulative Grade Point Average (GPA) of 3.0.

Program of Studies ........................................................................................................... 12 hrs.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COUN 670</td>
<td>Interventions for Current Issues in School Counseling OR</td>
</tr>
<tr>
<td>COUN 673</td>
<td>Counseling Children, Adolescents, and Parents</td>
</tr>
<tr>
<td>LS 693</td>
<td>School Law for Support Personnel</td>
</tr>
<tr>
<td>LS 691</td>
<td>The Attendance Director</td>
</tr>
<tr>
<td>LS 692</td>
<td>Internship: School Social Services</td>
</tr>
</tbody>
</table>

Licensure in Supervisor of Instruction

Students who hold a Master’s Degree in Educational Leadership from an ELCC nationally recognized program may add the West Virginia Supervisor of Instruction licensure by completing LS 661. This licensure is for persons who work in central office supervisory positions.

School Superintendent Licensure

Students who hold a master’s degree in educational leadership program from an ELCC nationally recognized program will need the following additional courses to complete the licensure requirements for School Superintendency:

Program of Studies ........................................................................................................... 21 hrs.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS 700</td>
<td>Superintendency</td>
</tr>
<tr>
<td>LS 710</td>
<td>Principles of Leadership</td>
</tr>
<tr>
<td>LS 720</td>
<td>Public School Finance</td>
</tr>
<tr>
<td>LS 730</td>
<td>Facility Planning and Management</td>
</tr>
</tbody>
</table>
LITERACY EDUCATION, M.A.

Program Description
The Master of Arts in Literacy Education consists of six foundation courses, four advanced courses, two of which are practicum experiences, and two elective courses, for a total of 36 credit hours.

Admission Requirements
Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission

In addition, applicants must have:
- An undergraduate Grade Point Average (GPA) of 2.7 or higher on a 4.0 scale for all previously completed undergraduate university work;
- A valid WV teaching certificate;
- Graduate Record Examinations (CRE) General Test combined verbal and quantitative score of 286 or above or a score of 389 on the MAT.
- A minimum of one year of teaching experience or equivalent as a long-term substitute by the time of program completion.

Program Requirements
Degree candidates follow a planned program of study and must maintain a cumulative Grade Point Average (GPA) of 3.0. The program of study includes several assessments that are completed as candidates move through the program.

Plan of Study
A Plan of Study approved by the student’s advisor must be on file with the Literacy Education Program within 30 days of acceptance into the program. The Plan of Study is a student’s “blueprint” for completing graduation requirements.

- CIRG 636 Developmental Reading
- CIRG 644 Content Literacy
- CIRG 615 Writing in the Literacy Curriculum
- CIRG 653 Literacy Acquisition
- CIRG 622 The Use of Technology for Literacy Instruction
- CIRG 637 Literacy Assessment
- CIRG 654 Aligning Assessment and Instruction
- CIRG 643 Teaching Struggling Readers: A Practicum
- CIRG 623 Reading Instruction for Literacy Facilitators: A Practicum
- CIRG 621 Current Issues and Problems in Reading
- Two electives, chosen in consultation with the program advisor.

This program requires six hours of supervised practicum and a series of performance assessments completed as candidates move through the program.

Ed.S. WITH AREA OF EMPHASIS IN LITERACY EDUCATION
The Graduate School of Education and Professional Development offers an Education Specialist degree (Ed.S.) with an area of emphasis in Literacy. The goal of the Education Specialist (Ed.S.) program is to provide a unified sequence of graduate studies for school and related personnel who wish to achieve proficiency beyond the master’s level in Literacy Education. Please contact the Literacy Education program faculty for additional information.

Admission Requirements
Applicants must have a master’s degree in an appropriate field. Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission.
Degree Requirements

Education Specialist degree (Ed.S.) students follow a planned program of study and must maintain a cumulative Grade Point Average (GPA) of 3.0.

Core ................................................................................................................................................. 15

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS 703</td>
<td>Research Design</td>
</tr>
<tr>
<td>EDF 625</td>
<td>Qualitative Research in Education OR</td>
</tr>
<tr>
<td>EDF 626</td>
<td>Advanced Qualitative Research in Education</td>
</tr>
<tr>
<td>CIEC 700</td>
<td>Technology and Curriculum</td>
</tr>
<tr>
<td>EDF 711</td>
<td>Survey Research in Education</td>
</tr>
<tr>
<td>CI 677</td>
<td>Writing for Publication in Professional Education OR</td>
</tr>
<tr>
<td>HUM 604</td>
<td>Expository Writing for Research</td>
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</table>

Area of Emphasis: .........................................................................................................................12

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIRG 701</td>
<td>Literacy Education Seminar I</td>
</tr>
<tr>
<td>CIRG 702</td>
<td>Literacy Education Seminar II</td>
</tr>
<tr>
<td>CIRG 703</td>
<td>Literacy and Literacy-Related Tests and Techniques OR</td>
</tr>
<tr>
<td>CIRG 704</td>
<td>Advanced Instructional Literacy Processes</td>
</tr>
<tr>
<td>CIRG 707</td>
<td>Issues in Reading</td>
</tr>
</tbody>
</table>

Capstone: ......................................................................................................................................... 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDF 679</td>
<td>Problem Report</td>
</tr>
</tbody>
</table>

TOTAL ..................................................................................................................30

ADDITIONAL LITERACY ENDORSEMENTS AND CERTIFICATES FOR TEACHERS

Teachers who want to add another teaching endorsement may do so by completing the course requirements and performance assessments, and the appropriate PRAXIS II test.

The program offers two certificate programs that support literacy education.

Programs marked with an asterisk (*) may be used as endorsements for teaching reading. Programs marked with a plus sign (+) may be used as graduate certificates.

Certificate Program Admission Requirements

Prospective certificate-only students should apply for admission to Marshall University as a Certificate/Professional Development student and select on the application form the certificate they wish to pursue.

*Literacy Specialist (24 hours)

Admission to this program is suspended.

*Literacy Education (18 hours)

The Literacy Education Certificate is intended for educators who hold an initial teaching license and wish to become highly qualified teachers of reading. It consists of six courses, with embedded field-experiences and leads to a reading endorsement at either the elementary or secondary level.

Admission Requirements

1. An initial undergraduate degree in education from a regionally accredited college or university; and
2. A valid teaching license

Program Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIRG 636</td>
<td>Developmental Reading</td>
</tr>
<tr>
<td>CIRG 633</td>
<td>Literacy Acquisition</td>
</tr>
<tr>
<td>CIRG 644</td>
<td>Content Literacy</td>
</tr>
<tr>
<td>CIRG 615</td>
<td>Writing in the Literacy Curriculum</td>
</tr>
<tr>
<td>CIRG 622</td>
<td>The Use of Technology for Literacy Instruction</td>
</tr>
<tr>
<td>CIRG 637</td>
<td>Literacy Assessment</td>
</tr>
</tbody>
</table>

A series of performance assessments completed as candidates move through the program.
Family Literacy (12 hours)

Admission Requirements

A relevant undergraduate degree, as determined by the Literacy Education program, from a regionally accredited college or university is needed for admission to the program.

Program Requirements

- CIRG 653 Literacy Acquisition
- CIRG 651 Principles of Family Literacy
- CIRG 652 Implementing and Evaluating a Family Literacy Program
- CI 634 Language and Cognition in Early Childhood

SCHOOL PSYCHOLOGY, Ed.S.

Program Description

The Ed.S. program in School Psychology is designed to prepare students to meet the Department of Education requirements for certification in West Virginia and other states. It is approved by the National Association of School Psychologists (NASP).

Prior to pursuing the 42 hours of required coursework and field experiences that lead to the Ed.S. in School Psychology, a student must first complete the M.A. degree in Psychology with an area of emphasis in School Psychology, described in the Psychology section of this catalog. After successfully completing the first semester of the master’s degree program, students may apply to the Ed.S. program.

Students already possessing graduate degrees in psychology, counseling or education do not need to obtain the M.A. degree in Psychology with an area of emphasis in School Psychology. When these students apply to the Ed.S. in School Psychology program, they will be considered for advanced standing based upon a review of coursework, grades, and test scores by the School Psychology faculty.

Admission Requirements

Admission is competitive because of the limited number of available internships. Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission.

In addition, applicants must:

- submit a sample of their professional writing (a scholarly paper on any subject) and a statement of their professional goals (1000 words or fewer). Submit all materials to Graduate Admissions.

Creating a diverse student body is a priority and minority applicants are encouraged to apply. A limited number of graduate assistantships are available. Students can be accepted into the school psychology program throughout the school year; however, school psychology competency classes begin in the fall semester of each academic year.

Program Requirements

During the second semester in the master’s degree in psychology with an emphasis in School Psychology, students will apply for admission to the Ed.S. in School Psychology program. Students are admitted to the Ed.S. program with the expectation that they will complete the program within three to five years, depending on the number of classes in which they enroll each semester. Students are expected to enroll in all three semesters. Failure to make the expected amount of progress may result in reassignment to another internship year.

The internship requires a commitment to a school system for a full academic year and is 1200 hours (12 credit hours). A maximum of 18 students will be admitted to this final-year experience. This paid internship must occur within a school setting and meet stringent criteria specified by the program and the National Association of School Psychologists. In addition, students must complete a thesis or program evaluation and earn a passing score on Praxis II Specialty Area Test in School Psychology before graduation.

*Plans of study marked with an asterisk (*) may be used as endorsements for teaching certification. Endorsement programs are available only to teachers who hold a valid professional license in any area other than the one for which endorsement is desired.

+Plans of study marked with a plus sign (+) may be used as graduate certificate programs. Certificate coursework may be taken as a stand-alone program.
Plan of Study: Ed.S. in School Psychology

Requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPSY 603</td>
<td>Professional Competence II: Professional School Psychology</td>
</tr>
<tr>
<td>SPSY 620</td>
<td>Indirect Service Delivery II: Primary Prevention</td>
</tr>
<tr>
<td>SPSY 622</td>
<td>Data Based Decision Making II</td>
</tr>
<tr>
<td>SPSY 624</td>
<td>Data Based Decision Making III</td>
</tr>
<tr>
<td>SPSY 720</td>
<td>Counseling with Youth: Advanced Topics</td>
</tr>
<tr>
<td>SPSY 738</td>
<td>School Psychology Practicum I</td>
</tr>
<tr>
<td>SPSY 739</td>
<td>School Psychology Practicum II</td>
</tr>
<tr>
<td>SPSY 740</td>
<td>School Psychology Practicum III</td>
</tr>
<tr>
<td>SPSY 745</td>
<td>Internship in School Psychology</td>
</tr>
<tr>
<td>SPSY 750</td>
<td>Research III: Thesis Research</td>
</tr>
<tr>
<td>SPSY 751</td>
<td>Program Evaluation</td>
</tr>
<tr>
<td>CIRG 636</td>
<td>Educational Foundations II: Developmental Reading</td>
</tr>
</tbody>
</table>

Defend Thesis

Take Praxis II Specialty Examination in School Psychology

Total of 42 hours required

SPECIAL EDUCATION, M.A.

Areas of Emphasis

- Autism
- Deaf and Hard of Hearing
- Multi-Categorical Special Education
- Preschool Special Education
- Teaching Visually Impaired

Admission Requirements for Special Education M.A.

All applicants (including those seeking admission as professional development (certification only), should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission.

Applicants must:
- Have an undergraduate Grade Point Average (GPA) of 2.50 or higher on a 4.0 scale for all previously completed undergraduate university work.
- Meet one of the following two requirements:
  - A total of 286 on the verbal and quantitative sections of the Graduate Record Examinations (GRE) or
  - A raw score of at least 30 or a scaled score of 378 on the Miller Analogies Test (MAT)

Program Requirements for Special Education M.A.

A master’s degree may be earned with a specialization in any of the Areas of Emphasis listed below. Students without a background in education must acquire certification in regular education prior to endorsement in Special Education, or they can enter the Non-Education Certification program (see Section 6 under Program of Study). The Preschool Special Education endorsement is exempt from this requirement.

Plan of Study

A Plan of Study approved by the student’s advisor must be submitted for approval to the Graduate College Dean before the student registers for his or her 12th semester hour. The Plan of Study is a student’s “blueprint” for completing graduation requirements.
Program of Study - M.A. in Special Education

1. Master’s Degree Requirements ................................................................. 9 hrs.
   CISP 611 Special Education Research Part I
   CISP 615 Special Education Research Part II
   CISP 627 Trends and Issues in Special Education OR
   CISP 629 Special Education: Seminar

2. Special Education Core: ................................................................................. 18 hrs.
   CISP 520 Introduction to Exceptional Children
   CIEC 534 Applications Software in the Classroom Curriculum Area
   CISP 606 Reading Strategies for Exceptional Children
   CISP 607 Math Strategies for Exceptional Children
   CIRG 644 Literacy in the Content Area
   CISP 626 Special Education: Diagnostic-Clinical Practices

3. Certification Area (select one)

   Autism
   CISP 527 Introduction to Autism
   CISP 662 Instructional Characteristics of Autism
   CISP 664 Practicum in Autism

   Deaf and Hard of Hearing (special education core not required)
   CIDH 501 American Sign Language (ASL) I
   CIDH 502 American Sign Language (ASL) II
   CIDH 504 Auditory Habilitation: Communication Approaches and Sensory Devices for Children with Hearing Loss
   CIDH 505, Introduction to Deaf and Hard of Hearing
   CIDH 506 Curriculum and Methods for Deaf and Hard of Hearing Students
   CIDH 601 Teaching Internship and Practicum (Deaf/Hard of Hearing) I (Residential)
   CIDH 602 Teaching Internship and Practicum (Deaf/Hard of Hearing) I (Local School District)
   CIDH 607, Development and Remediation of Reading, Writing, and Discourse for the Deaf and Hard of Hearing
   CISP 607 Math Strategies for Exceptional Students
   CIEC 534 Applications Software in the Classroom Curriculum Area

   Vision Impaired (special education core not required)
   CIVI 500 Introduction to Visual Impairments
   CIVI 501 Reading and Writing Strategies/Instruction for Students with Visual Impairments
   CIVI 502 Structures and Functions of the Human Visual Systems
   CIVI 503 Assessment and Program Planning of Students with Visual Impairments
   CIVI 504 Assessment and Program Planning of Students with Visual Impairments and Additional Disabilities
   CIVI 505 Braille
   CIVI 506 Math Methods for Visually Impaired
   CIVI 601 Practicum in Visual Impairment I
   CIVI 602 Practicum in Visual Impairment II
   CIVI 603 Basic Orientation and Mobility Skills
   CIEC 534 Applications Software in the Classroom Curriculum Area

   Multicategorical
   CISP 553 Characteristics/Methods Intellectual Disabilities
   CISP 647 Characteristics/Methods Specific Learning Disabilities
   CISP 645 Characteristics/Methods Emotionally Disturbed
   CISP 655 Field Experience: Multicategorical: Mild/Moderate ID

4. Electives ............................................................................................................................... 0 - 9 hrs.

Total hours ................................................................................................ 36-39 hrs.

(continued)
5. **Preschool Special Education**

General Education: ................................................................................................................. 6 hrs.

- EDF 621 Educational Research and Writing OR
- EDF 625 Qualitative Research in Education
- CISP 627 Trends and Issues in Special Education OR
- CISP 629 Special Education: Seminar

Early Childhood Education ........................................................................................................ 6 hrs.

- CI 632 Early Childhood Education: Early Childhood Programs
- CI 634 Language and Cognition in Early Childhood

Special Education: .................................................................................................................... 27 hrs.

- CISP 520 Introduction to Exceptional Children
- CISP 529 Introduction to the Physically Handicapped
- CISP 554 Working with Families of Exceptional Students
- CISP 661 Introduction to Preschool Special Education
- CISP 663 Developmental Issues in Preschool Special Education
- CISP 665 Assessment in Preschool Special Education
- CISP 666 Curriculum and Methods in Preschool Special Education
- CISP 674 Practicum: Preschool Special Education

Due to the nature of a student’s undergraduate program the total required in Preschool Special Education may only be 36.

**Total hours for Preschool Special Education** ................................................... 36 - 39 hrs.

6. **Non-Education Certification Program**

The Non-Education Certification Program is designed to allow candidates from non-education backgrounds to obtain West Virginia teacher licensure in Visual Impairments, Multicategorical, and Autism at the 5-Adult level. The non-education program does not include a general education teaching endorsement.

Students must meet all Special Education Program admission requirements. In addition to the general Special Education Admission requirements, applicants must pass the Praxis I (Pre-Professional Skills Test) in Reading, Mathematics, and Writing within their first twelve hours of coursework. The Praxis I requirement is waived for applicants with an enhanced ACT score of 26 or higher, a re-centered SAT score of 1125 or higher or if the applicant holds a master’s degree.

Current West Virginia Department of Education initial certification requirements also require a minimum overall GPA of 2.5, as well as a 2.5 GPA in the content specialization area. Candidates in the Non-Education Certification program must also meet the WVDE Praxis II testing requirements including the Principles of Learning and Teaching (PLT) test at the 5-9 or 7-12 levels.

In addition to the Special Education Core and Certification Area course requirements, students in the Non-Education Certification program must complete EDF 619 and EDF 616 for certification. Additional master’s degree requirements are the same as for all other Special Education master’s degree programs.

**Additional Certification Requirements**

All Special Education majors must pass the Praxis II Test in the area(s) in which they seek endorsement. The Special Education Content Specialization Test is taken at or near the end of the certification coursework in Special Education. Students should contact the Special Education Program Area for additional information about these tests.

**Special Note**

The reauthorization of the Individuals with Disabilities Education Act (IDEA) has strengthened the requirements in the definition of “highly qualified” for special education teachers if they provide direct instruction in core academic subject areas (English, mathematics, science, etc.). Applicants’ transcripts and teacher licenses will be analyzed upon admission to determine what, if any, additional coursework may be required to meet the federal requirements.
TEACHING, M.A.T.
Post-Baccalaureate Teacher Certificate

Program Description: Master of Arts in Teaching
The Master of Arts in Teaching (M.A.T.) degree program is an alternative means for college graduates with degrees in liberal arts, fine arts, and professional fields to attain teacher certification. The program provides the professional education courses and clinical experiences, including student teaching, necessary to prepare individuals for teaching a specific content area in grades PreK-Adult, 5-Adult or 9-Adult. Program completion results in the awarding of a Master of Arts in Teaching degree. Recommendation for certification typically takes place at the same time, unless there are West Virginia Department of Education requirements still pending. Please note that the M.A.T. program does not offer certification in Elementary Education or Special Education.

Admission and Program Requirements: Master of Arts in Teaching
Candidates must request a transcript analysis through a certification officer either in Huntington or South Charleston. An unofficial copy of the transcript may be used for the analysis. The analysis will identify the courses that can be used to meet content licensure requirements and the list of additional courses needed. Candidates must have at least 50% of the required content courses.

1. Candidates deciding to apply to the program after reviewing the transcript analysis should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission Please note that all admissions documents must be submitted to Graduate Admissions before an applicant will be considered for admission.
2. In addition to university admission requirements, applicants must have an overall Grade Point Average (GPA) of 2.80 or higher on a 4.0 scale for all previously completed coursework and a GPA of 2.80 in the content area, must meet the Praxis Core requirement, and must submit Graduate Record (GRE) or Miller Analogies Test (MAT) scores with a required minimum total score of 286 on the GRE verbal and quantitative sections (or the equivalent on the GRE prior to Fall 2011), or a minimum score of 387 on the MAT.
3. An applicant may qualify for an exemption of the Praxis Core if he or she has an enhanced ACT score of 26 or higher, a revised SAT score of 1170 or higher, a master's degree or higher, or has completed the Post Baccalaureate Teacher Certificate program through Marshall University and has already been granted a West Virginia Teacher License.
4. Applicants must take and pass all three subtests (reading, writing and math) of the Praxis Core prior to being admitted to the MAT program. The required Praxis Core scores are Reading = 156, Writing =162, and Math = 150.
5. Students may enroll in graduate courses only after they have been fully admitted to the university and the MAT program. All students must maintain a cumulative Grade Point Average of 3.0.
6. A Plan of Study approved by the student’s advisor must be submitted for approval to the Graduate College Dean before the student registers for his or her 12th semester hour. The Plan of Study is a student’s “blueprint” for completing graduation requirements.
7. In the last semester of the program, students will be enrolled in EDF 677, MAT Level III Clinical Experience, a 15 week, full-time student teaching experience under the direct supervision of a certified teacher(s). Prerequisites for student teaching include the following: 3.0 GPA in all graduate MAT courses; completion of at least 90% of content courses (100% recommended); completion of EDF 537 and EDF 637, Level I and II Clinical Experiences; completion of all MAT coursework and the Praxis content test(s).
8. Before a candidate may apply for certification/licensure, he or she must take and pass the Praxis, Principles of Learning and Teaching (PLT) Grades 7-12. The PLT may be taken during or following the final semester in the MAT program.
9. Upon completion of the MAT program and all testing requirements, the student should apply for licensure. The teaching license is awarded by the West Virginia Department of Education; however, the candidate must be recommended for licensure by the institution.

Program Options and Degree Requirements: Master of Arts in Teaching
1. Master of Arts in Teaching - Grades PreK-Adult
   • Art Education
   • Japanese
   • Music Education
   • Wellness

(continued)
Foundations of Education and Technology............................................................. 15 Hours

Research and Writing (3 hrs.)
  EDF  621  Educational Research and Writing OR
  EDF  625  Qualitative Research in Education

Social and Cultural Foundations (3 hrs.)
  EDF  665  Sociology of American Schools OR
  EDF  615  History of Education in the United States

Development or Psychology (3 hrs.)
  EDF  616  Advanced Studies in Human Development....................................................OR
  EDF  619,  Educational Psychology
  EDF  537  Clinical I  ·  Lab to accompany EDF 616 or EDF 619

Instructional Technology (3 hrs.)
  CIEC  534  Applications Software in the Classroom Curriculum Area OR
  CIEC  600  Instructional Design and Technology OR
  CIEC  635  Using the Internet in the Classroom

Evaluation or Assessment (3 hrs.)
  EDF  612  Educational Evaluation
  EDF  636  Classroom Assessment

Curriculum and Instruction ................................................................. 24 Hours
  CI  503  Methods and Materials of Teaching
             in the Middle Childhood Grades
  CISP  510  Intro. to Instructional Practices/Exceptional Children
  CISP  521  Children with Exceptionalities
  CI  515  Integrated Methods and Materials
  EDF  637  Clinical II  ·  Lab to accompany CI 515
  CI  624  Advanced Instructional Strategies
  CI  631  Current Influences on Early Childhood
  CIRG  644  Literacy in the Content Area
  *EDF  677  Clinical III  ·  Student Teaching

In addition to the preceding courses, students must also complete all courses in their teaching specialization.

TOTAL ...................................................................................................... 39 Hours

*Requires minimum of 90% completion of content courses and passing score(s) on the Praxis content examination(s).

2. Master of Arts in Teaching - Grades 5-Adult

  •  English
  •  Mathematics
  •  General Science
  •  Social Studies
  •  Spanish

Foundations of Education and Technology............................................................. 15 Hours

Research and Writing (3 hrs.)
  EDF  621  Educational Research and Writing OR
  EDF  625  Qualitative Research in Education

Social and Cultural Foundations (3 hrs.)
  EDF  665  Sociology of American Schools OR
  EDF  615  History of Education in the United States

Development or Psychology (3 hrs.)
  EDF  616  Advanced Studies in Human Development OR
  EDF  619,  Educational Psychology

122  Degree Programs and Requirements  Marshall University
EDF 537 Clinical I - Lab to accompany EDF 616 or EDF 619

Instructional Technology (3 hrs.)
CIEC 534 Applications Software in the Classroom Curriculum Area
CIEC 600 Instructional Design and Technology
CIEC 635 Using the Internet in the Classroom

Evaluation or Assessment (3 hrs.)
EDF 612 Educational Evaluation
EDF 636 Classroom Assessment

Curriculum and Instruction ................................................................. 24 Hours
CI 501 Middle Childhood Curriculum
CI 503 Methods and Materials of Teaching in the Middle Childhood Grades
CISP 510 Intro. to Instructional Practices/Exceptional Children
CISP 521 Children with Exceptionalities
CI 515 Integrated Methods and Materials
EDF 637 Clinical II - Lab to accompany CI 515
CI 624 Advanced Instructional Strategies
CIRG 644 Literacy in the Content Area
*EDF 677 Clinical III - Student Teaching

In addition to the above courses, students must also complete all courses in their teaching specialization.

TOTAL ................................................................. 39 Hours

*Requires minimum of 90% completion of content courses and passing score(s) on Praxis content examination(s).

3. Master of Arts in Teaching - Grades 9-Adult
   • Biology
   • Chemistry
   • Physics

   Foundations of Education and Technology.............................................. 15 Hours

Research and Writing (3 hrs.)
EDF 621 Educational Research and Writing OR
EDF 625 Qualitative Research in Education

Social and Cultural Foundations (3 hrs.)
EDF 665 Sociology of American Schools OR
EDF 615 History of Education in the United States

Development or Psychology (3 hrs.)
EDF 616 Advanced Studies in Human Development................................. OR
EDF 619 Educational Psychology
EDF 537 Clinical I - Lab to accompany EDF 616 or EDF 619

Instructional Technology (3 hrs.)
CIEC 534 Applications Software in the Classroom Curriculum Area OR
CIEC 600 Instructional Design and Technology OR
CIEC 635 Using the Internet in the Classroom

Evaluation or Assessment (3 hrs.)
EDF 612 Educational Evaluation OR
EDF 636 Classroom Assessment

Curriculum and Instruction ................................................................. 24 Hours
CISP 510 Intro. to Instructional Practices/Exceptional Children

(continued)
CISP 521  Children with Exceptionalities
CI 515  Integrated Methods and Materials
EDF 637  Clinical II - Lab to accompany CI 515
CI 624  Advanced Instructional Strategies
CIRG 644  Literacy in the Content Area
CI 549  Instructional and Classroom Management in Secondary Education
EDF or CI Elective (3 hrs.)
*EDF 677  Clinical III - Student Teaching

In addition to the above courses, students must also complete all courses in their teaching specialization.

TOTAL .......................................................................................................39 Hours

*Requires minimum of 90% completion of content courses and passing score on Praxis content examination.

Post-Baccalaureate Teacher Certificate Program

In West Virginia the license to teach is granted by the West Virginia Department of Education and is typically issued upon the completion of a four-year undergraduate program of study that included content and professional education courses. The Post-Baccalaureate Teacher Certificate (PBC) program offers an accelerated route to teacher certification for persons who already have undergraduate degrees in content areas such as chemistry, music, and other liberal and fine arts, or professional fields. Using the previously completed content courses as a foundation, this program provides the required professional education courses at the graduate level. Additional undergraduate classes may be needed in the content area.

Upon successful completion of the PBC program, all content courses, and testing requirements, the candidate earns a recommendation to the West Virginia Department of Education for a teaching certificate at the secondary level and is eligible to apply for a certificate from the university. The PBC does not include Elementary Education or Special Education certification.

Admission to PBC and Licensure Requirements

1. Candidates must request a transcript analysis through a certification officer either in Huntington or South Charleston. An unofficial copy of the transcript may be used for the analysis. The analysis will identify the courses that can be used to meet content licensure requirements and the list of additional courses needed. Candidates must have at least 90% of the required content courses.

2. Candidates deciding to apply to the program after reviewing the transcript analysis should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission Students should apply as Certificate/Professional Development students and select the Post-Baccalaureate Teacher Certificate on the admissions form. Please note that all admissions documents must be submitted to Graduate Admissions before an applicant will be considered for admission.

3. In addition to university admissions requirements, applicants must have an overall GPA of 2.80 and a GPA of 2.80 in the content area, and must meet the Praxis Core requirement.

4. An applicant may qualify for an exemption of the Praxis Core if he or she has an enhanced ACT score of 26 or higher, a revised SAT score of 1170 or higher, or a master's degree or higher.

5. Applicants must take and pass all three subtests (reading, writing and math) of the Praxis Core prior to being admitted to the PBC program. The required Praxis scores are Reading = 156, Writing = 162, and Math = 150.

6. Students may enroll in graduate courses only after they have been fully admitted to the PBC program. All students must maintain a cumulative Grade Point Average of 3.0.

7. In the last semester of the program students will be enrolled in EDF 677, MAT Level III Clinical Experience, a 15 week, full-time student teaching experience under the direct supervision of a certified teacher(s). Prerequisites for student teaching include the following: 3.0 GPA in all graduate PBC courses; completion of at least 90% of content courses (100% recommended); completion of EDF 537 and EDF 637, Level I and II Clinical Experiences; completion of all PBC coursework and the Praxis content test(s).

8. Before a candidate may apply for certification/licensure, he or she must take and pass the Praxis Principles of Learning and Teaching (PLT) Grades 7-12. The PLT may be taken during or following the final semester in the PBC program.

9. Upon completion of the PBC program and all testing requirements, the student should apply for licensure. The teaching license is awarded by the West Virginia Department of Education; however, the candidate must be recommended for licensure by the institution.
Program Requirements

Foundations of Education................................................................. 6 hours
  EDF 616  Advanced Studies in Human Development......................OR
  EDF 619  Educational Psychology
  EDF 537  Clinical I - Lab to accompany EDF 616 or EDF 619
  EDF 612  Educational Evaluation OR
  EDF 636  Classroom Assessment

Curriculum and Instruction ................................................................ 12 Hours
  CISP 510  Intro. to Instructional Practices/Exceptional Children
  CISP 521  Children with Exceptionalities
  CIRG 644  Literacy in the Content Area
  CI 515  Integrated Methods and Materials
  EDF 637  Clinical II - Lab to accompany CI 515

Technology.................................................................................. 3 Hours
  CIEC 534  Applications Software in the Classroom Curriculum Area OR
  CIEC 600  Instructional Design and Technology OR
  CIEC 635  Using the Internet in the Classroom

Supervised Student Teaching ......................................................... 3 Hours
  *EDF 677  Clinical III - Student Teaching

Total ............................................................................................. 24 Hours

Eligibility for Student Teaching: Students must successfully complete the courses listed above, the appropriate Praxis content knowledge test(s), and have 90% of their content requirements completed prior to enrolling for supervised student teaching.

Eligibility for Licensure: Students must meet content requirements, professional education requirements, and testing requirements. Testing requirements include the appropriate Praxis content knowledge test(s), and the Principles of Learning and Teaching (PLT). Students who apply for licensure from the West Virginia Department of Education are required to submit to the department a fingerprint card for federal and state background checks.

Certification Options:
  Art Education, grades PreK-Adult
  Biological Science, grades 9-Adult
  Chemistry, grades 9-Adult
  English, grades 5-Adult
  General Science, grades 5-Adult
  Japanese, grades PreK-Adult
  Mathematics, grades 5-Adult
  Music, grades PreK-Adult
  Physics, grades 9-Adult
  Social Studies, grades 5-Adult
  Spanish, grades 5-Adult
  Wellness, grades PreK-Adult
COMMUNICATION DISORDERS, M.S.

Program Description
The graduate program of the Department of Communication Disorders is accredited by the Council on Academic Accreditation (CAA) of the American Speech-Language-Hearing Association. The Department of Communication Disorders offers a Master of Science degree. Communication Disorders majors at the graduate level follow a prescribed program leading to eligibility for national certification in Speech-Language Pathology by the American Speech-Language-Hearing Association and licensure by the West Virginia Board of Examiners for Speech-Language Pathology and Audiology. Students wishing to be eligible for West Virginia certification as public school speech-language pathologists must also meet the requirements for such certification.

Admission Requirements
Applicants should follow the admissions process described in this catalog.

The Department of Communication Disorders at Marshall University is participating in the central application system known as CSDCAS. Applicants will apply online using the CSDCAS application. To learn more about the CSDCAS application process, visit http://capcsd.org/csdcas/students.php.

In addition, applicants must also meet the requirements below. All application materials, except transcripts, must be received by January 15. Transcripts must be received by CSDCAS by February 1.

1. An undergraduate degree (or pending degree) in Communication Disorders from an accredited institution is required. Students with deficits in undergraduate coursework, or those wishing public school certification, may need to complete additional requirements. Applicants must submit their most recent transcript, including grades for the fall semester that precedes the application deadline. Grades from the fall semester that precedes the application deadline may be submitted via an official or unofficial transcript, as official transcripts may not be available by the application deadline. If you will be taking Communication Disorders coursework after the date in which your transcript was submitted, provide this information, including course title(s), in your personal statement. Students admitted to the graduate program will be required to submit final transcripts following completion of the undergraduate degree.

2. An Overall and Communication Disorders Grade Point Average of at least 3.0 is required for full-time admission. A student may be admitted for provisional enrollment with an Overall or Communication Disorders GPA between 2.5 - 3.0 when the applicant possesses a degree and shows academic promise, but does not meet the criteria for full admission. Refer to the Graduate College for further explanation of “provisional enrollment.”

3. All students must submit GRE Scores (within the last 5 years)

4. All students must submit a personal statement or letter of intent.

5. All students must submit three letters of recommendation from individuals who can comment on the applicant’s academic and/or clinical performance and potential. At least one letter must be from one of the applicant’s classroom instructors in communication disorders.

All completed applications are reviewed on an ongoing basis in the spring semester each year.

Students admitted to the program who fail to enroll in the fall semester, as well as students already in the program who fail to enroll for a semester without prior permission from their academic advisor, are considered withdrawn from the program and not eligible for future enrollment.

NOTE: Applicants who are accepted to the graduate program will be simultaneously admitted as students in the Graduate College.

International applicants will be required to submit an official TOEFL score in addition to the other requirements described for consideration. The minimum TOEFL scores to be considered for admission must be a Total Score of 89 with the minimum section requirement of “Speaking” of 26. International applicants will have to complete their credential evaluation at an approved agency to prove that their education is equivalent to the U.S. undergraduate education. Documentation will need to be submitted with the application through CSDCAS. Please visit www.marshall.edu/admissions for more information and follow the instructions on the website of Marshall University Graduate College (www.marshall.edu/graduate/admissions/international-admission)

Program Requirements
A minimum of 35 graduate credit hours of academic coursework is required in addition to clinical practicum. All practicum necessary to complete certification requirements must be completed prior to graduation. Minimum practicum
The student and advisor will develop a Plan of Study or blueprint for graduation requirements. The Plan of Study must be on file in the Graduate College office before the student registers for the 12th semester hour.

The Speech-Language Pathology specialty area exam of the ETS Praxis Series serves as the comprehensive examination required for all students. A score of 163 or better is considered passing and is required for graduation. In addition to the comprehensive examination, a candidate who writes a thesis will be required to pass an oral examination on the thesis.

Students should consult the department chair, their Communication Disorders academic advisor, and the clinic handbook regarding all academic and clinical requirements and standards specific to the program.

**Dietetics, M.S.**

**Dietetic Internship Certificate**

**Program Description**

The mission of the Master of Science degree program is to prepare graduates to practice in advanced level professional positions in the fields of clinical nutrition, community nutrition, and/or food and nutrition management. The program offers a unique opportunity to dietetics professionals in southern West Virginia. It is open to persons who have completed a bachelor’s degree in dietetics at a regionally accredited institution and have been admitted to the dietetic internship certificate program or are currently a Registered Dietitian.

**Admission Requirements**

Prospective students who wish to apply for admission to the master’s degree program must meet the admission requirements for the internship, which are available at [www.marshall.edu/dietetics](http://www.marshall.edu/dietetics). Submit official GRE scores to the Graduate Admissions Office.

Upon successful completion of the internship certificate program, students will submit an additional application requesting full admission to the master’s program.

Any other prospective students must currently hold the status of Registered Dietitian through the Commission on Dietetic Registration. Admission of these students will be handled on a case-by-case basis by the department. They should follow the admissions process described in this catalog or at the Graduate Admissions website at [www.marshall.edu/graduate/admissions/how-to-apply-for-admission](http://www.marshall.edu/graduate/admissions/how-to-apply-for-admission).

**Program Requirements**

Students presently enrolled in or who have completed the internship certificate program, which consists of seven courses, accumulate 21 graduate credits, which provide the basis for the master’s degree. The degree consists of a total of 36 graduate credit hours.

The student and advisor will develop a Plan of Study or blueprint for graduation requirements. The Plan of Study must be on file in the Graduate College office before the student registers for the 12th semester hour.

- In addition to the internship certificate requirements, students pursuing a master’s degree choose from one of three concentration areas: clinical nutrition, community nutrition, or food/nutrition management.
- Course requirements can vary and must be approved by the student’s advisor.
- Students are provided with an option to complete a thesis and nine additional hours of coursework in the chosen area of concentration. Those choosing a thesis option will be required to defend the thesis orally.
- Students choosing a non-thesis option will be required to complete an additional 15 hours of coursework in the chosen concentration and to sit for a written comprehensive examination in their final semester.

For specific course requirements, prospective students should consult the department chair for further details.

**Good Standing**

In addition to the requirements listed in the Graduate College’s standards for Good Standing, a student pursuing a degree in Dietetics will:

- Maintain a GPA of 3.0 or higher and receive a score of satisfactory or better on all preceptor evaluations, when applicable.
Dietetic Internship Certificate

A post-baccalaureate certificate program to qualify to take the registration exam to become a Registered Dietitian (RD) is available. Students who have an undergraduate major in dietetics may be selected to enroll in the Accredited Dietetic Internship Program to receive the supervised practice component required before taking the exam. Enrollment is by a selective, competitive process. The internship has been granted full accreditation by the Accreditation Council for Education in Nutrition and Dietetics of the Academy of Nutrition and Dietetics, 120 South Riverside Plaza, Suite 2000, Chicago, IL 60606-6995, telephone 312-899-4876.

Detailed internship information is available at www.marshall.edu/dietetics.

HEALTH INFORMATICS, M.S.

Program Mission

The mission of the Master of Science in Health Informatics (MSHI) program is to provide students with high quality education and training that will make them valuable employees in today’s data- and information-driven health care enterprises.

The relevance of this mission is reflected in the fact that health informatics professionals are in great demand. According to the U.S. Bureau of Labor Statistics, 10 of the 20 fastest growing occupations in the country are concentrated in health care services, making it an ideal career field for people who are looking for a growth opportunity and enjoy helping people (www.bls.gov)

With the health care environment enjoying such growth, this has a direct impact on the demand for health informatics professionals in the United States; this area is expected to see an 18 percent increase in the number of jobs available through 2016. With the 2010 enactment of the Affordable Care Act (ACA) and the Federal Government mandate that every U.S. citizen have an electronic health record (EHR) by 2015, together with the 2009 American Recovery and Reinvestment Act (ARRA) via the associated Health Information Technology Economic and Clinical Health (HITECH) Act, and the requirement by the federal government that each state develop a Health Information Exchange in order to become part of a vast electronic national health information infrastructure, the health informatics job growth rate will undoubtedly only continue to increase.

Accreditation

The Master of Science in Health Informatics is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM) Currently, it is one of first three nationally accredited programs in the United States. It is also the only accredited, graduate-level program in health informatics in the state of West Virginia.

Other Recognition

The Master’s in Health Informatics at Marshall University is ranked #1 on the “Top 25 Master’s in Healthcare Informatics Degrees Ranked by Affordability 2014.” In order to be eligible for the ranking, a health informatics program must meet two of three standards of high overall program quality. For more information, see http://mba-healthcare-management.com/best/masters-healthcare-informatics.

Program Description

Health Informatics is a cutting-edge, multidisciplinary profession that utilizes information technologies, informatics and information systems and integrates them into the health care arena; it is the science that defines how health information is technically captured, transmitted and utilized, consisting of 3 core areas:

- **Information Systems** – focuses on such issues as information systems analysis, design, implementation, management and leadership;
- **Informatics** – focuses on the study of structure, function and transfer of information, socio-technical aspects of health computing, and human-computer interaction;
- **Information Technology** – focuses on computer networks, database and systems administration, security and programming

The MSHI program is a highly integrated academic initiative comprising three colleges:

- College of Health Professions
- College of Business
- College of Information Technology and Engineering

The combination of skills and knowledge acquired through coursework in these three colleges, together with student internships in the health informatics field at the academic, government or industry levels, provides students with the high quality multidisciplinary education and real-world training that will result in valuable employees who are well prepared for the multifaceted demands and complexities in today’s data- and information-driven health care enterprises.
The program requires at least 4 semesters of coursework, including an educationally directed practicum (Health Informatics Internship) experience. The total number of credits includes at least 39 post-baccalaureate hours of study. Because this graduate degree focuses both on didactic and clinical applications, the program is a combination of classroom and clinical application credits. Graduate-level credits will be provided for the supervised practicum.

For more information regarding the Master of Science in Health Informatics program at Marshall University, please visit the health informatics website at www.marshall.edu/cohp/index.php/departments/health-informatics/programs.

Admission Requirements

Applicants should follow the admissions process described in the Graduate Catalog, or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission. (Submit all materials to the Graduate Admissions Office.)

- Students must have an undergraduate Grade Point Average (GPA) of 3.0 or higher on a 4.0 scale from their undergraduate degree granting institution
- Students must have GRE scores from GRE tests taken within the past five years.

Conditional Admission

If an applicant meets the minimum GPA requirements, but has not taken the GRE within the last 5 years, he or she can be conditionally admitted and enroll for one term, with the requirement that the GRE will be taken during the first semester following admission.

Provisional Admission

The Health Informatics program may admit applicants provisionally, on a limited basis at the discretion of the program director. Example: If a student does not meet the GPA admission requirement, but believes he or she had the necessary qualifications to succeed in the Health Informatics program, he or she may still be accepted at the discretion of the program director.

Program Requirements: 39 hrs.

NOTE: A students may be advised to take additional foundational informatics courses, such as medical terminology, databases, biostatistics, etc., if the student has no prior experience in those areas.

Students must take courses from 3 colleges:

College of Health Professions Courses .................. 15-19 hrs.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP 605</td>
<td>The Role of EHR and PHR.</td>
</tr>
<tr>
<td>HP 615</td>
<td>Health Quality and Safety</td>
</tr>
<tr>
<td>HP 650</td>
<td>Health Informatics Practicum</td>
</tr>
<tr>
<td>HP 620</td>
<td>Legal and Regulatory Environment</td>
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<td></td>
<td>for Health Care and Informatics</td>
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<tr>
<td>HP 630</td>
<td>Research Methods and Data Analytics</td>
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<tr>
<td></td>
<td>for Health Informatics</td>
</tr>
<tr>
<td>HP 685-688</td>
<td>Independent Study (1-4 hrs.)</td>
</tr>
</tbody>
</table>

College of Business Courses .......................... 12 hrs.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>MIS 678</td>
<td>Management Information Systems</td>
</tr>
<tr>
<td>HCA 600</td>
<td>The Health Care System</td>
</tr>
<tr>
<td>HCA 656</td>
<td>Management of Health Care Technology and Information Systems</td>
</tr>
<tr>
<td>MIS 680</td>
<td>Health Care Communications Technology and Telematics.</td>
</tr>
</tbody>
</table>

College of Information Technology and Engineering Courses .......... 12 hrs.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>IS 623</td>
<td>Database Management</td>
</tr>
<tr>
<td>EM 660</td>
<td>Project Management</td>
</tr>
<tr>
<td>IS 665</td>
<td>Health Informatics or elective</td>
</tr>
<tr>
<td>TM 664</td>
<td>Health Informatics</td>
</tr>
</tbody>
</table>

NOTE: A students may be advised to take additional foundational informatics courses, such as medical terminology, databases, biostatistics, etc., if the student has no prior experience in those areas.
Health Informatics Practicum

MSHI students will be required to complete the Health Informatics Practicum (HP 650), which includes successfully completing at least 400 hours in an educationally directed Health Informatics internship at one of several Health Informatics job sites which have been approved by the MSHI program director. The student internships consist of job placements within the Health Informatics field at academic, government or healthcare industry levels.

Besides successful completion of the required health informatics courses at MU, graduation from the MSHI program will be contingent upon successfully completing the HP 650 Practicum. For more details about the practicum, see the MSHI Practicum Web page.

KINESIOLOGY

Athletic Training (Entry-Level), M.S.
Athletic Training, M.S.
Biomechanics, M.S.
Exercise Science, M.S.
Sport Administration, M.S.

Areas of Emphasis

- Recreation and Physical Activity
- Sport Management

Minor in Sport Studies

The School of Kinesiology offers graduate degrees in Athletic Training (M.S.), Biomechanics (M.S.), Exercise Science (M.S.) and Sport Administration (M.S.) The Sport Administration degree program offers two areas of emphasis: Sport Management; and Recreation and Physical Activity.

All degree programs require from 32 to 39 hours and successful completion of an oral comprehensive examination or thesis defense. Thesis and non-thesis options are available in the Exercise Science and Sport Administration programs.

Admission requirements are different for the degree programs. A personal interview may be required. Provisional admission to a program is possible, and will be considered on an individual basis. (See definition of Provisional Admission in this catalog) All students applying to the Exercise Science, M.S. program must have successfully completed an undergraduate course in either exercise physiology or human physiology. Applicants lacking these courses may be provisionally admitted and must complete required undergraduate courses within the first 12 hours of graduate coursework. Students are limited to twelve semester hours of transfer credit from other institutions, and limited to a maximum of nine semester hours taught at the 500 level.

Entry-Level Master of Science - Athletic Training (ELM-AT)

The Marshall University Athletic Training Program (ATP) is fully accredited by the CAATE (Commission on Accreditation of Athletic Training Education; www.caate.net). It is a rigorous academic program that includes coursework in athletic training, anatomy, physiology, exercise physiology, psychology, and other science-related courses. The multifaceted program blends classroom instruction with clinical rotations, where students obtain real life experience working hands-on with certified athletic trainers, physicians, physical therapists, and other allied health care professionals to provide patient care. The rigorous curriculum prepares students to take the national BOC board exam (Board of Certification Exam; www.bocatc.org) to practice as entry-level professionals. This program is NOT an Advanced Practice Master's degree available to students who are already eligible for BOC certification or currently certified by the BOC. A degree in Athletic Training and BOC certification offers a graduate opportunities to practice in a variety of clinical settings. These settings include, but are not limited to, high school, college and professional athletics; outpatient clinics; industrial rehabilitation sites; physician practices; the performing arts; safety settings, and higher education.

The ELM-AT is a 3-2 program, allowing current Marshall University students to apply after their 3rd year of undergraduate studies and to graduate two years later (5 years total) with both bachelor’s and master’s degrees. Additionally, students who hold a bachelor’s degree from either Marshall or another accredited institution can also apply and complete the Entry-Level Master of Science in Athletic Training Program. Both routes prepare students to take the national BOC board exam. Acceptance into the ELM-AT program is competitive and separate from acceptance to Marshall University.

Admission Criteria

Acceptance into the Entry-Level Master of Science in Athletic Training program is competitive and not guaranteed. Prospective students must meet the minimum criteria listed that follow to be considered for admission to the program:

(continued)
• Admission to Marshall University;
• An overall cumulative minimum GPA of 2.75;
• A letter grade of C or better on all prerequisite coursework
• Submit by February 15 all forms and supporting documentation to apply to the ELM-AT (NOTE: refer to the current edition of the Athletic Training Program Policies and Procedures Manual for information regarding the application and admission requirements)
• Directed observation clinical experience (NOTE: refer to the current edition of the Athletic Training Program Policies and Procedures Manual for details regarding the requirements for this DO clinical experience)
• Successful interview (Interviews are extended in March)
• Ability to meet the Technical Standards of Admission documented by a licensed physician

Prerequisites - Provisional Admission Criteria
Prospective students must have taken or be currently enrolled in the following courses when applying to the ELM-AT program. All students applying in their 3rd year from Marshall University must have all Core I, Core II, and a minimum of 90 credit hours completed by the end of the application semester, including the below prerequisite courses:
• Anatomy and physiology (6-8 cr.)
• Introduction to Athletic Training/Prevention and Care of Athletic Injuries (3 cr.)
• Exercise physiology (3-4 cr.)
• First Aid and CPR; must also hold current First Aid and CPR healthcare provider or professional rescuer certifications (1 -3 cr.)
• General psychology (3cr.)
• Kinesiology or biomechanics (3-4 cr.)
• Nutrition (3 cr.)
• Personal Health/Wellness (2-3 cr.)
• Statistical methods (3 cr.)
• Medical terminology (2-3 cr.)

Athletic Training Core

HS 512 Foundational Clinical Skills in Athletic Training (3 cr.)
HS 515 Athletic Training Clinical Experience I (1 cr.)
HS 523 Orthopedic Assessment of the Upper Extremity for Athletic Trainers (4 cr.)
HS 524 Orthopedic Assessment of the Lower Extremity for Athletic Trainers (4 cr.)
HS 525 Athletic Training Clinical Experience II (2 cr.)
HS 548 Therapeutic Interventions in Athletic Training I (4 cr.)
HS 549 Therapeutic Interventions in Athletic Training II (4 cr.)
HS 609 Organization and Administration in Athletic Training (3 cr.)
HS 630 Seminar in Athletic Training (3 cr.)
HS 634 Athletic Training Externship (3 cr.)
HS 639 Examination of General Medical Conditions ( 3 cr.)
HS 645 Athletic Training Clinical Experience III (2 cr.)
HS 655 Athletic Training Clinical Experience IV (2 cr.)
HS 679 Trends in Athletic Training (3 cr.)
HS 681 Graduate Project in Athletic Training (3 cr.)
HS 670 Research Methods (3 cr.)

Students choose two courses (6 hours) from the below list of courses:

HS 566 Biomechanical Analysis (3 cr.)
ESS 636 Structural Kinesiology (3 cr.)
ESS 642 Advanced Training and Conditioning (3 cr.)
HS/ESS Elective (3 cr. at 600 level)

Additional Requirements
• BOC Exam registration
• 3.0 overall GPA and no more than 6 hours of C and no grades below C may be applied toward a graduate degree
• Completion of all Athletic Training Clinical Experience courses with a letter grade of B or better
Advanced Practice Master of Science in Athletic Training

Program Description-

The advanced practice M.S. in Athletic Training degree is designed to meet the needs of certified athletic trainers practicing in the clinical, high school, middle school, college, professional, industrial, and independent athletic trainer settings. The program is designed to expand the student's existing knowledge and skills in order to prepare the student to work in the growing field of Athletic Training. Elective courses will be chosen from a list of courses determined by the student's academic advisor and based on the student's background, needs, and/or weaknesses.

Successful completion of a comprehensive oral exam or thesis defense is required for graduation. The oral comprehensive exam consists of questions based on the student’s coursework. Questions will be prepared by the student’s comprehensive examination committee. The oral comprehensive examination is given during the student’s final semester in the program. Students choosing the oral comprehensive exam route must form their committee and schedule the examination date after the third semester of their program. A master’s thesis defense presents the results of an original research project that has been designed and conducted by the student. Students choosing to write a master’s thesis must select their thesis advisor and form a thesis committee during the second semester of their program. The thesis topic and research plan must be developed with the guidance of the thesis advisor and committee. A formal, open thesis proposal meeting must be held during the third semester of the student’s program. The open defense of the master’s thesis must occur at least one month prior to the close of the student's final semester.

The course of study for the advanced practice M.S. in Athletic Training degree is a two-year program with a 36 credit hour requirement. Admission to the program requires a 2.75 GPA, BOC eligible or BOC Certified, submission of GRE scores, and three letters of reference. BOC (Board of Certification) eligibility can be found at www.bocatc.org).

Admission Requirements

Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission.

In addition (submit all materials directly to Graduate Admissions office):

• an undergraduate Grade Point Average (GPA) of 2.75 or higher on a 4.0 scale for all previously completed undergraduate university work;
• an appropriate undergraduate/graduate background;
• certified by Board of Certification or eligible for certification;
• Graduate Record Exam scores;
• three letters of reference.

Program Requirements

M.S. in Athletic Training .......................................................................................36 Hours

Statistics.....................................................................................................................3 hrs.
EDF 517 Statistical Methods or equivalent
Research .....................................................................................................................3 hrs.
ESS 670 Research in Kinesiology

Required ....................................................................................................................18 hrs.
HS 625 Evidence-Based Practice in Therapeutic Electrophysical Agents
HS 630 Seminar in Athletic Training
HS 640 Health Evaluation for the Athletic Trainer
HS 646 Athletic Training I
HS 647 Athletic Training II
ESS 642 Devising and Implementing Training and Conditioning Programs

Electives.................................................................................................................... 6 hrs.
Choose from:

HS 548 Therapeutic Modalities
HS 623 Medical Aspects in Sports
ESS 578 Exercise Metabolism
ESS 601 Advanced Exercise Testing
ESS 621 Exercise Physiology I
Biomechanics

Program Description

Biomechanics is the study of forces and their effects on living systems. Biomechanics provides advanced knowledge in biomechanics particularly related to performance enhancement and injury prevention. Students focus their academic course work on developing the ability to understand and apply the principles of biomechanics when serving as a movement analyst in competitive and recreational sport situations, as well as in the workplace.

Admission Requirements

Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission.

Prospective students wishing to enter Biomechanics at MU must meet all MU admission criteria for the graduate level and be fully admitted to the MU graduate program. In addition to the MU graduate college admission criteria, all students must apply to the College of Health Professions Biomechanics program. Completion of the undergraduate degree at MU does not guarantee admission to the M.S. program; however, preference will be given to Marshall alumni if all things are equal. Additional admission requirements exist for the M.S. in Biomechanics program (see below).

Students may enter the program in three ways: 1) at the completion of a bachelor’s degree, 2) transfer from another accredited university or school of higher learning, or, 3) after the junior year of a B.S. degree program with permission of the dean of the College of Health Professions (MU students only). Criteria for admission will match the MU standards for admission to graduate programs. Specifically, a student who desires admission as a degree-seeking graduate student must have an overall undergraduate Grade Point Average (GPA) of at least 2.75 on a 4.0 scale and must submit GRE scores and three letters of reference. To continue in the M.S. in Biomechanics program, students are required to maintain a 3.0 GPA in all coursework.

Program Requirements

The M.S in Biomechanics will consist of at least 36 post-baccalaureate credit hours that will be taken in a prescribed sequence to be developed by the student’s graduate committee advisor. Students without a background in biomechanics will be advised to take additional foundation biomechanical courses. The Master of Science program consists of the following coursework:

Required

- EDF 517 Statistical Methods
- ESS 670 Research in Physical Education
- HS 610 Advanced Biomechanics
- HS 615 Mechanical Analysis
- HS 635 Research Methods for Biomechanics
- HS 650 Gait
- HS 681 Thesis or HS 660, Internship

Electives (12 hours)

These are only suggested courses. Some course may require permission from the instructor prior to enrollment. All prerequisites must be met.

- ESS 578 Exercise Metabolism
- ESS 601 Advanced Exercise Testing
- ESS 621 Exercise Physiology I
- ESS 636 Structural Kinesiology
- ESS 642 Devising and Implementing Training and Conditioning Programs
### Degree Programs and Requirements

**Marshall University**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>ESS 651</td>
<td>Mechanical Analysis of Motor Skills</td>
</tr>
<tr>
<td>ESS 670</td>
<td>Research in Kinesiology</td>
</tr>
<tr>
<td>HP 605</td>
<td>Medical Vocabularies and Classification Systems</td>
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<tr>
<td>ESS 644</td>
<td>Cardiovascular Exercise Physiology</td>
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<tr>
<td>ESS 645</td>
<td>Respiratory Exercise Physiology</td>
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<tr>
<td>ACB 620</td>
<td>Gross Anatomy/Embryology</td>
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<tr>
<td>BMS 600</td>
<td>Foundations of Biomedical Science</td>
</tr>
<tr>
<td>BMS 628</td>
<td>Neuroscience I</td>
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<tr>
<td>BMS 629</td>
<td>Neuroscience II</td>
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<td>BMS 630</td>
<td>Neuroscience</td>
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<td>BMS 632</td>
<td>Neuroscience Research Techniques</td>
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<td>DTS 670</td>
<td>Advanced Medical Nutrition Therapy I</td>
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<td>EDF 616</td>
<td>Advanced Studies in Human Development</td>
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<td>EDF 617</td>
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<td>MTH 518</td>
<td>Biostatistics</td>
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<td>MPNA 724</td>
<td>Evidence-Based Research Methods I</td>
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<td>MPNA 725</td>
<td>Evidence-Based Research Methods II</td>
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<td>MPNA 726</td>
<td>Statistical Methods for Research</td>
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<tr>
<td>SFT 560</td>
<td>Fundamentals of Ergonomics</td>
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<tr>
<td>SFT 610</td>
<td>Concepts in Occupational Safety and Health</td>
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<tr>
<td>SFT 630</td>
<td>Research in Occupational Safety and Health</td>
</tr>
<tr>
<td>SFT 645</td>
<td>Safety Engineering and Equipment Design</td>
</tr>
<tr>
<td>SFT 660</td>
<td>Human Factors in Accident Prevention</td>
</tr>
</tbody>
</table>

**Thesis or Comprehensive Examination**

The thesis project is a collaborative academic effort between the student and the faculty of the School of Kinesiology. The student can receive up to 6 credit hours toward his or her 36 credit hour degree requirement. The thesis project and oral defense of the student's thesis project must occur prior to the completion of the student's final semester in the program. The thesis project needs to reflect an effort that is at least equivalent to the 6 credit hours and is to be completed over 2 or more semesters.

As an alternative to a thesis project, a student can choose to take a written/oral comprehensive examination. The comprehensive examination will consist of responses to written and verbal questions that are prepared by select faculty members of the School of Kinesiology.

**Exercise Science**

**Program Description**

The M.S. in Exercise Science prepares students for allied health careers in the clinical, commercial, corporate, community, university, and medical settings. Options include an emphasis on leadership roles and skills that permit one to work with individuals on a client/patient continuum extending from the elite athlete to those with chronic diseases, to the recreational athlete and those simply wishing to stay healthy by living sensibly. Options include careers in cardiopulmonary rehabilitation and diabetes management programs as well as athletic training, exercise physiology, and other health-related fields such as physical therapy, pharmaceutical and pacemaker sales. This program also prepares students to enter pre-professional schools for physician assistants, and physicians. Graduates from the M.S. in Exercise Science are also prepared to pursue studies for advanced degree in related doctoral programs.

The course of study for the M.S. in Exercise Science degree is a two-year program with a 39-hour requirement.

**Admission Requirements**

Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at [www.marshall.edu/graduate/admissions/how-to-apply-for-admission](http://www.marshall.edu/graduate/admissions/how-to-apply-for-admission).

In addition (submit all materials directly to Graduate Admissions office):
- an undergraduate Grade Point Average (GPA) of 2.75 or higher on a 4.0 scale for all previously completed undergraduate university work;
- an appropriate undergraduate/graduate background;
- successful completion of an undergraduate course in either exercise physiology or human physiology;
- Graduate Record Exam scores or MCAT scores;
- three letters of reference.
### Program Requirements

#### Core
- ESS 578 Exercise Metabolism
- ESS 601 Advanced Exercise Testing
- ESS 621 Exercise Physiology 1
- ESS 623 Advanced Exercise Physiology 2
- ESS 642 Devising and Implementing Training and Conditioning Programs
- ESS 683 Cardiovascular Assessment

#### Research
- ESS 670 Research in Kinesiology

#### Statistics
- EDF 517 Statistical Methods or equivalent

#### Restricted Electives (Must be approved by advisor)
Choose one (6 hours)
- ESS 660 Clinical Internship OR
- ESS 681 Thesis

### Sport Administration

#### Program Description
The Sport Administration M.S. degree is a program in the School of Kinesiology with areas of emphasis in Sport Management or Recreation and Physical Activity. Graduates of this program are prepared to work in a variety of settings.

#### Admission Requirements
Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at [www.marshall.edu/graduate/admissions/how-to-apply-for-admission](http://www.marshall.edu/graduate/admissions/how-to-apply-for-admission).

For **Full Admission** (submit all materials directly to Graduate Admissions office):
- an undergraduate Grade Point Average (GPA) of 3.0 or higher on a 4.0 scale for all previously completed undergraduate university work;
- at least a 1000 combined score on verbal and quantitative reasoning and 4.5 on analytical writing of the GRE (or equivalent scores on the revised General Test);
- a strong background in sport participation and/or sport administration.

A limited number of students may be admitted provisionally (see definition of Provisional Admission in this catalog):
- an undergraduate Grade Point Average (GPA) of 2.75 or higher on a 4.0 scale for all previously completed undergraduate university work;
- at least 800 combined score on verbal and quantitative reasoning and 4.0 on analytical writing of the GRE or at least 500 and 4.0 on analytical writing of the GMAT;
- meeting two of the three Full Admission requirements above and a strong background in sport participation and/or sport administration.

#### Program Requirements
If the thesis option is selected, the student must complete 32 hours, of which six hours are for the thesis. The non-thesis option requires the completion of 36 hours. However, both options require the successful passing of an oral comprehensive examination or thesis defense. Programs illustrated below are the non-thesis option.

#### Sport Management Area of Emphasis
- ESS 516 Planning and Developing HPER and Athletic Facilities
- ESS 600 Advanced Readings in Sports Ethics
- ESS 615 Legal Concern in PE and Athletics
- ESS 626 History and Philosophy of Physical Education and Sport OR
- ESS 643 Sport in the Social Process
- ESS 652 Organizational Behavior of Sport and Leisure Industry
- ESS 675 Marketing Management of Sport Industry

*(continued)*
Research

ESS 670  Research in Kinesiology

Statistics

EDF 517  Statistical Methods OR
MGT 500  Analytical Methods and Techniques OR
MGT 601  Quantitative Methods for Business OR
PSY 517  Intermediate Behavioral Statistics OR
Equivalent

Internship

ESS 660  Clinical Internship

Kinesiology Restricted Electives
Selected courses with the approval of advisor, 3 hrs.

External Electives
Graduate School of Management courses
or selected courses with the approval of advisor, 6 hrs.

Recreation & Physical Activity Area of Emphasis .....................................................36 Hours

ESS 615  Legal Concern in PE and Athletics
ESS 652  Organizational Behavior of Sport and Leisure Industry
ESS 675  Marketing Management of Sport Industry

Research

ESS 670  Research in Kinesiology

Statistics

EDF 517  Statistical Methods OR
MGT 500  Analytical Methods and Techniques OR
MGT 601  Quantitative Methods for Business OR
PSY 517  Intermediate Behavioral Statistics OR
Equivalent

Kinesiology Electives
Selected courses with the approval of advisor, 15 hrs.

External Electives
Selected courses with the approval of advisor, 6 hrs.

Minor in Sport Studies
Interested students should contact the director of the Sport Administration program.

NURSING, M.S.N.

Areas of Emphasis
Family Nurse Practitioner
Nursing Administration
Nursing Education
Nurse-Midwifery (collaborative program with Shenandoah University)
Psychiatric Mental Health Nurse Practitioner
(collaborative program with Shenandoah University)

Graduate Certificates
Family Nurse Practitioner (post master’s)
Nursing Administration (post master’s)
Nursing Education (post master’s)
Program Description
The purpose of this program is to prepare graduates for advanced practice nursing, as family nurse practitioners, nurse educators, or nurse managers. In addition, in collaboration with Shenandoah University, the program offers students the opportunity to become nurse midwives or psychiatric mental health nurse practitioners.

Coursework in the Master of Science in Nursing program incorporates the classroom, laboratory, and clinical modes of instruction. All nursing students have experiences with rural and/or underserved populations as part of the state initiatives for primary health care. The Master of Science in Nursing program requires the completion of a minimum of 41 credit hours for the family nurse practitioner (MSN-FNP) area of emphasis, 36 credit hours for the nursing administration (MSN-NA) and nursing education (MSN-NE) areas of emphasis, 44 credit hours for the nurse-midwifery (MSN-NM) area of emphasis, and 46 credits for psychiatric mental health nurse (MSN-PMHNP) practitioners.

Certifications
Upon successful completion of the MSN-FNP program, graduates are eligible to take the American Academy of Nurse Practitioners (AANP) Certification Examination for Adult and Family Nurse Practitioners and/or the American Nurses' Credentialing Center (ANCC) Certification for Family Nurse Practitioners. Graduates of the MSN-NA program are eligible to take the ANCC Certification Examination for Nursing Administration or Nursing Administration Advanced, depending on their experience and stage of professional development. Graduates of the Nursing Education (MSN-NE) program are eligible to take the National League for Nursing Certified Nurse Educator Examination. Nurse-Midwifery (MSN-NM) graduates are eligible to take the American Midwife Certification Board Exam. MSN-PMHNP graduates are eligible to take the ANCC Family Psychiatric Mental Health Nurse Practitioner Certification Exam.

The MSN program purpose is achieved through three program components.

1. The core component (12 credits) focuses on knowledge and skills related to nursing theory, advanced nursing research, leadership, and health care issues.
2. The area of emphasis component (18 to 36 credits) allows the student to specialize in a particular area. The family nurse practitioner area of emphasis (29 credits) provides students with the opportunity to develop competency as a family nurse practitioner. The nursing administration area of emphasis (18 credits) provides students with the opportunity to acquire knowledge and skills necessary to administer/manage rural/underserved primary care agencies, home health care, and other health care agencies or units. The nursing education area of emphasis (21 credits) gives the student the opportunity to gain the knowledge and skills necessary to be a nurse educator. The nurse-midwifery area of emphasis (32 credits) provides knowledge and skills to practice as a nurse-midwife. The psychiatric mental health nurse practitioner provides the student the opportunity to develop competency as psychiatric mental health nurse practitioner (36 credits).
3. The elective component (6 credits) allows students to choose one of four options: 1) thesis, 2) role development courses in teaching, or 3) elective courses related to the student’s area of interest, or 4) organizational dynamics or financial strategies in administration.

The MSN program must be completed in a period not to exceed 7 calendar years from the date of first class enrollment.

Accreditation
The Master of Science in Nursing program is accredited by the Accreditation Commission for Education in Nursing, Inc., 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326; phone, 404-975-5000; fax, 404-975-5020; Web, www.acenursing.org. In addition, the ACEN is a source for information regarding tuition, fees, and length of the program.

Admission Requirements
Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website: www.marshall.edu/graduate/admissions/how-to-apply-for-admission.

Students must also submit a separate application to the MSN program at www.marshall.edu/cohp.

Deadline
Completed application by October 1 and April 1 of each year.

In addition:
The nursing program is available to a limited number of qualified applicants. Admission is determined on a competitive basis. To be eligible for regular admission to the program, applicants must meet the following admission requirements:

1. Baccalaureate degree with a major in nursing from an ACEN- or CCNE-accredited program, if nursing degree is from a school of nursing in the United States. Baccalaureate degree with a major in nursing for students graduating
from an international school of nursing (accredited program requirement is waived for students graduating from an international school of nursing).

2. Baccalaureate degree with a major in nursing and a master’s degree in any field.
3. Undergraduate course credit for 3 semester hours of basic statistics with a grade of “C” or better.
4. Undergraduate course credit for 3 semester hours of basic research with a grade of “C” or better.
5. Evidence of a current unencumbered license as a registered nurse in a U.S. jurisdiction. Verification form is included in the MSN application package.
6. Scholastic achievement as evidenced by an overall undergraduate/graduate Grade Point Average of 3.0 or higher.
7. It is strongly recommended that all MSN students have two years of full-time nursing practice prior to application to the program. Those who do not meet this criterion will be considered on an individual basis.
8. Midwifery and psychiatric mental health applicants must have an interview with Shenandoah University faculty prior to the application deadline.

An applicant with a master’s in nursing is eligible to be admitted as a post-master’s student depending on space availability.

Program Requirements

The student and advisor will develop a Plan of Study or blueprint for graduation requirements. The Plan of Study must be on file in the Graduate College office before the student registers for the 12th semester hour.

Course Requirements: Family Nurse Practitioner

Core Component Courses (12 credits)

- NUR 602 Theoretical Foundations in Nursing
- NUR 604 Leadership in Nursing
- NUR 606 Advanced Nursing Research
- NUR 608 Issues in Health Care

Area of Emphasis Component Courses (29 credits)

- NUR 620 Advanced Pathophysiology I
- NUR 621 Advanced Pathophysiology II
- NUR 622 Advanced Physical Assessment
- NUR 624 Advanced Family Nursing Practice I
- NUR 626 Advanced Family Nursing Practice II
- NUR 663 Advanced Pharmacology I
- NUR 664 Advanced Pharmacology II
- NUR 695 Internship: Advanced Family Nursing

TOTAL CREDITS .........................................................................................................41

Course Requirements: Nursing Administration

Core Component Courses (12 credits)

- NUR 602 Theoretical Foundations in Nursing
- NUR 604 Leadership in Nursing
- NUR 606 Advanced Nursing Research
- NUR 608 Issues in Health Care

Area of Emphasis Component Courses (18 credits)

- NUR 642 Organizational Dynamics in Nursing
- NUR 644 Financial Strategies in Nursing Administration
- NUR 646 Nursing Management in Health Care Settings I
- NUR 648 Nursing Management in Health Care Settings II

Elective Component Courses (Select 6 credits from the following offerings)

- NUR 681 Thesis ............................................................................................................................
- NUR 616 Curriculum Development in Nursing

138 Degree Programs and Requirements Marshall University
NUR 618  Teaching in Nursing
Other Electives

TOTAL CREDITS ........................................................................................................36

Course Requirements: Nursing Education

Core Component Courses (12 credits)
NUR 602  Theoretical Foundations in Nursing
NUR 604  Leadership in Nursing
NUR 606  Advanced Nursing Research
NUR 608  Issues in Health Care

Area of Concentration Component Courses (18 credits)
NUR 616  Curriculum Development in Nursing
NUR 618  Teaching in Nursing
NUR 619  Practicum: Teaching in Nursing
EDF 636  Classroom Assessment
CIEC 600  Computing and Instructional Design
EDF 619  Educational Psychology

Elective Course Options (3 credits from the following offerings)
NUR 681  Thesis
OR Other Electives

TOTAL CREDITS ........................................................................................................36

Course Requirements: Nurse-Midwifery (offered in cooperation with Shenandoah University)

Core and Related Courses at Marshall University (25 credits)
NUR 602  Theoretical Foundations in Nursing
NUR 604  Leadership in Nursing
NUR 606  Advanced Nursing Research
NUR 608  Issues in Health Care
NUR 620  Advanced Pathophysiology I
NUR 621  Advanced Pathophysiology II
NUR 622  Advanced Physical Assessment
NUR 663  Advanced Pharmacology I
NUR 664  Advanced Pharmacology II

Once the student has successfully completed his or her 25 credit hours at Marshall University, the student will transfer to Shenandoah University to obtain an additional 19 credit hours of classroom and clinical midwifery courses. The student will spend one week at the beginning of each semester at Shenandoah and then return to rural WV to be placed with a preceptor to obtain the clinical portion of the program. The student will continue to receive didactic material from Shenandoah midwifery faculty.

Advanced Practice Midwifery Courses at Shenandoah University (19 credits)  

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>NM 610</td>
<td>Primary Care of Women</td>
</tr>
<tr>
<td>NM 620</td>
<td>Comprehensive Antepartal Care</td>
</tr>
<tr>
<td>NM 630</td>
<td>Midwifery Practicum</td>
</tr>
<tr>
<td>NM 640</td>
<td>Comprehensive Perinatal Care</td>
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<tr>
<td>NM 650</td>
<td>Integrated Midwifery Practicum</td>
</tr>
<tr>
<td>NM 660</td>
<td>Advanced Nurse-Midwifery Role Development</td>
</tr>
</tbody>
</table>

TOTAL CREDITS ........................................................................................................44

Upon successful completion of the 19 credit hours at Shenandoah, the student transfers these 19 hours to Marshall University. The student will receive an M.S.N. from Marshall University and a certificate in Nurse-Midwifery from Shenandoah University. The student is then eligible to take the Certified Nurse Midwifery Exam from the American Midwives Certification.
Course Requirements: Psychiatric Mental Health Nurse Practitioner (offered in cooperation with Shenandoah University)

The curriculum will consist of 48 credit hours: 25 of these hours will be taken in Marshall University’s School of Nursing MSN program; and 23 credit hours will be taken from Shenandoah University’s Division of Nursing.

Core and Related Courses at Marshall University (25 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
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<tr>
<td>NUR 602</td>
<td>Theoretical Foundations in Nursing</td>
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<td>NUR 604</td>
<td>Leadership in Nursing</td>
</tr>
<tr>
<td>NUR 606</td>
<td>Advanced Nursing Research</td>
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<td>NUR 608</td>
<td>Issues in Health Care</td>
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<tr>
<td>NUR 620</td>
<td>Advanced Pathophysiology I</td>
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<tr>
<td>NUR 621</td>
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<td>Advanced Physical Assessment</td>
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<tr>
<td>NUR 663</td>
<td>Advanced Pharmacology I</td>
</tr>
<tr>
<td>NUR 664</td>
<td>Advanced Pharmacology II</td>
</tr>
</tbody>
</table>

Students will meet all Marshall University School of Nursing and Shenandoah University admissions requirements, including an interview by SU psychiatric mental health nurse faculty. Students will take the above courses at Marshall University and the PMHNP courses at Shenandoah University.

SU will offer 23 hours of courses, all offered through SU psychiatric mental health nurse faculty. Students enrolled in the PMHNP will attend PMHNP classes at Shenandoah University after attending the core graduate courses at Marshall University.

The PMHNP curriculum allows students to attend classes during concentrated times (2 weekends a semester). The remaining weeks of the semester, students are placed with clinical preceptors to apply what they have learned in the didactic portion of the course(s). Students then return to campus for examinations, or arrange for a proctored examination. Twenty three credit hours will be transferred from SU to Marshall University.

Psychiatric Mental Health Nurse Practitioner courses at Shenandoah University (23 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>NP 599</td>
<td>Pharmacology and Therapeutics Independent Study</td>
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<tr>
<td>PMH 645</td>
<td>Individual Therapy Theories</td>
</tr>
<tr>
<td>PMH 650</td>
<td>Individual Therapy Practicum</td>
</tr>
<tr>
<td>PMH 665</td>
<td>Group, Family, Community Theory</td>
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<tr>
<td>PMH 670</td>
<td>Group, Family, Community Practicum</td>
</tr>
<tr>
<td>PMH 685</td>
<td>Geriatric PMH Nursing OR Child and Adolescent Nursing</td>
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<tr>
<td>PMH 695</td>
<td>Advanced NP Practicum in PMH Nursing</td>
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<tr>
<td>HP 576</td>
<td>Substance and Relationship Abuse</td>
</tr>
<tr>
<td>NP 690</td>
<td>Advanced NP Role Development</td>
</tr>
</tbody>
</table>

TOTAL CREDITS (including core and related courses)...............................................48

Upon successful completion of the 23 credit hours at Shenandoah, the student transfers these 23 hours to Marshall University. The student will receive an M.S.N. from Marshall University and a certificate from Shenandoah University.

Admission Requirements for Post Master’s Certificates

Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission.

Students must also submit a separate application to the MSN program at www.marshall.edu/cohp.

In addition: The Post Master’s Certificate program is available to a limited number of qualified applicants. Admission is determined on a competitive basis. Applicants must meet the following minimum requirements.

1. Master of Science in Nursing from an ACEN- or CCNE-accredited program. Applicants who are graduates of programs outside the ACEN or CCNE jurisdictions will be evaluated on an individual basis.
2. Evidence of a current unencumbered license as a registered nurse in a U.S. jurisdiction. Verification form is included in the MSN application package.
POST MASTER’S CERTIFICATE IN NURSING ADMINISTRATION PROGRAM

The purpose of the Post Master’s Certificate in Nursing Administration program is to prepare nurses who have Master of Science in Nursing degrees as nurse administrators. The graduates of this program are eligible to take the American Nurses’ Credentialing Center Certification Examination for Nursing Administration or Nursing Administration Advanced.

Course Requirements: Post Master’s Certificate in Nursing Administration Program

- NUR 642 Organizational Dynamics
- NUR 644 Financial Strategies
- NUR 646 Nursing Management in Healthcare Settings I
- NUR 648 Nursing Management in Healthcare Settings II

TOTAL CREDITS .........................................................................................................18

Additional courses may be taken after consultation with the graduate faculty advisor for nursing administration.

POST MASTER’S CERTIFICATE IN NURSING EDUCATION PROGRAM

The purpose of the Post Master’s Certificate in Nursing Education program is to prepare nurses who have Master of Science in Nursing degrees as nurse educators. Graduates of this program are eligible to take the National League for Nursing Certified Nurse Educator Examination.

Course Requirements: Post Master’s Certificate in Nursing Education Program

- NUR 616 Curriculum Development in Nursing
- NUR 618 Teaching in Nursing
- NUR 619 Practicum: Teaching in Nursing
- EDF 636 Classroom Assessment
- CIEC 600 Computing and Instructional Design
- EDF 619 Educational Psychology

TOTAL CREDITS .........................................................................................................21

Additional courses may be taken after consultation with the graduate faculty advisor for nursing education.

POST MASTER’S CERTIFICATE IN FAMILY NURSE PRACTITIONER PROGRAM

The purpose of the Post Master’s Certificate in Family Nurse Practitioner program is to prepare nurses, who have a Master of Science in Nursing degree, as family nurse practitioners. The graduates of this program are eligible to take the American Nurses’ Credentialing Center Certification Examination for Family Nurse Practitioners and/or American Academy of Nurse Practitioners Certification Examination for Adult and Family Nurse Practitioners.

Course Requirements: Post Master’s Certificate in Family Nurse Practitioner Program

- NUR 620 Advanced Pathophysiology I
- NUR 621 Advanced Pathophysiology II
- NUR 622 Advanced Physical Assessment
- NUR 624 Advanced Family Nursing Practice I
- NUR 626 Advanced Family Nursing Practice II
- NUR 663 Advanced Pharmacology I
- NUR 664 Advanced Pharmacology II
- NUR 695 Internship: Advanced Family Nursing

TOTAL CREDITS .........................................................................................................29

Additional courses may be taken after consultation with the graduate faculty advisor for family nurse practitioners.

POLICIES

Students in both the MSN and Post Master’s Certificate programs are governed by policies stated in the Marshall University Graduate College Catalog. Policies specific to the nursing programs are as follows:

MSN General Academic Policies

1. All graduate academic policies apply to all MSN and post master’s coursework. Students are required to review and download the current Graduate Catalog and MSN Handbook upon admission to the MSN program.

(continued)
2. The School of Nursing reserves the right to administratively withdraw any nursing student whose health, academic record, clinical performance, or behavior is judged unsatisfactory.

3. A student who makes less than a C in a clinical course may not progress to the next sequential clinical course. The student must repeat the course the next time offered or within one year. He or she must earn a B or higher on the second attempt. Failure to earn a B or higher on the second attempt will result in dismissal from the program.

4. Students may repeat only one required course in which they have earned less than a C. The course in which the student earned the C can only be repeated once.

5. A student who earns 6 credits of a C in nursing courses will be dismissed from the program.

6. No more than 6 hours of C may be applied toward the MSN degree or post master’s certificate.

7. If a student earns an F in any course, he or she will be dismissed from the program.

8. No grade below a C will be applied toward the MSN degree or post master’s certificate.

9. Students who do not follow the university procedure for withdrawal from a course will earn a grade of F for the course.

10. No more than twelve (12) credit hours may be accepted as transfer credit.

11. Students in the graduate program who fail to enroll for a semester without an approved leave of absence (LOA) are considered withdrawn from the program and are not eligible for future enrollment.

12. All students must have a 3.00 GP in their major to graduate and receive the MSN or post master’s certificate.

13. Students are required to be in professional attire for all clinical practicums and to wear a name pin. In addition, selected clinical agencies require a white lab coat.

14. Students are required to pass and submit a background check and drug screen through www.certifiedbackground.com. For additional information, contact the School of Nursing.

For additional policies, see the Graduate Nursing Student Handbook.

SCHOOL OF PHYSICAL THERAPY
Doctor of Physical Therapy (D.P.T.)

Program Description

The mission of the Marshall University School of Physical Therapy is to provide excellence in physical therapist education in order to prepare highly competent self-reflective physical therapists capable of treating culturally diverse populations of clients with varying health care needs;

To produce autonomous practitioners who are effective teachers, community partners and leaders who give back to their community, advocate for patients and the profession at all levels, and are integral members of a patient/client-centered interdisciplinary team;

And finally, to produce clinicians who practice evidence-based physical therapy, seek to preserve, discover, synthesize and disseminate knowledge, and establish personal development plans to sustain lifelong learning once practicing in the profession. It is students who graduate from the program will meet the following outcomes by demonstrating the ability to:

• Serve as autonomous primary care practitioners who are responsive to the entire scope of physical therapy practice and are advocates for patients, the community and the profession;
• Use principles of evidence-based practice and critical thinking to solve clinical problems;
• Become effective communicators with, and teachers of patients, families, peers, community and students;
• Participate in the design and management of physical therapy services.
The program is 3 years, (9 semesters, 115 credits) in length, and includes a capstone project and 35 weeks of full-time clinical internship experiences.

**Minimum Requirements for Admission**

1. Baccalaureate degree from a regionally or nationally accredited college/university completed prior to the starting date in the DPT program.

2. **Prerequisite Courses:** Must complete all prerequisite courses prior to the summer term for which you are applying. For example, if you are applying for the class that starts in May 2016, all of your prerequisite courses must be completed by Summer 2016.

<table>
<thead>
<tr>
<th>Science</th>
<th>Behavioral/Social Science</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology (&amp; lab)- 8 credits</td>
<td>Psychology- 6 credits</td>
<td>Composition/Writing- 6 credits</td>
</tr>
<tr>
<td>Chemistry (&amp; lab)- 8 credits</td>
<td>(preferably abnormal</td>
<td></td>
</tr>
<tr>
<td>Physics (&amp; lab)- 8 credits</td>
<td>&amp; developmental or life span)</td>
<td></td>
</tr>
<tr>
<td>Human Anatomy*- 3 credits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human Physiology*- 3 credits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics- 3 credits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statistics- 3 credits</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

   *Students must document 6 hours of anatomy and physiology regardless of how the courses are offered. Many universities offer a two semester integrated human anatomy and physiology course instead of three credits human anatomy and three credits human physiology.

   **Note:** All science prerequisite courses must be for science majors. Courses with a grade of C- or lower will not be accepted for prerequisites. Anatomy and physiology courses should preferably be completed with a grade of B or better. Note that students will be allowed to have one or two courses in progress at the time of interview (early January); however, outstanding course(s) must be completed with the appropriate minimal grade, and the bachelor’s degree earned, prior to commencing the DPT program in May of the year for which students are applying.

3. Clinical Observation Hours: Complete at least 60 observation hours in a PT clinic with observation hours in at least two different settings under the direct supervision of a licensed physical therapist by the time of application. A PT observation hours verification form is provided on the PTCAS website at www.ptcas.org.

4. Grade Point Averages and GRE scores:
   - A minimum 3.0 for overall Undergraduate GPA
   - A minimum 3.0 for the GPA for prerequisite sciences
   - A minimum 3.0 for the GPA for all prerequisites combined

5. Completion of the Graduate Record Examination (GRE) with submission of scores at the time that the application is submitted. Please contact GRE to determine testing dates and sites. (1-800-GRE-CALL; www.ets.org/gre)

6. Provide two references: One from a physical therapist and the other from either another physical therapist, or a faculty member or an employer. A reference request form is provided on the PTCAS website (www.ptcas.org).

7. **Provisional Admission:** A student who possesses a baccalaureate degree from an accepted, regionally accredited college/university and has submitted all other application materials, but still has 1-2 prerequisite courses in progress at the time of interview (early January) may be provisionally admitted. However, outstanding course(s) must be completed with the appropriate minimal grade prior to commencing the DPT program in May of the year for which the student is applying.

8. **Conditional Admission:** A student who does not already possess a baccalaureate degree from an accepted, regionally accredited institution, and/or has 1-2 prerequisite courses in progress at the time of interview (early January), but has submitted all other required application materials, may be conditionally admitted. However, the bachelor’s degree must be earned, and outstanding course(s) must be completed with the appropriate minimal grade prior to commencing the DPT program in May of the year for which the student is applying.

***International applicants will be required to submit an official TOEFL score in addition to the other requirements described for consideration. TOEFL/IBT score must be consistent with the standards established by the Foreign Credentialing Commission on Physical Therapy (FCCPT) as acceptable for physical therapists desiring to enter practice in the U.S. from a foreign country. The minimum scores to be considered for admission must be a Total Score of 89 with the minimum section requirement of “Speaking” of 26. International applicants will have to complete their credential evaluation a an approved agency to prove that their education is equivalent to the U.S. undergraduate education. Please visit www.marshall.edu/admissions/credential_eval_services.asp for more information and follow the instructions on the website of Marshall University Graduate College (www.marshall.edu/graduate/admissions/international-admission).
How to Apply

The School of Physical Therapy at Marshall University is participating in the Physical Therapist Centralized Application Service, known as PTCAS. Applicants applying to the entry-level physical therapist education program for the 2013 entering class and afterward will apply online using the PTCAS application. To learn more about the PTCAS application process, visit www.ptcas.org.

Accreditation

Marshall University is accredited as an institution of higher learning by the the Higher Learning Commission (HLC) of the North Central Association of Colleges and Schools (Phone: 800-621-7440 / 312-263-0456.Fax: 312-263-7462; info@hlcommission.org; 230 South LaSalle Street, Suite 7-500, Chicago, Illinois 60604-1413) The program has received approval from the Marshall Board of Governors to offer the DPT program, and program approval from the North Central Higher Learning Commission.

The Doctor of Physical Therapy Program at Marshall University is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), 1111 North Fairfax Street, Alexandria, VA 22314; phone: 703-706-3245; email: accreditation@apta.org; website: www.capteonline.org.

Criminal Background Check Information

Special Note Regarding Eligibility for Certification for Licensure, Criminal Background Clearance

Students who are offered admission to the Marshall University School of Physical Therapy are required to have a criminal background check. Complete instructions on obtaining and forwarding these documents will be provided to students who are offered admission, prior to matriculation. Clinical rotation sites that require a criminal background check may deny a student’s participation in the clinical rotation because of a felony or misdemeanor conviction or a record of child abuse. Clinical sites may also deny participation in clinical experience for other reasons, such as failure of a required drug test, or inability to produce an appropriate health clearance. As participation in clinical experiences, rotations or fieldwork is a required part of the curriculum and a requirement for graduation, denial of participation by a clinical site may result in delay of graduation or the inability to graduate from the program. Regardless of whether or not a student graduates from Marshall, individuals who have been convicted of a felony or misdemeanor may be denied certification or licensure as a health professional. Information regarding individual eligibility may be obtained from the appropriate credentialing bodies or state licensure board.

Curricular Plan of Study

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT 700 Gross Anatomy for Physical Therapy</td>
<td></td>
</tr>
<tr>
<td>PT 710 Introduction to Human Movement</td>
<td></td>
</tr>
<tr>
<td>PT 750 Foundation of Physical Therapy Practice</td>
<td></td>
</tr>
<tr>
<td>Total Summer I ................................................................. 10</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT 701 Neuroanatomy</td>
<td></td>
</tr>
<tr>
<td>PT 711 Human Movement I</td>
<td></td>
</tr>
<tr>
<td>PT 720 Advanced Clinical Physiology</td>
<td></td>
</tr>
<tr>
<td>PT 731 Clinical Skills I</td>
<td></td>
</tr>
<tr>
<td>PT 741 Medical Pathology in Physical Therapy I</td>
<td></td>
</tr>
<tr>
<td>PT 751 Professional Practice I</td>
<td></td>
</tr>
<tr>
<td>PT 771 Clinical Application Seminar &amp; Experiences (CASES) I ........................................ 19</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT 702 Neurosciences I</td>
<td></td>
</tr>
<tr>
<td>PT 703 Neurosciences II</td>
<td></td>
</tr>
<tr>
<td>PT 712 Human Movement II</td>
<td></td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
</tr>
<tr>
<td>------------</td>
<td>--------------------------------------------------------</td>
</tr>
<tr>
<td>PT 721</td>
<td>Appl Ex Phy &amp; Therapeutic Exercise</td>
</tr>
<tr>
<td>PT 732</td>
<td>Clinical Skills II</td>
</tr>
<tr>
<td>PT 742</td>
<td>Medical Pathology in Physical Therapy II</td>
</tr>
<tr>
<td>PT 761</td>
<td>Evidence Based Practice I</td>
</tr>
<tr>
<td>PT 772</td>
<td>Clinical Application Seminar</td>
</tr>
<tr>
<td></td>
<td>&amp; Experiences (CASES) II</td>
</tr>
<tr>
<td></td>
<td><strong>Total Spring I</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Year 2 Term 4 Summer II (10 weeks)</strong></td>
</tr>
<tr>
<td>PT 713</td>
<td>Human Movement III</td>
</tr>
<tr>
<td>PT 743</td>
<td>Medical Pathology in Physical Therapy III</td>
</tr>
<tr>
<td>PT 747</td>
<td>Pharmacology in Rehabilitation</td>
</tr>
<tr>
<td>PT 753</td>
<td>Professional Practice II</td>
</tr>
<tr>
<td>PT 763</td>
<td>Evidence Based Practice II</td>
</tr>
<tr>
<td>PT 773</td>
<td>Clinical Application Seminar</td>
</tr>
<tr>
<td></td>
<td>&amp; Experiences (CASES) III</td>
</tr>
<tr>
<td>PT 781</td>
<td>Musculoskeletal I</td>
</tr>
<tr>
<td></td>
<td><strong>Total Summer II</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Year 2 Term 5 Fall II (8 weeks clinical; 7 weeks didactic)</strong></td>
</tr>
<tr>
<td>PT 744</td>
<td>Medical Pathology in Physical Therapy IV</td>
</tr>
<tr>
<td>PT 754</td>
<td>Professional Practice III</td>
</tr>
<tr>
<td>PT 764</td>
<td>Evidence Based Practice III</td>
</tr>
<tr>
<td>PT 774</td>
<td>Clinical Application Seminar</td>
</tr>
<tr>
<td></td>
<td>&amp; Experiences (CASES) IV</td>
</tr>
<tr>
<td>PT 782</td>
<td>Musculoskeletal II</td>
</tr>
<tr>
<td>PT 791</td>
<td>Clinical Internship I</td>
</tr>
<tr>
<td></td>
<td><strong>Total Fall II</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Year 2 Term 6 Spring II (15 weeks)</strong></td>
</tr>
<tr>
<td>PT 704</td>
<td>Neurorehabilitation</td>
</tr>
<tr>
<td>PT 745</td>
<td>Medical Pathology in Physical Therapy V</td>
</tr>
<tr>
<td>PT 755</td>
<td>Professional Practice IV</td>
</tr>
<tr>
<td>PT 765</td>
<td>Evidence Based Practice IV</td>
</tr>
<tr>
<td>PT 775</td>
<td>Clinical Application Seminar</td>
</tr>
<tr>
<td></td>
<td>&amp; Experiences (CASES) V</td>
</tr>
<tr>
<td>PT 783</td>
<td>Cardio-Pulmonary Rehabilitation</td>
</tr>
<tr>
<td>PT 786</td>
<td>Rehabilitation Considerations</td>
</tr>
<tr>
<td></td>
<td>in Select Patient Populations I</td>
</tr>
<tr>
<td></td>
<td><strong>Total Spring II</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Year 3 Term 7 Summer III (11 weeks)</strong></td>
</tr>
<tr>
<td>PT 756</td>
<td>Professional Practice V</td>
</tr>
<tr>
<td>PT 766</td>
<td>Evidence Based Practice V</td>
</tr>
<tr>
<td>PT 776</td>
<td>Clin Application Sem &amp; Experiences (CASES) VI</td>
</tr>
<tr>
<td>PT 784</td>
<td>Integumentary</td>
</tr>
<tr>
<td>PT 787</td>
<td>Rehabilitation Considerations</td>
</tr>
<tr>
<td></td>
<td>in Select Patient Populations II</td>
</tr>
<tr>
<td></td>
<td><strong>Total Summer III</strong></td>
</tr>
</tbody>
</table>

(continued)
Year 3 Term 8 Fall III (6 weeks didactic; 12 weeks clinical)
   PT  757  Professional Practice VI
   PT  777  Clinical Application Seminar & Experiences (CASES) VII
   PT  785  Health Promotion and Nutrition
   PT  788  Rehabilitation Considerations in Select Patient Populations III
   PT  792  Clinical Internship II

Total Fall III .............................................................................................. 12

Year 3 Term 9 Spring III (1 week didactic; 15 weeks clinical)
   PT  767  Evidence Based Practice VI
   PT  793  Clinical Internship III

Total Spring III ........................................................................................... 9

PUBLIC HEALTH, M.P.H.

Program Description
The master’s degree in Public Health provides students with a high quality education and training that will make them valuable employees in today’s public health care enterprises. The program provides multidisciplinary education and training in the organization, technical, and clinical-medical aspects of public health.

Admission Requirements
Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website: www.marshall.edu/graduate/admissions/how-to-apply-for-admission.

Students may enter the program in three ways: 1) at the completion of a bachelor’s degree, 2) by transfer from another accredited university or school of higher learning, or 3) after the junior year of a B.S. degree with permission of the program director/chair (Marshall University students only). Specifically, a student who desires admission as a degree-seeking graduate student must have an overall undergraduate Grade Point Average of at least 2.5 on a 4.0 scale.

Degree Requirements
The Master of Public Health requires at least 4 semesters of coursework, including a capstone, or practicum, experience. The total number of credits includes at least 43 post-baccalaureate hours of study. A cumulative Grade Point Average of 3.0 must be maintained throughout the program.

Year One
Fall
   BSC  517  Biostatistics........................................................................................................
   MIS  578  Management Information Systems
   PH  610  Introduction to Public Health Seminar
   PH  620  Public Health Issues

Total for semester ........................................................................................... 10 hrs.

Spring
   HCA  600  The Health Care System
   HCA  659  Health Care for Rural and Underserved Populations
   CMM  574  Health Communications

Total for semester ........................................................................................... 9 hrs.
Year Two

Fall:

PH 660 Environmental Public Health 
DTS 670 Advanced Medical Nutrition Therapy 
PH 650 Health Promotion and Disease Prevention

Total for semester ................................................................. 9 hrs.

Spring

PH 690 Community Health. 
HCA 657 Health Care Law and Public Policy 
PH 678 Principles of Epidemiology in Public Health.

Total for semester ................................................................. 9 hrs.

Summer

PH 691 Master of Public Health Practicum

Total for semester ................................................................. 6 hrs.

Total Hours Required for Graduation ....................................... 43 hrs.
COMPUTER SCIENCE, M.S.

Program Description
The Master of Science in Computer Science (MSCS) degree is designed to provide students with the knowledge, skill, and professional practices needed to develop complex software systems. The program also prepares students who desire to pursue further graduate work leading to a Ph.D. degree.

Admission Requirements
Applicants should follow the admissions process as stated in the Graduate Catalog or the graduate admissions website. A four-year bachelor’s degree in Computer Science, Information Technology, Information Systems, or related area is required. Undergraduate coursework should comprise at least one course each from any of the following seven (7) areas prior to admission, all with a minimum grade of C:
- Discrete Structures
- Software Engineering
- Probability and Statistics
- Linear Algebra
- Programming Fundamentals
- Data Structures and Algorithms
- Operating Systems Internetworking
- Cybersecurity
- Database Systems
- Automata and Formal Languages
- Computer Architecture
- Programming Languages

Foreign nationals must score in the IELTS Band 6.5 on the TOEFL, and must have met all other admission criteria prior to registering for the first semester of courses.

Applicants must submit official transcripts of all college-level courses. Whether a student meets the above prerequisite course requirements will be determined by the division chair or designee based on the information provided in the admission application and transcripts.

Degree Requirements
The MSCS degree requires 30 credit hours (CR) of graduate work. At least 18 CR must come from 600-level courses. The 30 CR is comprised of the following components:
- Two required 600-level CS courses (6 CR):
  - CS 620 Applied Algorithms
  - CS 660 Big Data Analytics
- 12 CR from any 500- or 600-level CS courses
- 12 CR from one of the following options:
  - Thesis option. 6 CR from any 600-level CS elective courses and completion of 6 CR of research (CS 681) and a thesis. Students must summarize their thesis work in the form of a formal, written document and deliver an oral presentation. Thesis work is typically conducted over two semesters.
  - Project option. 9 CR from any 600-level CS elective courses and completion of a 3 CR of comprehensive project (CS 690) and a report. The comprehensive project option involves collecting research literature on a topic of interest in consultation with academic advisor, critically examining the literature, and summarizing the research in the form of a formal technical report. This option may also involve developing software systems. Students must deliver an oral presentation of their findings. Student selects a topic for the report in consultation with academic advisor prior to the beginning of the last semester of study. Project work requires effort equivalent to a 3 CR course and is typically completed during the last semester of study.
Plan of Study

Students are required to complete a Plan of Study form in consultation with their academic advisors before the students can begin their program of study. This is usually done the week before the first day of classes of first semester.

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 620</td>
<td>Applied Algorithms</td>
</tr>
<tr>
<td>CS 660</td>
<td>Big Data Systems</td>
</tr>
</tbody>
</table>

500-level Elective Courses

Any of the following courses may be used as 500-level electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 502</td>
<td>Computer Architecture</td>
</tr>
<tr>
<td>CS 504</td>
<td>High Performance Computing</td>
</tr>
<tr>
<td>CS 505</td>
<td>Computing for Bioinformatics</td>
</tr>
<tr>
<td>CS 510</td>
<td>Database Systems</td>
</tr>
<tr>
<td>CS 540</td>
<td>Digital Image Processing</td>
</tr>
<tr>
<td>CS 550</td>
<td>Information Retrieval</td>
</tr>
<tr>
<td>CS 552</td>
<td>Natural Language Processing</td>
</tr>
</tbody>
</table>

600-level Elective Courses

Any of the following courses may be used as 600-level electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 605</td>
<td>Software Specifications</td>
</tr>
<tr>
<td>CS 610</td>
<td>Software Design</td>
</tr>
<tr>
<td>CS 615</td>
<td>Software Testing</td>
</tr>
<tr>
<td>CS 625</td>
<td>AI Principles and Methods</td>
</tr>
<tr>
<td>CS 630</td>
<td>Machine Learning</td>
</tr>
<tr>
<td>CS 645</td>
<td>Advanced Topics in Bioinformatics</td>
</tr>
<tr>
<td>CS 650-653</td>
<td>Special Topics</td>
</tr>
<tr>
<td>CS 670</td>
<td>Visual Analytics</td>
</tr>
<tr>
<td>CS 685-688</td>
<td>Independent Study</td>
</tr>
<tr>
<td>CS 690</td>
<td>Comprehensive Project</td>
</tr>
<tr>
<td>CS 681</td>
<td>Thesis</td>
</tr>
</tbody>
</table>

ENGINEERING, M.S.

Majors

Engineering Management
Environmental Engineering
Transportation and Infrastructure Engineering.

Program Description

The M.S. in Engineering (M.S.E.) program is an interdisciplinary engineering program designed to meet the specific needs of engineers employed in industry, government, and consulting, as well as those desiring a traditional research-based graduate degree. The program offers a broad core curriculum with opportunities for concentrated study in three majors: Engineering Management, Environmental Engineering, and Transportation and Infrastructure Engineering.

Admission Requirements

Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website: [www.marshall.edu/graduate/admissions/how-to-apply-for-admission](http://www.marshall.edu/graduate/admissions/how-to-apply-for-admission). Each applicant for admission to the M.S. in Engineering degree program must have an undergraduate engineering degree from either an accredited ABET curriculum or an internationally recognized program and meet one of the following (A, B, or C) admission requirement options:

A. Pass the PE exam, or
B. Have an undergraduate cumulative GPA of 3.00 or greater, or
C. Have an undergraduate cumulative GPA of 2.50 or greater. and satisfy at least two of the following:
   1. Pass the PE exam;
   2. Verbal GRE score of at least 145;
(3) quantitative GRE score at least 150; and/or
(4) analytical writing GRE score at least 3.0.

Additionally, to be considered for admission, international students must have an iBT TOEFL score of at least 85. or a Paper-Based TOEFL score of at least 527.

Students who do not meet admission requirement options A, B, or C are welcome to apply, and their applications will be considered for admission on a case-by-case basis. The program admission recommendation will be decided by the M.S.E. degree program coordinator based on a combination of GRE scores and level of performance in undergraduate engineering coursework.

Applicants who do not meet the above criteria but who do have an undergraduate engineering degree are welcome to apply as non-degree seeking students and take courses toward an M.S.E. degree. If a non-degree seeking student has at least a minimum cumulative graduate GPA of 3.30 in his or her first 9 credit hours of CITE M.S.E. courses, that student may re-apply to the university to be considered for admission to the M.S.E. degree program.

Eligibility to take the PE exam is based primarily on completion of an ABET-accredited undergraduate engineering degree in most states. Completion of a M.S.E. graduate degree at an institution with an ABET-accredited undergraduate degree does not fulfill that requirement to take the PE exam.

Degree Requirements

Each degree candidate is required to complete at least 30-33 graduate credit hours, depending on the option chosen below (project, thesis, or coursework only), with a cumulative Grade Point Average of 3.0 for the courses included in the student’s Plan of Study. At least one-half of the minimum required hours for the degree must be earned in classes numbered 600 or above.

Each degree-seeking student must file an approved Plan of Study, developed with a faculty advisor, before the student registers for the 12th credit hour. The Academic Regulations portion of the Graduate Catalog may be consulted for additional information.

A student may only earn the M.S.E. degree once. Therefore, students wishing to complete two of the three M.S.E. majors (i.e., double major) must complete all requirements for both majors before the degree is awarded. A maximum of 12 credit hours may be counted toward both majors, as approved by the student’s academic advisor in each major. An option must be selected for each major and the two options are permitted to be different. However, each major must have its own comprehensive assessment (i.e., comprehensive project, thesis, or comprehensive examination). For example, a single thesis and defense cannot satisfy the requirements for both majors.

Students may choose to complete either the project option, the thesis option, or the coursework only option after consultation with their academic advisors.

Project Option. The comprehensive project involves the application of coursework completed as part of the degree to a practical problem. Students will work with their advisors to identify an appropriate project and scope. Students must prepare a formal written report and deliver an oral presentation to a committee. Students register for TE 699, Comprehensive Project (3 hrs.) during the semester in which their project will be completed and presented, but preliminary work on the project may commence before that semester.

Thesis Option. The thesis option involves the completion of 6 hours of research (ENGR 682) under the direction of an advisor on an approved project. Students must summarize their work in the form of a formal, written document and successfully defend the thesis before a committee. Thesis work is typically conducted over two semesters.

Coursework Only Option. Students can complete 33 hours of coursework and then complete a comprehensive examination within the last two semesters of graduation to fulfill the requirements of their degree program. Examinations will be administered once per semester for all students.

MAJOR: Engineering Management

Project Option (30 hours)

Required courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EM 620</td>
<td>Management of Technical Human Resources and Organizations</td>
<td>3</td>
</tr>
<tr>
<td>EM 660</td>
<td>Project Management</td>
<td>3</td>
</tr>
<tr>
<td>EM 668</td>
<td>Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>EM 670</td>
<td>Seminar in Engineering Management</td>
<td>3</td>
</tr>
<tr>
<td>EM 675</td>
<td>Engineering Economics (or TM equivalent)</td>
<td>3</td>
</tr>
<tr>
<td>EM 694</td>
<td>Engineering Law</td>
<td>3</td>
</tr>
</tbody>
</table>
ENGR 610  Applied Statistics ..............................................................................................3 hrs.
TE 699  Comprehensive Project

Elective courses
See approved Engineering Management electives below .................................................. 6 hrs.

Thesis Option (30 hours)
Required courses
- EM 620  Management of Technical Human Resources and Organizations ...... 3 hrs.
- EM 660  Project Management ....................................................................................3 hrs.
- EM 668  Operations Management ..............................................................................3 hrs.
- EM 670  Seminar in Engineering Management .......................................................3 hrs.
- EM 675  Engineering Economics (or TM equivalent) .............................................3 hrs.
- EM 694  Engineering Law .........................................................................................3 hrs.
- ENGR 610  Applied Statistics .....................................................................................3 hrs.
- ENGR 682  Research .................................................................................................6 hrs.

Elective course
See approved Engineering Management electives below ................................................3 hrs.

Coursework Only Option (33 hours)
Required courses
- EM 620  Management of Technical Human Resources and Organizations ...... 3 hrs.
- EM 660  Project Management ....................................................................................3 hrs.
- EM 668  Operations Management ..............................................................................3 hrs.
- EM 670  Seminar in Engineering Management .......................................................3 hrs.
- EM 675  Engineering Economics (or TM equivalent) .............................................3 hrs.
- EM 694  Engineering Law .........................................................................................3 hrs.
- ENGR 610  Applied Statistics .....................................................................................3 hrs.

Elective courses
See approved Engineering Management electives below ..............................................12 hrs.

Approved Elective Courses for the Engineering Management Major
- Any EM (Engineering Management) course.
- Any TM (Technology Management) course.
- Any College of Business course approved in advance by the advisor.
- Any engineering course approved in advance by the advisor.

MAJOR: Environmental Engineering
Each Environmental Engineering major must have completed the Foundation Courses listed below (and their associated prerequisites), or their equivalents as approved by his or her advisor, before being fully admitted. Until this requirement is satisfied, the student can only receive Provisional admission to the program. All other admission requirements must still be satisfied.

Foundation courses
- ENGR 318  Fluid Mechanics
- CE 331  Hydraulic Engineering
- CE 432  Water/Wastewater Treatment

Project Option (30 hours)
Required courses
- One of ENGR 610, ENGR 620, or ME 601 .................................................................3 hrs.
- ENVE 615  Environmental Chemistry ........................................................................3 hrs.
- TE 699  Comprehensive Project ..............................................................................3 hrs.

Three courses—one per category—from among the following six categories..................... 9 hrs.
1. Project Management: EM 660
2. Water/Wastewater: ENVE 616 or ENVE 617

(continued)
(3) Solid/Hazardous Waste: ENVE 620 or ENVE 625
(4) Air Pollution: ENVE 611, ENVE 612, ENVE 680, or ES 604
(5) Hydraulics/Hydrology: ENVE 670, ENVE 671, or ENVE 672
(6) Env. Remediation/Risk/Mgmt.: ENVE 682, ES 514, ES 620
   ES 514 Environmental Risk Assessment
   ES 550 Environmental Law
   TE 699 Comprehensive Project ................................................................. 3 hrs.
   ENGR 610 Applied Statistics ................................................................. 3 hrs.

One of the following three courses:
   ES 620 Environmental Management Systems
   ES 640 Groundwater Principles
   ES 646 Dynamics of Ecosystems

Elective courses
   See approved Environmental Engineering electives that follow ............................... 6 hrs.

Thesis Option (30 hours)

Required courses
   One of ENGR 610, ENGR 620, or ME 601 .............................................. 3 hrs.
   ENVE 615 Environmental Chemistry ...................................................... 3 hrs.
   ENGR 682 Research .................................................................................... 6 hrs.

Three courses—one per category—from among the following six categories .................. 9 hrs.
   (1) Project Management: EM 660
   (2) Water/Wastewater: ENVE 616 or ENVE 617
   (3) Solid/Hazardous Waste: ENVE 620 or ENVE 625
   (4) Air Pollution: ENVE 611, ENVE 612, ENVE 680, or ES 604
   (5) Hydraulics/Hydrology: ENVE 670, ENVE 671, or ENVE 672
   (6) Env. Remediation/Risk/Mgmt.: ENVE 682, ES 514, ES 620

Elective course
   See approved Environmental Engineering electives that follow ................................ 3 hrs.

Coursework Only Option (33 hours)

Required courses
   One of ENGR 610, ENGR 620, or ME 601 .............................................. 3 hrs.
   ENVE 615 Environmental Chemistry ...................................................... 3 hrs.

Three courses—one per category—from among the following six categories ............... 9 hrs.
   (1) Project Management: EM 660
   (2) Water/Wastewater: ENVE 616 or ENVE 617
   (3) Solid/Hazardous Waste: ENVE 620 or ENVE 625
   (4) Air Pollution: ENVE 611, ENVE 612, ENVE 680, or ES 604
   (5) Hydraulics/Hydrology: ENVE 670, ENVE 671, or ENVE 672
   (6) Env. Remediation/Risk/Mgmt.: ENVE 682, ES 514, ES 620

Elective courses
   See approved Environmental Engineering electives that follow ............................... 18 hrs.

Approved Elective Courses for the Environmental Engineering Major

   Any ENVE course;
   Any course listed above not already taken;
   ES 550, Environmental Law;
   ES 630, Environmental Site Assessment;
   ES 640, Groundwater Principles and Monitoring;
   Other courses approved in advance by the student’s advisor.
MAJOR: Transportation and Infrastructure Engineering

Each Transportation and Infrastructure Engineering major must have completed the Foundation Courses listed below (and their associated prerequisites), or their equivalents as approved by his or her advisor, before being fully admitted. Until this requirement is satisfied, the student can only receive Provisional admission to the program. All other admission requirements must still be satisfied.

**Foundation courses**

- CE 312 Structural Analysis
- CE 342 Transportation Engineering
- CE 413 Reinforced Concrete or CE 414 Steel Design

Students pursuing the Project Option or the Thesis Option must choose either Transportation Engineering or Structural Engineering as their primary focus. The other discipline will be the student’s secondary focus. Three courses must be completed in the primary focus and two courses in the secondary focus for the Project and Thesis options. The Coursework Only Option requires three courses in both disciplines.

**Project Option (30 hours)**

- ENGR 610 Applied Statistics or other Advisor-Approved MTH course .......... 3 hrs.
- Three (3) Courses in Primary Focus (Structural Engineering or Transportation Engineering) ................................................................. 9 hrs.
- Two (2) Courses in Secondary Focus (Structural Engineering or Transportation Engineering) ................................................................. 6 hrs.
- Three (3) Elective Courses ........................................................................................................ 9 hrs.
- TE 699 Comprehensive Project ........................................................................... 3 hrs.

**Thesis Option (30 hours)**

- ENGR 610 Applied Statistics or other Advisor-Approved MTH course .......... 3 hrs.
- Three (3) Courses in Primary Focus (Structural Engineering or Transportation Engineering) ................................................................. 9 hrs.
- Two (2) Courses in Secondary Focus (Structural Engineering or Transportation Engineering) ................................................................. 6 hrs.
- Two (2) Elective Courses ........................................................................................................... 6 hrs.
- ENGR 682 Research ............................................................................................................. 6 hrs.

**Coursework-Only Option (33 hours)**

- ENGR 610 Applied Statistics or other Advisor-Approved MTH course .......... 3 hrs.
- EM 660 Project Management ........................................................................................ 3 hrs.
- Three (3) Courses in Structural Engineering .............................................................. 9 hrs.
- Three (3) Courses in Transportation Engineering ...................................................... 9 hrs.
- Three (3) Elective Courses ........................................................................................................ 9 hrs.

**Structural Engineering Courses**

- CE 612 Structural Steel Design and Behavior .......................................................... 3 hrs.
- CE 614 Advanced Reinforced Concrete Structure Design and Behavior ..... 3 hrs.
- CE 615 Finite Element Applications in Civil Engineering ................................. 3 hrs.
- CE 616 Pre-stressed Concrete Design ................................................................. 3 hrs.
- CE 618 Bridge Engineering ......................................................................................... 3 hrs.

**Transportation Engineering Courses**

- CE 534 Geometric Design of Highways ................................................................. 3 hrs.
- CE 538 Pavement Design .......................................................................................... 3 hrs.
- CE 634 Traffic Engineering ......................................................................................... 3 hrs.
- CE 635 Evaluation of Transportation Systems ..................................................... 3 hrs.
- CE 636 Transportation Planning .................................................................................. 3 hrs.
- CE 637 Highway Safety Engineering ........................................................................ 3 hrs.
Approved Elective Courses for the Transportation and Infrastructure Engineering Major

Any Transportation Engineering or Structural Engineering course not already taken.
Any ENVE (Environmental Engineering) course approved in advance by the student’s advisor.
Any EM (Engineering Management) course approved in advance by the student’s advisor.
Other courses approved in advance by the student’s advisor.

ENVIRONMENTAL SCIENCE, M.S.
Minor in Environmental Science

Program Description

The environmental science program gives the student the broad multi-disciplinary subject matter and analytical tools necessary to be successful in such professions as consulting, industrial environmental management and environmental protection. Students from diverse science backgrounds apply their knowledge and skills to environmental problems, such as air pollution and control; water pollution and treatment; groundwater protection, contamination and remediation; solid and hazardous waste management.

Admission Requirements

Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website: www.marshall.edu/graduate/admissions/how-to-apply-for-admission.

Each applicant must satisfy at least ONE of the following criteria:
- Score at the mean or above on the verbal GRE
- Score at the mean or above on the quantitative GRE
- Score at the mean or above on the analytical GRE
- Score at the mean or above on the Miller Analogies Test
- Have an undergraduate GPA of 2.50 or above
- Have passed the Fundamentals of Engineering exam and/or the Professional Engineering exam

In addition to the general requirements all students entering the graduate Environmental Science program must have completed prior to admission the following courses OR their equivalent:

Chemistry 211 and Math 130 with a grade of C or better, AND a minimum total of FIVE (5) courses/competencies, relevant to environmental science, from the following: Chemistry (200 level or above); Physics (200 level or above); Biology; Geology; Geography; Statistics; Soil Science; Law; Health and Economics; 10 years relevant work experience.

Degree Requirements

Students must complete 36 graduate credit hours at the graduate level, including at least 24 credit hours at Marshall University. The degree consists of 12 credit hours of core courses; 12 credit hours of required courses; and 12 credit hours of electives.

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>EM 660</td>
<td>Project Management</td>
</tr>
<tr>
<td>ENGR 610</td>
<td>Applied Statistics</td>
</tr>
<tr>
<td>TE 698</td>
<td>Comprehensive Project Formulation (or ES 585, Introduction to Environmental Science)</td>
</tr>
<tr>
<td>TE 699</td>
<td>Comprehensive Project - after completion of 27 hours</td>
</tr>
<tr>
<td>ES 680</td>
<td>Thesis, may be taken instead of TE 698 and TE 699</td>
</tr>
</tbody>
</table>

Additional Degree Requirements for Program

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES 514</td>
<td>Environmental Risk Assessment</td>
</tr>
<tr>
<td>ENVE 615</td>
<td>Environmental Chemistry</td>
</tr>
<tr>
<td>ES 550</td>
<td>Environmental Law I (or ES 662 or ES 655)</td>
</tr>
<tr>
<td>ES 620</td>
<td>Environmental Management Systems (or ES 640 or ES 646)</td>
</tr>
</tbody>
</table>
To fulfill the Core requirement, 6 credit hours must be satisfied by the TE 698/TE 699 sequence (to complete a comprehensive project) OR six hours of ES 680 (to complete a thesis). Comprehensive projects and the resulting write-up tend to be based on the application of the Environmental Science degree to professional projects, whereas a thesis is written as an output of a research project.

**Electives**

On completion of the MS Environmental Science degree program the student should have the requisite scope of knowledge and competency in specific environmental subject matter. Students are required to take 12 credit hours of elective courses and use them to satisfy proficiency courses: TWO Environmental Science program electives; ONE division elective (an approved course in the division); ONE CITE elective (an approved course in CITE). The required and elective courses should be outlined in the Plan of Study. The Plan of Study should be developed in cooperation with and signed by the student’s advisor and should be completed prior to registration for the 12th credit hour.

**Graduate Minor in Environmental Science**

The Graduate Minor in Environmental Science can be completed through 9 hours of coursework:

- ES 514 Risk Assessment OR
- ES 610 Environmental Sampling Practice OR
- ES 630 Site Assessment
- ENVE 615 Environmental Chemistry OR
- ES 646 Dynamics of Ecosystems OR
- ES 654 Environmental Microbiology
- ES 550 Environmental Law OR
- ES 662 Environmental Policy OR
- ES 655 Environmental Ethics

**INFORMATION SYSTEMS, M.S.**

**Program Description**

The Information Systems program prepares participants to be effective users, designers, and developers of information systems, people who can add value to processes and products in organizations. The program also helps participants improve their professional writing, presentation, and teamwork abilities. Specific objectives expected of graduates include:

- The ability to describe a situation as a system, specifying components, boundaries, and interfaces
- Communication skills for effectively leading teams, collaborating with managers in defining needs and opportunities, and assisting colleagues
- Knowledge of the basic hardware and software components of computer systems and their configurations
- The ability to develop specifications for a software system in terms of functions, modules, and interfaces
- The ability to gather and use information needed by information systems professionals
- Mastery of the technical and human skills needed to successfully deploy information technologies in various organizational settings.

**Admission Requirements**

Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website [www.marshall.edu/graduate/admissions/how-to-apply-for-admission](http://www.marshall.edu/graduate/admissions/how-to-apply-for-admission).

Each applicant for admission to the M.S. in Information Systems program must satisfy at least TWO of the following criteria:

- Score at the mean or above on the verbal GRE;
- Score at the mean or above on the quantitative GRE;
- Score at the mean or above on the analytical writing portion of the GRE;
- Score at the mean or above on the Miller Analogies Test;
- Have an undergraduate GPA of 2.75 or above;

Applicants with a wide variety of backgrounds are welcome.

(continued)
In addition to the admission requirements stated above, an applicant wishing to major in Information Systems must have the following credentials and abilities:

- Ability to write structured programs in a high-level language and familiarity with computer systems
- Basic mathematical ability. College algebra with a grade of B would minimally meet this requirement
- Ability to use computer software for word processing, spreadsheet analysis, telecommunications, and data management
- Ability to write a coherent, grammatically correct report

Prospective students without the skills outlined above should take the following courses or their equivalents before entering the degree program:

- Computer Systems and Programming: IS 510 or equivalent
- Mathematical Maturity: College algebra
- Communication Skills: This need will normally be addressed by requirements within the program. In some cases, additional work may be required.

Degree Requirements

Students must complete 36 graduate credit hours, including at least 24 credit hours at Marshall University. The degree consists of 27 credit hours of required courses and 9 hours of approved elective courses.

Required courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS 600</td>
<td>Management Information Systems</td>
</tr>
<tr>
<td>IS 605</td>
<td>Systems Analysis Techniques</td>
</tr>
<tr>
<td>IS 610</td>
<td>Systems Design</td>
</tr>
<tr>
<td>IS 621</td>
<td>Information Structures 1</td>
</tr>
<tr>
<td>IS 622</td>
<td>Information Structures 2</td>
</tr>
<tr>
<td>IS 623</td>
<td>Database Management</td>
</tr>
<tr>
<td>EM 660</td>
<td>Project Management</td>
</tr>
<tr>
<td>TE 698</td>
<td>Comprehensive Project Formulation</td>
</tr>
<tr>
<td>TE 699</td>
<td>Comprehensive Project – after completion of min. 27 hours</td>
</tr>
</tbody>
</table>

Electives:

Three or more elective courses approved by the student's advisor complete the program. In addition to Information Systems courses, these may include courses offered by other majors and by other institutions.

MECHANICAL ENGINEERING, M.S.M.E.

Program Description

The Master of Science in Mechanical Engineering (M.S.M.E.) degree is designed to provide students with the knowledge, skill, and professional practices needed to develop and design mechanical engineering related systems. The program also prepares students who desire to pursue further graduate work leading to a Ph.D. degree.

Admission Requirements

Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website: www.marshall.edu/graduate/programs/how-to-apply-for-admission. Each applicant for admission to the M.S. in Mechanical Engineering degree program must have an undergraduate engineering degree from either an accredited ABET curriculum or an internationally recognized program and meet one of the following (A, B, or C) admission requirement options:

A. Pass the PE exam, or
B. Have an undergraduate cumulative GPA of 3.00 or greater, or
C. Have an undergraduate cumulative GPA of 2.50 or greater, and satisfy at least two of the following:
   (1) Pass the PE exam,
   (2) verbal GRE score at least 145,
   (3) quantitative GRE score at least 150, and/or
   (4) analytical writing GRE score at least 3.0.

Additionally, to be considered for admission, international students must have an iBT TOEFL score of at least 85, or a Paper-Based TOEFL score of at least 527.
Students who do not meet admission requirement options A, B, or C are welcome to apply, and their applications will be considered for admission on a case-by-case basis. The program admission recommendation will be decided by the M.S.M.E. degree program coordinator based on a combination of GRE scores and level of performance in undergraduate engineering coursework.

Applicants who do not meet the above criteria but have an undergraduate engineering degree are welcome to apply as non-degree seeking students and take classes toward the M.S.M.E. degree. If the student has a minimum cumulative graduate GPA of 3.30 in his or her first 9 credit hours of CITE M.S.M.E. courses, that student may re-apply to the university to be considered for admission to the M.S.M.E. degree program.

Eligibility to take the PE exam is based primarily on completion of an ABET-accredited undergraduate engineering degree in most states. Completion of a M.S.M.E. graduate degree at an institution with an ABET-accredited undergraduate degree does not fulfill that requirement to take the PE exam.

Degree Requirements

Each degree candidate is required to complete at least 30-33 graduate credit hours, depending on the option chosen below (project, thesis, or coursework only), with a cumulative Grade Point Average of 3.0 for the courses included in the student’s Plan of Study. At least one-half of the minimum required hours for the degree must be earned in classes numbered 600 or above.

Each degree-seeking student must file an approved “Plan of Study,” developed with a faculty advisor, before the student registers for the 12th credit hour. The Academic Regulations portion of the Graduate Catalog may be consulted for additional information. The Plan of Study should define a Focus Area for the individual student that is related to the student’s technical and professional development interests. Focus areas include sustainability, materials and manufacturing, bio-mechanical engineering, thermo/fluids, and mechanics/design. At least three of the elective courses (9 CR) must be within the student’s Focus Area at the 600-level.

Students may choose to complete either the project option, the thesis option, or the coursework-only option after consultation with their academic advisor.

**Project Option (30 hours).** The comprehensive project involves the application of coursework completed as part of the degree to a practical problem. Students will work with their advisors to identify an appropriate project and scope. Students must prepare a formal written report and deliver an oral presentation to a committee. Students register for ENGR 699, Comprehensive Project (3 HR) during the semester in which their project will be completed and presented, but preliminary work on the project may commence before that semester.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR 570</td>
<td>Finite Element Analysis</td>
</tr>
<tr>
<td>ME 601</td>
<td>Advanced Engineering Analysis I</td>
</tr>
<tr>
<td>ME 602</td>
<td>Advanced Engineering Analysis II (or ENGR 610 with advisor approval)</td>
</tr>
<tr>
<td>ME 604</td>
<td>Research Methods</td>
</tr>
<tr>
<td></td>
<td>Five (5) Elective Courses (15 hrs.)</td>
</tr>
<tr>
<td>ENGR 699</td>
<td>Comprehensive Project</td>
</tr>
</tbody>
</table>

**Thesis Option (30 hours).** The thesis option involves the completion of 6 HR of research (ENGR 681) under the direction of an advisor on an approved project. The student must prepare a formal thesis proposal (including a statement of work, extensive literature search, and proposed timeline) in consultation with his or her advisor and present the proposal to the graduate thesis committee, which is formed in consultation with the advisor. The thesis proposal must be defended and approved by the thesis committee prior to the final semester of study (typically completed during first semester of ENGR 682). Students must then summarize their research work in the form of a formal, written thesis and successfully defend it before their thesis committee in order to fulfill the requirements for the degree (typically completed during second semester of ENGR 682). Thesis work is typically conducted over two semesters.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR 570</td>
<td>Finite Element Analysis</td>
</tr>
<tr>
<td>ME 601</td>
<td>Advanced Engineering Analysis I</td>
</tr>
<tr>
<td>ME 602</td>
<td>Advanced Engineering Analysis II (or ENGR 610 with advisor approval)</td>
</tr>
<tr>
<td>ME 604</td>
<td>Research Methods</td>
</tr>
<tr>
<td></td>
<td>Four (4) Elective Courses (12 hrs.)</td>
</tr>
<tr>
<td>ENGR 682</td>
<td>Research</td>
</tr>
</tbody>
</table>

**Coursework-Only Option (33 hours).** Students can complete 33 hours of coursework and then complete a comprehensive examination within the last two semesters of graduation to fulfill the requirements of their degree. Examinations will be administered once per semester for all students.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR 570</td>
<td>Finite Element Analysis</td>
</tr>
<tr>
<td>ME 601</td>
<td>Advanced Engineering Analysis I</td>
</tr>
</tbody>
</table>

(continued)
Approved Elective Courses

Any ME (Mechanical Engineering) course approved in advance by the student’s advisor
Any CE (Civil Engineering) course approved in advance by the student’s advisor
Any EM (Engineering Management) course approved in advance by the student’s advisor
Any ENGR (Engineering) course approved in advance by the student’s advisor

SAFETY, M.S.

Areas of Emphasis

Mine Safety
Occupational Safety and Health
Minor in Safety

Program Description

No human endeavor or undertaking can be done without involving the field of safety technology. Safety professionals work in a variety of situations alongside management to ensure the health and safety of all employees. The graduate curriculum in Safety offers two areas of emphasis: Mine Safety and Occupational Safety and Health. The Master of Science degree has a 36 semester credit-hour requirement. A thesis may be submitted which would require 32 credit hours of graduate coursework with no more than 6 credit-hours to be earned by the thesis. A final (written) comprehensive examination is administered to all candidates, thesis and non-thesis, by a committee of three members of the graduate faculty in the College of Information Technology and Engineering (CITE), including the student’s advisor. Comprehensive examinations will be administered during the spring and fall semesters.

Admission Requirements

Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission.

In addition:

Each applicant for admission must have an undergraduate degree from an accredited college or university, and must satisfy at least ONE of the following criteria:

- Score at the mean or above on the verbal GRE
- Score at the mean or above on the quantitative GRE
- Score at the mean or above on the analytical GRE
- Score at the mean or above on the Miller Analogies Test
- Have an undergraduate GPA of 2.50 or above
- Have passed the Fundamentals of Engineering exam and/or the Professional Engineering exam

In addition to the general requirements all students entering the graduate Safety program must have completed prior to admission the following courses OR their equivalent:

- For the Area of Emphasis in Occupational Safety and Health:
  MTH 130, PHY 101 and 101L, and CHM 203

Degree Requirements

Area of Emphasis in Occupational Safety and Health

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFT 599</td>
<td>Occupational Safety Program Management</td>
</tr>
<tr>
<td>SFT 610</td>
<td>Philosophical and Psychological Concept</td>
</tr>
<tr>
<td>SFT 630</td>
<td>Current Literature and Research in Occupational Safety</td>
</tr>
</tbody>
</table>

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFT 540</td>
<td>Industrial Fire Protection</td>
</tr>
<tr>
<td>SFT 554</td>
<td>Industrial Hygiene I</td>
</tr>
</tbody>
</table>
SFT  597  Occupational Safety Program Development
SFT  645  Safety Engineering & Equipment Design
SFT  660  Human Factors in Accident Prevention  (OR)
SFT  560  Fundamentals of Ergonomics
ES  550  Environmental Law I

Electives:
9 hours chosen with advisor to give the student 18 hours of 600-level courses

Total hours including core, required, and elective courses ....................................36

Area of Emphasis in Mine Safety
The Mine Safety graduate program is offered in cooperation with the National Mine Safety and Health Academy (MSHA), Beckley, WV. The program is designed for underground and surface mining and is applicable to all aspects of the metallic and non-metallic mining industry. Typically students are MSHA employees and have five or more years experience in the mining industry; a technical background is required. A limited number of non-MSHA employees are permitted into the program; preference will be given to those with mining experience. The Division Chair of Applied Science Technology grants permission for admission to this area of emphasis. Only students admitted to Mine Safety will be eligible to take courses. Please contact the Division Chair for further information prior to applying for admission to this program.

Minor in Safety
Graduate students from other majors may obtain a graduate Minor in Safety by completing any three Safety Technology courses at the 500-level or 600-level for a total of nine hours of graduate work, with written permission in advance from the student’s academic advisor and the Department Chair prior to the student taking the courses.

TECHNOLOGY MANAGEMENT, M.S.
Areas of Emphasis
  Environmental Management
  Information Security
  Information Technology
  Manufacturing Systems
  Pharmacy (see TM Program Coordinator)
  Transportation Systems and Technology

Graduate Certificate in Information Security
Graduate Certificate in Bioinformatics
Graduate Certificate in Technology Management

Program Description
The M.S. in Technology Management degree program is designed primarily for working professionals with both technical and non-technical backgrounds who want a better understanding of technological change and its relevance to competitiveness and business strategy. Program coursework has a practical emphasis, with real-world projects designed to develop skills that can be put to use on the job immediately. Courses are currently available in Huntington and South Charleston with several courses offered online or virtually. Program benefits:
- Learn how to evaluate and use technology to meet changing customer needs and markets
- Learn how to weigh the costs/benefits of technology decisions
- Understand the effects of technological change on organizations and how to help people adapt to change
- Learn about technology life cycles and how to evaluate emerging technologies
- Explore common problems of management and organizations-and their relationships to technology
- Understand the interrelationships of quality, productivity, and technology
- Network with other professionals

Courses are offered using a variety of delivery methodologies to accommodate working and remote students. Most courses are available live on one of the Marshall campuses. Many also use an Internet-based learning management system so students may choose to attend live or via the Internet. Some classes are 100% online.

(continued)
Admission Requirements

Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission.

1. General Admissions Requirements

   Each applicant for admission must have an undergraduate degree from an accredited college or university (there is no stipulation concerning the undergraduate major) and must satisfy at least ONE of the following criteria
   - Score at the mean or above on the verbal GRE
   - Score at the mean or above on the quantitative GRE
   - Score at the mean or above on the analytical GRE
   - Score at the mean or above on the GMAT
   - Have an undergraduate GPA of 2.50 or above
   - Have previously completed a master’s degree from an accredited college or university.
   - Have 10 or more years of documented relevant professional work experience

2. Program Requirements

   In addition to the general requirements all students must complete the following:
   - Submit a written summary (2 typewritten pages maximum) of education and professional experiences, and career goals related to the TM program including the Area of Emphasis the applicant is interested in pursuing.
   - Complete an interview with the TM program coordinator or designee, with part of the interview consisting of discussion of the written summary.

Degree Requirements

Degree requirements consist of seven core courses (21 semester hours), four area-of-emphasis courses (12 semester hours), and a capstone project (3 semester hours), for a total of 36 semester hours. You must have the Technology Management advisor’s approval to enroll in Technology Management degree program courses.

Plan of Study

A Plan of Study approved by the student’s advisor must be on file before the student registers for his or her 12th semester hour. The Plan of Study is a student’s “blueprint” for completing graduation requirements.

Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>TM 610</td>
<td>Technology and Innovation Management</td>
</tr>
<tr>
<td>TM 612</td>
<td>Economic and Financial Analysis for Technology Management</td>
</tr>
<tr>
<td>TM 620</td>
<td>Technology Planning</td>
</tr>
<tr>
<td>TM 630</td>
<td>Quality and Productivity Methods</td>
</tr>
<tr>
<td>EM 620</td>
<td>Management of Technical Human Resources and Organizations</td>
</tr>
<tr>
<td>EM 660</td>
<td>Project Management</td>
</tr>
</tbody>
</table>

Plus one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>TM 615</td>
<td>Information Technology Strategies</td>
</tr>
<tr>
<td>EM 694</td>
<td>Engineering Law</td>
</tr>
</tbody>
</table>

Each student selects an area of emphasis, consisting of four courses. Currently, the following emphases are available:

**Environmental Management:**
- Environmental Regulations
- Environmental Risk Assessment
- Environmental Management Systems
- One course selected from among:
  - Hazardous Waste Management, Environmental Site Assessment, or Geographic Information Systems

**Information Security:**
- Information Security
- Communication and Network Technologies
- Computer Systems Security
- One additional 3 credit hour elective, chosen from TM or IS courses, with permission of the student’s advisor
Information Technology:
Four approved courses from the following list:
- Computing and Information Systems Technologies
- Communication and Network Technologies
- Multimedia Production and Electronic Information Dissemination
- Geographic Information Systems
- Health Informatics
- Software Engineering
- Information Security
- Computer Systems Security
Other courses may be taken with permission of the student’s advisor.

Manufacturing Systems:
- Applied Computer Integrated Manufacturing
- Modern Manufacturing Concepts
Two courses selected from:
- Applied statistics
- Operations Research I
- Operations Management
Other courses with permission of the advisor

Transportation Systems and Technologies:
This area of emphasis is offered in cooperation with the Nick J. Rahall II Appalachian Transportation Institute.
- Intelligent Transport Systems - Three courses, selected with Technology Management Advisor approval.
- Possible choices include: Traffic Engineering, Safety in Transportation, Human Factors in Accident Prevention, Traffic Safety Management, Urban and Regional Planning, Engineering Law, Operations Research I, Operations Research II, Transportation Systems, Geographic Information Systems. Some of these courses have prerequisites; students taking the courses must meet prerequisites.

The technology management capstone project (TM 699) will be work related, oriented toward the area of emphasis, and directed by an academic advisor.

Graduate Certificate in Information Security
Evidence of information security coursework is required for many federal and Department of Defense (DoD) funded projects. This certificate will meet the government requirements for certification and continuing education for several security certifications.

Admission Requirements
Students may pursue the graduate certificate while enrolled in the Technology Management M.S. program OR as a certificate-only student. Students already enrolled in the M.S. degree program should submit to Graduate Admissions a Secondary Program Request form: www.marshall.edu/graduate/secondary-program-request-form.

Applicants interested in the certificate-only program should apply for admission to Marshall University as a Certificate/Professional Development student and select on the application form the Certificate in Information Security. The admissions requirements for the certificate program are the same as for the Technology Management M.S. program.

Curriculum
- IS 631 Information Security
- IS 656 Communications and Network Technologies
- IS 646 Computer Systems Security
- IS 647 IT Disaster Planning & Recovery
- TM 615 IT Strategies
Credit Hours: 15 – All required

Graduate Certificate Program in Bioinformatics
The Marshall University bioinformatics certificate is designed to develop a working understanding of a variety of techniques and methods for analyzing vast amounts of biological data. The source of information may be associated with recent genomic research, but may also include data sets related to other complex biological problems involving such topics as structure modeling, database mining, and visualization.
The certificate is designed to complement existing degrees and to suit the needs of students and professionals who want to specialize in the fast-expanding field of bioinformatics. The certificate curriculum is interdisciplinary and includes courses from the College of Science, the College of Information Technology and Engineering, and the Joan C. Edwards School of Medicine. Through completion of the certificate, student will have acquired the necessary skills to analyze and interpret the large data sets using various bioinformatics tools.

Students who should apply for the certificate program would be biology, mathematics, chemistry, physics, and medical/biomedical students or medical doctors who desire to acquire skills required to understand bioinformatics methods and technology; computer science students who wish to understand biological concepts that can be analyzed using their programming skills; or health care professionals (medical, pharmaceutical, and agricultural industries) who desire to acquire bioinformatics knowledge relevant to their fields of expertise.

Students will earn the certificate by completing 15 credit hours, including 9 credit hours from 3 core courses, 3 credit hours from a first elective course, and another 3 credit hours from a second elective.

Admissions Requirements
1. Both senior-level undergraduate students with overall GPAs of at least 2.75 and graduate students may enroll in the certificate program.
2. Both undergraduate and graduate students must satisfy the following prerequisite requirement: Successful completion (grade of C or better) of MTH 140 or MTH 229, and one of MTH 225, MTH 326, or MTH 345.

Curriculum

- **Required courses:**
  - CS 505 Computing for Bioinformatics
  - BSC 550 Molecular Biology
  - CS 645 Advanced Topics in Bioinformatics

- **Elective I (choose one from the following):**
  - BSC 543 Microbial Genetics
  - CS 510 Database Systems.

- **Elective II (choose one from the following):**
  - BSC 617 Statistical Techniques for Biomedical Sciences
  - MTH 518 Biostatistics
  - CS 540 Digital Image Processing
  - CS 630 Machine Learning

**Total Certificate requirements: 15 credit hours**

Graduate Certificate in Technology Management

Completion of the seven core courses will qualify a student for a certificate in Technology Management, if he/she elects not to complete the Technology Management degree.

Admission Requirements

An applicant interested in the certificate program should apply for admission to Marshall University as a Certificate/Professional Development student and indicate the Certificate in Technology Management on the application. The admission requirements for the certificate program are the same as for the M.S. in Technology Management degree.

Curriculum

- TM 610 Technology and Innovation Management
- TM 612 Economic and Financial Analysis for Technology Management
- TM 620 Technology Planning
- TM 630 Quality and Productivity Methods
- EM 620 Management of Technical Human Resources and Organizations
- EM 660 Project Management

Plus one of the following:
- TM 615 Information Technology Strategies
- EM 694 Engineering Law
COMMUNICATION STUDIES, M.A.

Program Description

The M.A. degree in Communication Studies provides an opportunity for students to develop individual programs of theory, research, and application among the areas of interpersonal, organizational, and public communication. The program is designed for students who seek careers as communication professionals or who intend to pursue further graduate study in the field.

Admission Requirements

Applicants should follow the admissions process described in the Graduate Catalog, or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission.

Applicants also:
- must submit GRE scores. GRE scores on the verbal, quantitative and writing sample sections will be evaluated in conjunction with other application materials.
- must have a minimum 2.5 GPA on a 4.0 scale for all previously completed undergraduate university work. Students with less than a 3.0 GPA on a 4.0 scale for all previously completed undergraduate university work must attain a 900 score on the verbal and quantitative sections of the GRE (or the equivalent on the revised GRE) and a score of 4 on the GRE writing sample.

Assistantships and Financial Support

The Department of Communication Studies has funds available in the form of assistantships to provide financial support for graduate students. For complete information on graduate assistantships please see www.marshall.edu/graduate/graduate-assistantships-2/graduate-assistantship-overview.

For complete information on other financial support opportunities please see www.marshall.edu/graduate.

Program Requirements

A Plan of Study approved by the department/program and the graduate dean must be filed in the Graduate College office before the student registers for the 12th semester hour. Students prepare a Plan of Study in conjunction with a committee of three graduate faculty members. At least one member of the committee must have full graduate faculty status.

The Plan of Study must include CMM 601 and 606. A total of 36 credit hours is required for graduation. Students who write a thesis may earn six of those credit hours for the thesis. A minor or cognate outside the department may be approved by a student’s committee.

A written comprehensive exam, prepared and evaluated by the student’s committee, is required. A candidate who writes a thesis is also required to pass an oral examination on the thesis.

ENGLISH, M.A.

Area of Emphasis

Teaching English to Speakers of Other Languages (TESOL)

Program Description

The English M.A. at Marshall is designed to meet the increasingly diverse needs of today’s graduate students. Students are encouraged to approach their studies from the perspective that best serves their academic purposes and/or career plans, be it Literary Studies, Composition/Rhetoric, Creative Writing and/or TESOL/Linguistics. To this end, our program offers a great deal of flexibility at all levels.

Program Goals

Upon completion of the program students will be able to:
- articulate core issues in Literary Studies, Composition/Rhetoric, Creative Writing, and/or TESOL/Linguistics from diverse perspectives;

(continued)
• critique the major figures, works, and ideas in one or more of the above areas;
• apply the research methods and approaches to inquiry used in Literary Studies, Composition/Rhetoric, Creative Writing, and/or TESOL/Linguistics;
• articulate recent developments in these fields as influenced by other disciplines;
• elucidate major critical and cultural theories in Literary Studies, Composition/Rhetoric, Creative Writing, and/or TESOL/Linguistics, and assess sources on those theories in relation to the field;
• prepare a capstone project that demonstrates advanced knowledge and applied learning in Literary Studies, Composition/Rhetoric, Creative Writing, and/or TESOL/Linguistics.

Admission Requirements

Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission. All admission materials must be sent to the Graduate Admissions Office.

In addition, to be admitted to the English department, an applicant must have:
• an undergraduate Grade Point Average (GPA) of 3.0 or higher on a 4.0 scale for all previously completed undergraduate university work (otherwise strong candidates may be fully admitted with a 2.75 GPA);
• a letter of interest/personal statement identifying the applicant's reasons for pursuing an M.A. and how the degree will contribute to the applicant's broader plans (1-2 pages);
• a writing sample of 8-12 pages (scholarly essay, creative writing, or language study), prefaced by a brief explanation of why this work has been selected;
• at least three letters of recommendation, preferably from college instructors;
• current GRE scores.

International students and applicants who have earned a degree from a non-English institution must provide proof of English proficiency as follows: minimum of 80 on TOEFL IBT (or 550 paper based); IELTS 6.5.

Conditional Admission

The English M.A. program may admit applicants conditionally for one term, on a limited basis, at the discretion of the program.

Provisional Admission

The English M.A. program may admit applicants provisionally, on a limited basis, at the discretion of the program.

Program Requirements

To earn the master's degree in English the candidate must:
• complete 36 hours of coursework:
  • All students (with the exception of those completing the TESOL Area of Emphasis) must take ENG 630 in their first fall semester.
  • Teaching Assistants must take ENG 560 in their first fall semester and ENG 640 in their first spring semester.
  • Students are encouraged to select courses that best serve their academic purposes or career plans.
  • Students may take up to six graduate hours for credit outside the English Department as part of their coursework. In order to count toward credit for graduation, these courses must be relevant to the degree and be approved by the Department Chair and the Director of Graduate Programs.
• complete a capstone project from one of the following options:
  • Thesis (6 credit hours of ENG 681)
  • Portfolio (ENG 682 plus a 600-level course of the student’s choosing)
  • Comprehensive Exams (ENG 683 plus a 600-level course of the student’s choosing)
• maintain a 3.0 Grade Point Average
• earn six credit hours in a language other than English. Requirement may be fulfilled by:
  • documenting previous undergraduate coursework;
  • taking undergraduate courses while enrolled in the M.A. program (however, undergraduate courses do not count toward the M.A. degree)
  • demonstrating language ability to the satisfaction of the English Department.
Plan of Study
Before registering for the 12th credit hour, students are required to file a Plan of Study with the Director of Graduate Studies and the Graduate College. The Plan of Study is a student’s blueprint for graduation.

Good Standing
In addition to the requirements in the Graduate College’s standards for Good Standing, a student pursuing a M.A. in English will:
1) earn no more than two grades of C or lower in any graduate course.

M.A. IN ENGLISH WITH AREA OF EMPHASIS IN TESOL
(Teaching English to Speakers of Other Languages)
This area of emphasis in the M.A. program prepares students to teach English to adult speakers of other languages. The core curriculum explores both language pedagogy and applied linguistic theory. Upon completion of the degree, students will (1) be familiar with current methodologies in language teaching, (2) be able to use research findings within applied linguistics to make informed pedagogical decisions for local contexts, and (3) be able to engage in reflective teaching and observation practices.

Course Requirements
Prerequisite:
ENG 575 Introduction to Linguistics
Required 3-credit hour courses:
ENG 578 Introduction to Sociolinguistics
ENG 615 Teaching English and Applied Linguistics
ENG 618 TESOL Language Assessment
ENG 622 Language Development
ENG 626 Systemic Functional Grammar
ENG 670 Observation Practicum TESOL
Choose 1 from:
ENG 681 Thesis
ENG 682 Portfolio
ENG 683 Comprehensive Exams
Choose 3 from:
ENG 508 Advanced Expository Writing
ENG 560 Composition and Writing Center Theory 1
ENG 617 TESOL Curriculum Development and Materials Design
ENG 627 Text Analysis
ENG 633 Research Methods and Applied Linguistics
ENG 634 Teaching English for Academic Purposes
ENG 638 Language & Context
ENG 640 Teaching College English
ENG 671 Teaching Practicum TESOL
Choose 1 Pure Elective (any Marshall course offered at the graduate level)

TOTAL NUMBER OF CREDIT HOURS: 33

GEOGRAPHY, M.A., M.S.
Minor in Geography
Graduate Certificate in Geospatial Information Science-Basic
Graduate Certificate in Geospatial Information Science-Advanced
Accelerated Master’s Degree in Geography

(continued)
Program Description

Geography is the systematic study of the spatial aspects of human activity, the natural world, and human-environment interaction. The discipline of geography occupies a unique position as a bridge between the social sciences (Human Geography), natural sciences (Physical Geography), and STEM fields (GIScience). From this interdisciplinary perspective, geography helps us understand and address numerous contemporary challenges ranging from economic development, urban planning, and ethnic conflict to climate change, environmental sustainability, and natural resource management. As a result, geography is a rapidly expanding discipline with diverse career opportunities across the environmental sciences, social sciences, and technological fields in both the public and private sectors. Both the U.S. Department of Labor and the Bureau of Labor Statistics predict that demand for trained geographers will grow much faster than average over the next decade.

The Geography Department prepares students to succeed as professionals in today’s job market through an innovative curriculum focusing on building critical thinking, technical, and practical skills across a range of human geography, physical geography, and geospatial information science (GIScience) courses. The curriculum includes a mixture of classroom and lab instruction, hands-on projects, and professional internships experiences that actively engage students in the learning process and provide the skills necessary for lifelong learning. The department maintains state-of-the-art facilities, including technology-enhanced classrooms, a physical geography lab, and a GIScience computer lab, supporting students as they utilize the latest software and hardware. The department provides a supportive learning environment where students work closely with faculty and peers while enjoying numerous opportunities to participate in campus, state, and national professional activities.

Geography alumni have successfully applied their knowledge and practical skills in a variety of career paths in both the public and private sectors, including urban and regional planning, economic development, environment planning, natural resource and energy management, weather forecasting, emergency response and homeland security, GIS analysis, and education. Other alumni have continued with geography studies at the doctoral level.

Students wishing to earn a master’s degree in geography have the option of selecting either a Master of Arts (M.A.) or Master of Science (M.S.) degree. Both the M.S. and M.A. degree options prepare the graduate for professional employment or advanced work at the doctoral level. Because M.S. students are required to complete a thesis, the M.S. option is the best choice for students wishing to engage in geographical research projects or in preparation for entrance into a doctoral program.

For more information, please see the departmental website at www.marshall.edu/geography or call (304) 696-4364.

Admission Requirements

M.A. applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission.

M.S. applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission. In addition, M.S. applicants must:

- Submit GRE (Graduate Record Examination) scores with the graduate application;
- Have a minimum undergraduate GPA of 2.9 or minimum GRE scores (for those taking the GRE prior to August 2011 the scores must be: Verbal plus Quantitative greater than or equal to 900 and Writing greater than or equal to 3.5; for those taking the GRE after that date, the scores must be Verbal plus Quantitative greater than or equal to 290 and Writing greater than or equal to 3.5).

M.S. applicants demonstrating potential but not meeting these criteria may be admitted to the M.S. program with permission from the faculty.

Graduate Assistantships

Applications for department research or teaching assistantships are available from the department website at www.marshall.edu/geography. For more information about graduate assistantships at Marshall University, please see www.marshall.edu/graduate/graduate-assistantships-2/graduate-assistantship-overview.

For more information about other financial support, please see www.marshall.edu/graduate/costs-and-aid/how-to-finance-your-graduate-education.

Degree Requirements

Candidates for the master’s degree must meet the general requirements for the Graduate College and either complete a thesis with a minimum of 33 total credits (M.S.) or comprehensive exams with a minimum of 30 total credits (M.A.).

Required Courses (M.A.)

- GEO 615 Geographic Thought and Methods
- GEO 616 Geographical Research
- GEO 526 Principles of GIS (requirement waived if taken at the undergraduate level)
- GEO 679 Applied Projects
Statistics – 3 credit hours; choose from: EDF 517, SOC 606, CJ 656, MGT 500, PSC 604; requirement waived if statistics passed with a grade of C or better at the undergraduate level.

Of the 30 credit hours required for the M.A., at least 15 must be at the 600 level. Of the 30 credit hours, at least 24 must be GEO courses. Some electives from other departments may be taken to complement GEO courses, with permission of the graduate advisor.

Required Courses (M.S.)

- GEO 615 Geographic Thought and Methods
- GEO 616 Geographical Research
- GEO 526 Principles of GIS (requirement waived if taken at the undergraduate level)
- GEO 681 Thesis

Statistics – 3 credit hours; choose from: EDF 517, SOC 606, CJ 656, MGT 500, PSC 604; requirement waived if statistics passed with a grade of C or better at the undergraduate level

Of the 33 credit hours required for the M.S., at least 17 must be at the 600 level. Of the 33 credit hours, at least 27 must be GEO courses. Some electives from other departments may be taken to complement GEO courses, with permission of the graduate advisor.

Plan of Study

A Plan of Study approved by the student’s advisor must be submitted for approval to the Graduate College Dean before the student registers for his or her 12th semester hour. The Plan of Study is a student’s “blueprint” for completing graduation requirements.

Minor in Geography

Students who minor in Geography should choose a minimum of six hours of appropriate courses from one of the specialties below in consultation with their major faculty advisor and a Geography faculty advisor.

Regional Geography:

Physical Geography:
- Choose from GEO 520 (physical topic), 522, 525, 530, 531, 617-619, 620

Human Geography:
- Choose from GEO 501, 505, 506, 510, 511, 518, 519, 520 (human topic), 607, 617, 619

Planning:
- Choose from GEO 514, 515, 516, 520 (planning topic), 617-619

Geographic Information Systems/Remote Sensing:
- Choose from GEO 526, 529, 530, 531, 617-619, 631

Graduate Certificate in Geospatial Information Science-Basic

Admission Requirements

Students may pursue the graduate certificate while enrolled in the any master’s program OR as a certificate-only student.

- Students already enrolled in the master’s degree program should submit to Graduate Admissions a Secondary Program Request form at www.marshall.edu/graduate/secondary-program-request-form.
- Applicants interested in the certificate-only program should apply for admission to Marshall University as a Certificate/Professional Development student and select on the application form the Certificate in Geospatial Information Science-Basic.

Program

A graduate certificate in Geospatial Information Science-Basic consists of a minimum of 12 graduate hours in courses designated as GIScience Courses, including regularly offered courses as well as special topics courses. Students must take courses from at least two different departments for a graduate GIScience certificate. Students must have a B (3.0) average in their GIScience courses and no grade below a C (2.0) in their GIScience courses to earn the certificate. The program is designed to:

- offer GIS study in a variety of disciplines with a variety of applications;
- teach students GIS techniques;

(continued)
teach students to apply GIS to solve scientific research problems;
• encourage students to gain experience in the GIS field by means of internships;
• integrate GIS applications with computer science concepts;
• prepare students for GIS employment.

GIScience required course:

   GEO 526  Principles of GIS (requirement waived if GEO 426 or its equivalent taken as an undergraduate)

GIScience electives:

   BSC/PS 510  Remote Sensing with GIS Applications
   BSC/PS 511  Digital Image Processing and GIS Modeling
   GEO 529  Intermediate GIS – Vector Analysis
   GEO 530  Intermediate GIS – Raster Analysis
   GEO 531  Principles of Remote Sensing and Photogrammetry
   GEO 532  Enterprise GIS
   GEO 533  GPS and Mobile Geospatial Technologies
   GEO 631  Advanced GIS Projects
   GEO 690  Internship (Must be GIScience approved in advance)
   IS 645  Geographic Information Systems
   PLS 533  GIS and Remote Sensing in Natural Resource Management

Graduate Certificate in Geospatial Information Science-Advanced

Admission Requirements

Students may pursue the graduate certificate while enrolled in a master’s program OR as a certificate-only student.
• Applicants interested in the certificate-only program should apply for admission to Marshall University as a Certificate/Professional Development student and select on the application form the Certificate in Geospatial Information Science - Advanced.
• Students already enrolled in a master’s degree program should submit to Graduate Admissions a Secondary Program Request form at www.marshall.edu/graduate/secondary-program-request-form.

Applicants to the Graduate GIScience Certificate-Advanced program must have completed the Certificate in Geospatial Information Science-Basic before entry into the program. Students transferring from other institutions or Marshall graduates with the equivalent of the Basic certificate may enroll for the Advanced certificate.

GIScience credits can count toward a master’s degree in several departments such as Geography, Physical Science, Environmental Sciences, Technology Management, and Information Technology. Please see an advisor in the appropriate department.

Program

Geospatial Information Science is a research field that utilizes specialized computer hardware, software, and procedures for presentation and analysis of all types of natural and social science data referenced (mapped) to the earth’s surface. Students who complete the requirements for the Advanced certificate should be able to:
• perform advanced GIScience techniques using vector, raster, and remote sensing data;
• apply GIScience to display, support, and analyze research questions in the social or natural sciences;
• collect and create GIScience data using various technologies and software;
• recognize and apply computer science concepts such as data collection, representation, queries, and storage; and
• enter GIScience employment or continue GIScience work at the doctoral level.

An Advanced graduate certificate in GIScience consists of a minimum of 12 hours in courses designated as GIScience courses beyond the requirement for the GIScience Certificate-Basic. Students must have a B (3.0) average in all their GIScience courses and no grade below a C (2.0) in their GIScience courses to earn the certificate.

Required Courses

• At least one advanced analysis course: GEO 529 GIS Vector Analysis (3 hrs.) or GEO 530 GIS Raster Analysis (3 hrs.). This requirement is waived if a student completed one of these courses as part of the Certificate in Geospatial Information Science – Basic, an undergraduate equivalent of one of these courses, or an equivalent advanced analysis course from another institution.
• At least one remote sensing course: GEO 531 Principles of Remote Sensing and Photogrammetry (3 hours), BSC/PS 510 Remote Sensing with GIS Applications (4 hours), BSC 511/PS 511 Digital Image Processing and GIS Modeling (4 hrs.), PLS 533 GIS and Remote Sensing for Natural Resource Management (3 hrs.), or a Special Topics remote sensing course. This requirement is waived if a student completed one of these courses as part of the Certificate in Geospatial Information Science – Basic, an undergraduate equivalent of one of these courses, or an equivalent Remote Sensing course from another institution.

• At least one applications course or internship (minimum three credit hours): GEO 631 Advanced GIS Projects, GEO 690 Internship (must be GIScience approved in advance), IS 645 Geographic Information Systems.

GIScience electives

BSC 510/PS 510 Remote Sensing with GIS Applications (4 credit hours)
BSC 511/PS 511 Digital Image Processing and GIS Modeling (4 hrs.)
GEO 529 Intermediate GIS – Vector Analysis (3 hrs.)
GEO 530 Intermediate GIS – Raster Analysis (3 hrs.)
GEO 531 Principles of Remote Sensing and Photogrammetry (3 hrs.)
GEO 532 Enterprise GIS (3 hrs.)
GEO 533 GPS and Mobile Geospatial Technologies (3 hrs.)
GEO 631 Advanced GIS Projects (3 hrs.)
GEO 690 Internship (1-6 hrs.; must be GIScience approved in advance to qualify)
IS 645 Geographic Information Systems (3 hrs.)
PLS 533 GIS and Remote Sensing for Natural Resource Management

Special Topics courses as approved in advance by the GIScience Curriculum Committee
Independent Study courses as approved in advance by the GIScience Curriculum Committee

Accelerated Master's Degree in Geography

An Accelerated Master’s Degree is available for qualified undergraduate majors. See the Accelerated Master’s Degree section in this catalog for details.

HISTORY, M.A.

Minor in History

Graduate Certificate in Public History

Program Description: M.A.

Established in 1938, the history graduate program is one of the oldest at Marshall University. Since the program began, more than 300 Master of Arts degrees in history have been awarded. Although many students have concentrated on U. S. and European history, the department also offers courses in Asian, Middle Eastern, Latin American, African American, and Women’s history. In all fields of study students receive personal attention and direction that is often not available in larger graduate programs. It is recommended that students earn credit hours in a wide distribution of historical areas and periods from a diversity of instructors. Students may pursue either the thesis option or non-thesis option, but are encouraged to write a Master’s thesis.

Admission Requirements

Deadlines:

The department has established two deadlines for the submission of applications to the program.

October 1st (for a spring semester start) and March 1st (for a fall semester start) are the deadlines for the submission of all application materials. The graduate committee will review applications and make its decisions shortly after these dates.

Applicants should follow the admissions process described in the Graduate Catalog, or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission.

All materials should be submitted to the Graduate Admissions office.

Applicants must also submit to the Graduate Admissions office:

• two letters of recommendation;
• a writing sample drawn from work in a college course;
• satisfactory scores from the Graduate Record Examination (GRE) General Test.
Program Requirements

Students who have not completed an undergraduate major in history must have at least 15 hours of undergraduate courses in history, including 12 hours in the World and American history surveys. Students with deficiencies may be accepted provisionally and may be asked to take undergraduate courses suggested by the Director of Graduate Studies before full admission to the program.

Plan of Study

Students must submit to the department’s Director of Graduate Studies a Plan of Study in the semester prior to registering for the 12th semester hour. The Plan of Study is a student’s blueprint for graduation.

Students must earn a quality point average of at least 3.0 (B) on all graduate work applicable to the degree. A student who receives a second grade of C or below at any time while pursuing the Master of Arts degree in History will be withdrawn from the program. In addition, M.A. students in History must earn at least a 3.0 (B) grade point average in all History courses as a requirement for graduation.

Students must complete a minimum of 36 semester hours of graduate coursework. At least fifty percent of these hours must be completed at the 600 level. All students are required to complete History 600, Seminar in Historical Methods.

Thesis Option

Students who choose the thesis option must complete HST 681 for three to six credit hours.

Good Standing

In addition to the requirements listed in the Graduate College’s standards for Good Standing, a student pursuing a M.A. in History will:

1) Maintain a GPA of at least 3.0 (B) on all graduate work applicable to the degree, and
2) earn no more than one grade of C or below while pursuing the degree.

Minor in History

A minor in History is earned by taking at least 6 credit hours in courses at the 500- or 600- level in History as approved by the student’s advisor and the Graduate Program Director in the Department of History.

Graduate Certificate in Public History

This is an interdisciplinary program housed in Marshall University’s History department. The program will combine practical coursework with field experiences and draws upon the faculty and resources of five graduate programs to prepare the student for career opportunities in museums, historic homes, libraries, archives, state and national parks and for local, state and federal governmental agencies.

Admission Requirements

• The admissions requirements are the same as for the History Master's degree.
• Prospective certificate-only students should apply for admission to Marshall University as a Certificate/Professional Development student and select the Public History Certificate on the application form.
• Applicants should follow the admissions process described in the Graduate Catalog, or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission.
• Students already enrolled in the History master's program who wish to earn the certificate simultaneously can apply easily by submitting a Secondary Program Request form.

All materials should be submitted to the Graduate Admissions office.

Program Requirements

To earn a Certificate in Public History, students must complete 18 credit hours of relevant coursework. Nine credit hours are the required courses HST 537, HST 640 and HST 680. At least six of the remaining nine credit hours must come from the following list: HST 524, HST 538, HST 635. The remaining three credit hours may come from HST 524, HST 538, HST 635, ANT 567, GEO 506, JMC 575, MKT 511 or SOC 615. Certain Special Topics in the Graduate Humanities program may also be used. Students should check with the certificate administrator when selecting their courses.
HUMANITIES, M.A.
Graduate Certificate in Appalachian Studies
Graduate Certificate in Women's Studies

Program Description

The Master of Arts in Humanities stresses an interdisciplinary approach, embracing a variety of fields, while allowing conventional disciplinary studies as an integral part of the program. Students consult with faculty advisors to determine individual plans of study. After completing a prescribed core of humanities courses, the student elects one of four areas of concentration (Arts and Society; Cultural Studies; Historical Studies; Literary Studies). Although the student’s plan may encompass courses from more than one area of concentration it will have strong intellectual coherence. The program enhances the student’s ability to deal critically and flexibly with intellectual, social, political, historical, literary, or artistic issues with a broad humanistic perspective. The Humanities Program strongly encourages students not concerned with pursuing the degree (such as teachers using classes for certification and those who want to take courses for their own continuing education) to enroll as non-degree students.

Admission Requirements

Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission.

In addition applicants must have:

- a score in the 60th percentile or higher on the verbal section of the Graduate Record Examination (GRE) General Test or an equivalent score on the Miller Analogies Test (MAT);
- an undergraduate major in the humanities broadly defined;
- an overall undergraduate grade point average of 3.0 on a scale of 4, or a score in or above the 40th percentile in the GRE subject test of Literature in English.

Applicants who do not meet all of the above admissions requirements may be admitted provisionally. A provisionally admitted student must earn a grade of B or above in their first twelve hours of coursework in the humanities, the twelve hours to include the course in Expository Writing for Research (Humanities 604) and one other core course (HUMN 600, 601, 602, 603, or 605).

Program Requirements

Degree students have the options of a thesis or final project. Students electing the thesis complete a total of 36 hours, six of which are the thesis (HUMN 680 and 681). Students electing the project option complete a total of 39 hours, three of which are the project (HUMN 680).

With both options, students must pass a comprehensive examination. All individual plans of study are organized according to the following general structure:

I. Humanities Core (12 hours):
   - HUMN 600 Introduction to Study in Humanities
   - HUMN 604 Expository Writing for Research
   - Two others from the following:
     - HUMN 601 Literary Theory and Criticism
     - HUMN 602 Historical Studies
     - HUMN 603 History and Theory of the Arts
     - HUMN 605 Western Traditions and Contemporary Cultures

II. Concentration (minimum of 15 hours);

III. Program Electives (3-12 hours);

IV. Independent Research Project (3 hours) or Thesis (6 hours).

Plan of Study

Before registration for the 12th graduate credit hour, all graduate students must complete an official Plan of Study form to be approved by the Graduate Director and/or Department Chair and submitted to the Graduate College Office.

Within a concentration, a student may select courses to develop personal interests. Note: Not all courses are offered at every teaching site. Students should understand that some plans of study may require travel to other teaching sites in West Virginia.

No more than twelve hours may be taken at the 500 level. A student nearing the completion of a plan of study may request an independent study course on a topic unavailable through regular courses. In such a case, the student will
work under the direct supervision of a faculty member. The student’s advisor and the program director must approve the independent study.

Degree students are expected to maintain a 3.0 Grade Point Average in their courses. After a minimum of 24 hours of course credits and consultation with the advisor, a student is eligible to sit for the examination which is related to the core and to the individual plan of study. *Note:* Students may not enroll in Humanities 680 until they have passed the comprehensive examination.

For further information on the degree program (sample plans of study, comprehensive examination, and independent research options), students should consult the Humanities Program Guide, available from the program director in South Charleston. Because degree students in Humanities have individualized plans of study, they are cautioned to contact the program director when applying for graduate study and to meet regularly with their advisors.

*Note:* Some courses in Art and Design, Classics, Communication Studies, English, History, Journalism and Mass Communications, and Philosophy also may be appropriate for the plan of study in Humanities.

**GRADUATE CERTIFICATES**

**Graduate Certificate in Appalachian Studies**

The Humanities program is home for the Graduate Certificate in Appalachian Studies, a non-degree program of 18 hours composed of foundation courses (CULS 611 and 612), electives to meet specific educational goals, and a capstone research experience (HUMN 680).

For additional information, contact the Humanities Program.

**Admission**

Students may pursue the graduate certificate in Appalachian Studies while enrolled in the Humanities M.A. program OR as a certificate-only student. Students already enrolled in the M.A. degree program should submit to Graduate Admissions a Secondary Program Request form: [www.marshall.edu/graduate/secondary-program-request-form](http://www.marshall.edu/graduate/secondary-program-request-form).

Applicants interested in the certificate-only program should apply for admission to Marshall University as a Certificate/Professional Development student and select on the application form the Certificate in Appalachian Studies. Applicants must have a bachelor’s degree from a regionally accredited institution.

**Graduate Certificate in Women’s Studies**

Scholarly work on women and gender has influenced all levels of academic discourse. For example, one of the most important dimensions of globalization has been the heightened awareness of the importance of women in societal development.

Applicants must have a bachelor’s degree from a regionally accredited institution.

For additional information, contact the Humanities Program.

**LATIN, M.A.**

**Graduate Certificate in Latin**

**Program Description**

The Latin M.A. is a 33-hour degree that consists of twenty-one hours of advanced Latin on the 500 and 600 levels, six hours of related courses taught in English, and six thesis hours.

The program fills significant needs in West Virginia and surrounding states. It will allow current Latin teachers to expand their knowledge base and to strengthen their own programs. It will also contribute to the training new teachers of Latin on the middle and secondary school levels, and will prepare students to enter Ph.D. programs in Classical Philology.

The M.A. in Latin is not designed to replace the M.A.T. in Latin currently offered by Marshall, nor does it guarantee licensing or certification to teach Latin in WV. It will, however, allow teachers certified in other disciplines to add Latin as a content area, and it will provide additional graduate hours for persons that hold professional teaching certification in Latin.

**Admission Requirements**

Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at [www.marshall.edu/graduate/admissions/how-to-apply-for-admission](http://www.marshall.edu/graduate/admissions/how-to-apply-for-admission).

Applicants must also have:

- GRE (Graduate Record Examination) scores sent to Graduate Admissions
- three letters of recommendation sent to Graduate Admissions
- appropriate prerequisites for upper-level Latin courses, which minimally consist of the completion of at least six semesters of Latin, at least two of which were taken at the 300 level or above.
Program Requirements

The M.A. degree will consist of twenty-one hours of advanced Latin on the 500 and 600 levels, of which LAT 640 and 660 are required, six hours of related courses taught in English, of which CL 620 is required, and six thesis hours. NOTE: at least 16 hours must be at the 600 level.

- From the Latin courses, students will be required to take:
  - LAT 640 Advanced Latin Prose Composition
  - LAT 660 Special Author in Latin Literature
  and will select 15 hours from the other courses.
- From the courses taught in English, students will be required to take:
  - CL 620 Theoretical Approaches to Latin Literature
  and will select 3 hours from the other courses.

Thesis

All students will be required to write an M.A. thesis of approximately 50-70 pages. Topics will be literary, and grounded in cultural contexts and literary critical techniques. They can focus on one author, or on themes or subjects found in more than one author. The research and writing of the thesis will extend over two semesters. In the first, students, working with an advisor, will develop and begin preliminary research on an author. In the second, they will continue their research and complete the actual writing. Students will be encouraged to present their research at national or regional conferences.

Plan of Study

Before registration for the 12th graduate credit hour, all graduate students must complete an official Plan of Study form to be approved by the Graduate Director and/or Department Chair and submitted to the Graduate College Office.

Courses that may be used to fulfill the advanced Latin requirement are:

- LAT 503 Roman Comedy
- LAT 504 Roman Elegy: Propertius and Tibullus.
- LAT 505 Readings in Vergil
- LAT 506: Horace: Odes and Epodes
- LAT 507 Livy’s History of Rome
- LAT 509 Roman Satire: Horace, Martial and Juvenal
- LAT 510 Tacitus
- LAT 580-583 Special Topics in Latin Literature.
- LAT 585-588 Independent Study.
- LAT 680-683 Special Topics in Latin Literature.
- LAT 685-688 Independent Study in Latin Literature

Other required courses:

- LAT 640 Advanced Latin Prose Composition.
- LAT 660-665 Special Author in Latin Literature
- CL 620 Theoretical Approaches to Latin Literature.
- LAT 681 Thesis.

Courses that may be used to fulfill the related courses requirement are:

- ART 508 Art of the Ancient World
- CL 535 Greek Civilization
- CL 536 Roman Civilization
- CL 560 Ancient Goddess Religions
- CL 570 Transformations of Myth
- CL 580-583 Special Topics in Greek and Roman Literature
- CL 585-588 Independent Study

GRADUATE CERTIFICATE IN LATIN

The Graduate Certificate in Latin provides a convenient way for individuals to add a consistent study of the Latin language and literature to their undergraduate and graduate credentials. Currently, all credits can be used toward teacher certification and toward the M.A.T. at Marshall.
Degree Programs and Requirements

Admission Requirements

Students already enrolled in the Latin M.A. program should submit to Graduate Admissions a Secondary Program Request form [www.marshall.edu/graduate/secondary-program-request-form](http://www.marshall.edu/graduate/secondary-program-request-form).

Prospective certificate-only students should apply for admission to Marshall University as a Professional Development student and select on the application form the Certificate in Latin.

Program Requirements

The program requires 15 hours, 12 of which consist of 500-level Latin courses, and 3 of which consist of CL 536, Roman Civilization.

PHILOSOPHY MINOR

The minor in philosophy consists of any two 500-level courses in Philosophy.

POLITICAL SCIENCE, M.A.

Program Description

The Department of Political Science is committed to those items enumerated in the mission statements of Marshall University and its College of Liberal Arts. First and foremost, the Department of Political Science strives to prepare future leaders by providing undergraduate and graduate students with a quality liberal arts political science education. This education includes critical thinking skills, problem solving skills, research skills, language/communication skills, and development of students’ intellectual capabilities. The Department of Political Science is committed to (1) applied and basic research; (2) leadership and public service to the community; and (3) developing insight into multicultural and global issues.

Admission Requirements

Applicants should follow the admissions process outlined in the Graduate Catalog or at the Graduate College website at [www.marshall.edu/graduate/admissions/how-to-apply-for-admission](http://www.marshall.edu/graduate/admissions/how-to-apply-for-admission). Although applicants will be considered according to university application deadlines, the program strongly recommends that students plan to start in the Fall semester if they wish to complete the degree within four semesters.

To apply, students must submit the following items directly to Graduate Admissions:

- An application for admission (and pay the appropriate application fee);
- Official bachelor’s degree transcript; applicants must have completed 12 hours of undergraduate social science coursework and have an undergraduate Grade Point Average (GPA) of 3.0 or higher on a 4.0 scale;
- Graduate Record Examination (GRE) General Test or GRE Revised General Test, no older than five years at time of application (requirement may be waived if applicant has an undergraduate Grade Point Average (GPA) of 3.3 or higher on a 4.0 scale, and/or holds an advanced post-graduate degree from a regionally accredited college/university);
- TOEFL scores (if relevant);
- A personal statement (1-2 page essay discussing the applicant’s interest in political science and how the M.A. degree will benefit him or her);
- Two letters of recommendation that discuss the applicant’s abilities (college instructors strongly preferred).

Conditional Admission

The Political Science program may admit applicants conditionally, for one term, pending receipt of final official undergraduate transcripts (and GRE scores if their current undergraduate GPA is above 3.3)

Provisional Admission

The Political Science program may admit applicants provisionally, for one term, who have an undergraduate GPA between 2.50 and 2.99 on a 4.0 scale.

Degree Requirements

Students must complete 36 hours of credit, which includes nine thesis hours.

Required Core Curriculum and Suggested Sequence (15 Hrs.)

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSC 600</td>
<td>Research Design (3 hrs.)</td>
<td>First Semester</td>
</tr>
<tr>
<td>PSC 604</td>
<td>Data Analysis (3 hrs.)</td>
<td>Second Semester</td>
</tr>
</tbody>
</table>
Electives (21 Hrs.)
These electives must be selected with approval of the Director of Graduate Studies and may be a mixture of any 5XX and 6XX political science courses.
A minimum of six elective hours must be seminars from the following list: PSC 606, 609, 611, 612, 614, 622, 629, 648, 650-1, 652, 660, 675 (may count for a maximum of three hours toward this requirement), and others with the approval of the Director of Graduate Studies.
A maximum of six elective hours from graduate courses taken outside of the political science department may be counted toward the degree with the approval of the Director of Graduate Studies.

Thesis
The written thesis (and subsequent oral defense) serves as the culminating project for the M.A. degree in Political Science.
In cooperation with the Director of Graduate Studies, a student should form a thesis committee. The thesis committee assists in selecting and developing the research problem and evaluates the student's work on that problem. The student should also determine the graduate faculty member of the department who will serve as chair of the student's thesis committee.
Students will develop a written thesis prospectus, approved by their thesis committee, in PSC 680. The remaining thesis credit hours (PSC 681) will usually be taken in the subsequent semester. In addition to writing the thesis, all students must pass an oral defense.

Advising
Each new graduate student must meet with the Director of Graduate Studies before his or her first semester as a graduate student. Continued advising throughout a student’s tenure at Marshall University is strongly encouraged.

Plan of Study
A Plan of Study approved by the Director of Graduate Studies and the Graduate Dean must be filed in the Graduate College office before the student registers for the 12th semester hour.

Two-C Rule
A student who earns more than two grades of C or lower in any graduate courses may be withdrawn from the program.

Accelerated Master’s Degree
An Accelerated Master’s Degree is available for qualified undergraduate political science majors. See the Accelerated Master’s Degree section in this catalog for details.

PSYCHOLOGY, M.A.
Areas of Emphasis
Clinical Psychology
School Psychology
Graduate Certificate in Clinical Psychology (post master’s)
Graduate Certificate in Behavioral Statistics

Program Description
The M.A. program requires a minimum of 36 graduate credit hours, though students may complete significantly more, depending upon their objectives. A common “core” of 24 credits (see below) is required of all students. The remaining hours are selected in consultation with an advisor to help meet students’ academic and professional goals.
For both educational and ethical reasons, it is important that students obtain education and training that is consistent with their career goals. For example, students who intend to work in applied fields of psychology (e.g., clinical, counseling, school, industrial/organizational) should pursue and complete programs of study that prepare them with the skills,
knowledge and supervised experience needed to develop competence in that field; this process is consistent with the APA ethical requirement that psychologists restrict their professional work to areas in which they have developed and maintained competence.

Prospective students in our M.A. program should recognize that the general M.A. program is NOT in itself a clinical training program; students who plan to do clinical work should apply for and complete the entire Graduate Certificate in Clinical Psychology sequence (described in a separate section below), which is designed to prepare graduates for entry-level clinical positions.

**Admission Requirements**

**Deadlines:**

- Application for admission to the Psychology M.A. will be received throughout the year and acted on within one week of receipt by the program.

All applicants should follow the admissions process described in the Graduate Catalog, or at the Graduate Admissions website at [www.marshall.edu/graduate/admissions/how-to-apply-for-admission](http://www.marshall.edu/graduate/admissions/how-to-apply-for-admission). (Submit all materials to the Graduate Admissions Office.)

Applicants must also have:

- an undergraduate Grade Point Average (GPA) of 3.0 or higher on a 4.0 scale for all previously completed undergraduate university work;
- Graduate Record Exam (General Test) scores no lower than 400 on either the Verbal or Quantitative sections, and a minimum total of 900 on those two sections;
- Completion of the following prerequisite courses: Elementary or Introductory Statistics, Experimental Psychology or Research Methods; Abnormal Psychology; Learning, Social Psychology and Developmental Psychology.

**PROVISIONAL STATUS:** Students may be admitted to the psychology master’s program with “Provisional” status if either the GRE admission criterion OR the GPA criterion is met. (Students who do not meet either criterion are not eligible for admission to the program.) Provisionally admitted students will be fully admitted to the program when they have completed 12 hours of classes (which must include PSY 517 and 506) from the core courses listed below with no grade being below a B. A student who earns a C or lower in any of the listed core classes during the period of provisional status will not be permitted to take further graduate hours within the psychology department.

Students granted provisional admission status must take:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>PSY 517</td>
<td>Statistics</td>
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<td>PSY 506</td>
<td>Psychometrics</td>
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And two of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>PSY 674</td>
<td>Biological Bases of Behavior</td>
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<tr>
<td>PSY 672</td>
<td>Cognitive Psychology</td>
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<tr>
<td>PSY 606</td>
<td>Advanced Social Psychology OR</td>
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<tr>
<td>PSY 503</td>
<td>Applied Social Psychology</td>
</tr>
<tr>
<td>PSY 615</td>
<td>Advanced Developmental Psychology OR</td>
</tr>
<tr>
<td>PSY 617</td>
<td>Applied Developmental Psychology</td>
</tr>
</tbody>
</table>

No student may take more than 18 hours in the psychology department nor take any courses in the clinical concentration without receiving full admission to the department.

Provisional students will be assigned an advisor who must approve all course registrations. Provisional students will have a departmental hold placed on their registration to assure advisor approval and compliance with this policy. This hold will be permanently removed upon full admittance.

Students who meet the undergraduate GPA and GRE test score requirements but who are missing no more than two of the required undergraduate prerequisite classes listed above may also be granted provisional admission status. They will then be able to take some graduate classes with the approval of their advisors while completing the prerequisites. However, they may only enroll in graduate classes for which they have taken the prerequisite as an undergraduate. For example, a student who has not had elementary statistics cannot enroll in Intermediate Statistics (PSY 517); a student without an undergraduate social psychology course cannot take Advanced Social Psychology, etc.

Students granted provisional admission status because of missing course prerequisites will be fully admitted to the program upon successful completion of the missing prerequisites and of any graduate courses taken during the provisional period.
Program Requirements

General Requirements

The M.A. program requires a minimum of 36 graduate credit hours, though students may complete significantly more, depending upon their objectives. A common “core” of 24 credits (see below) is required of all students. The remaining hours are selected in consultation with an advisor to help meet students’ academic and professional goals. The Clinical Psychology area of emphasis (see below) requires a minimum of 26 specified credits beyond the core.

2-C Rule

Master's-level coursework and doctoral coursework are viewed separately in terms of this policy. In essence, a student may only receive one (1) grade of C per degree program (M.A., post-M.A. within Psy.D.) In the event of the second C the student will be dismissed from the program.

Having one (1) grade of C or lower in any particular program (i.e., General M.A., clinical certificate, Clinical M.A., or Psy.D.) will not disqualify the student completing the degree program successfully. After receiving the first C grade the student must meet with his/her advisor and the professor of that particular course in order to identify and address issues/behaviors of concern. A form will be signed by the student, professor, and advisor. If the student is enrolled in one of the designated clinical courses listed in the subsequent section, the course must be repeated but the grade of C or lower will still stand on the record as a first obtained C. In other words, the grade cannot be replaced. If the student completes the remaining master’s-level coursework without a second grade of C or lower, s/he will begin the post-M.A. coursework with a “clean slate.”

NOTE: For the purposes of clarification, if a student is enrolled in a terminal master’s program, all coursework required for completion of the degree is considered master’s-level coursework. Students who are admitted to the Psy.D. program but have not completed an M.A. or M.S. in psychology prior to admission will have all coursework completed within the first 56 hours considered as master’s-level coursework. Students who enter the Psy.D. program with a completed master’s degree will have the coursework used to complete the master’s degree at the prior institution considered as master’s-level coursework.

Consequences of a second C in terminal master’s in psychology programs or certificate programs: If a student receives a second grade of C or lower prior to completing the master’s-level coursework, s/he will be dismissed from the master’s program. If a student has completed a master’s program in psychology and has a grade of C or lower in required psychology coursework, and then applies for admission to the Clinical Emphasis certificate program, the grade of C or lower earned in the master’s program will count as the first C. As noted previously, if the C was earned in designated clinical coursework, the course must be re-taken.

Consequences of a second C in the Psy.D. program: If the student is enrolled in the Psy.D. program and receives a second grade of C or lower in master’s-level coursework (see definition above), s/he will be dismissed from both the psychology master’s and Psy.D. program and will not be allowed to complete the master’s degree. If the student completes the master’s level coursework without an additional grade of C or lower, and that student is enrolled in the Psy.D. program, s/he will be allowed to move on to the post-M.A. portion of the Psy.D. program with a “clean slate.” The post-M.A. portion of the Psy.D. program is defined as all hours taken after the 56th hour that are required for the completion of the Psy.D. program.

Once admitted to the post-M.A. portion of the program, a student who earns a grade of C or lower will be required to meet with his/her advisor and the professor of the course in which the grade was earned to discuss issues of concern. If the course is one of the designated clinical courses listed in the subsequent section, the student will be required to repeat the course. A second grade of C or lower in the post-M.A. portion of the program will result in dismissal from the doctoral program without the awarding of the Psy.D. degree.

Ethics and Student Behavior

Students in all programs are expected to behave in accordance with the APA Ethical Principles and Code of Conduct. Consequences for violations may include suspension or dismissal from the student’s program of study. When students in the clinical area of emphasis (M.A. program) exhibit behavior indicating inability or limited capacity to successfully perform clinical roles and functions, they may be suspended or dismissed from their program of study.

Plan of Study

Before registration for the 12th graduate credit hour, all graduate students must complete an official Plan of Study form to be approved by the Graduate Director and/or Department Chair and submitted for approval to the Graduate College Office.

Comprehensive Evaluation

A written comprehensive examination is required of all students in the M.A. program. Details about the exam are available from advisors and the program coordinator. In addition, students in the Clinical Psychology certificate program must, as part of their clinical internship, complete a comprehensive evaluation based on identified clinical competencies.

Thesis Option

Students have the option of completing a research thesis. The department has established a set of criteria and procedures for doing a thesis; these are available from advisors. These may be good choices for students intending to continue their
education in research-oriented Ph.D. programs. This issue should be carefully discussed with the advisor. Up to 6 credits of PSY 681 (Thesis) may be included as “additional coursework” discussed below.

Curriculum

Core Requirements

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 517</td>
<td>Intermediate Behavioral Statistics</td>
<td>(NOTE: if PSY 417 or its equivalent was completed with a B or better as an undergraduate, an additional statistics course must be substituted, in consultation with the student’s advisor.)</td>
</tr>
<tr>
<td>PSY 674</td>
<td>Biological Bases of Behavior</td>
<td>()</td>
</tr>
<tr>
<td>PSY 672</td>
<td>Cognitive and Emotional Bases of Behavior</td>
<td>()</td>
</tr>
<tr>
<td>PSY 606</td>
<td>Advanced Social Psychology OR</td>
<td></td>
</tr>
<tr>
<td>PSY 503</td>
<td>Applied Social Psychology</td>
<td>(NOTE: if either course or its equivalent was completed with a B or better as an undergraduate, the student must take the other course at the graduate level.)</td>
</tr>
<tr>
<td>PSY 615</td>
<td>Advanced Developmental Psychology OR</td>
<td></td>
</tr>
<tr>
<td>PSY 617</td>
<td>Applied Developmental Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 506</td>
<td>Psychometrics</td>
<td>(NOTE: If PSY 406 or its equivalent was completed with a B or better as an undergraduate, an acceptable alternative must be substituted, in consultation with the student’s advisor.)</td>
</tr>
<tr>
<td>PSY 605</td>
<td>Ethical and Legal Issues in Psychology</td>
<td>()</td>
</tr>
<tr>
<td>PSY 692</td>
<td>M.A. Research Seminar</td>
<td></td>
</tr>
</tbody>
</table>

Total: 24 credits

Additional Coursework

A minimum of 12 additional credit hours are to be selected in consultation with the advisor. With the advisor’s approval, courses from other departments that are consistent with the student’s academic and career goals may be included in the required 12 additional credits. Students may, and often do, take more than 36 credit hours as part of their degree programs; in preparing their plans of study, students should carefully discuss their academic and career goals with their advisors and other faculty members.

Minor in Psychology

A minor in psychology is earned by successfully completing at least 6 credit hours at the 500- or 600-level in Psychology as approved by the student’s advisor and the Psychology Department Chair.

Area of Emphasis in Clinical Psychology

The Clinical Psychology area of emphasis consists of 26 credit hours of clinical coursework and supervised clinical experience beyond the required department core. (Note: These 26 credits will meet the requirements for 12 additional credits as noted above in Additional Coursework.) It is designed to prepare graduates for master’s degree level clinical roles within professional psychology.

Admissions

Students are admitted to the Clinical Psychology Area of Emphasis M.A. once per year with applications open from December 31 through March 15. Admissions requirements are the same as for the Psychology M.A. program.

Any student who is already fully admitted to the Psychology M.A. may submit a letter of interest to the Clinical Area coordinator to be considered for admission to the Clinical Psychology Area of Emphasis. More information and application materials are available from advisors and from the coordinator.

Required Courses

Those marked with * are restricted to students in the clinical track. Students in the M.A. clinical area of emphasis must take their specialty track courses in Huntington. It is important to note that students in the clinical area of emphasis must complete the entire track to receive any letters of support or other indication from individual faculty members, the department or the university that the student has achieved appropriate competence in the skills or knowledge bases associated with master’s level clinical training, and such students must complete the entire sequence for the Clinical Psychology Area of Emphasis to appear on their transcripts.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 731</td>
<td>Psychotherapy I</td>
</tr>
</tbody>
</table>
Area of Emphasis in School Psychology

The School Psychology area of emphasis consists of 36 hours. It is designed to prepare students for entry into the School Psychology Education Specialist (Ed.S.) program. Any student who is fully admitted to the Psychology M.A. School Psychology area of emphasis may apply to the Ed.S. program in School Psychology in the spring semester of his/her first year.

The following courses are required for the School Psychology area of emphasis. Most of these courses are offered on the South Charleston campus.

Curriculum: M.A. in Psychology with an area of emphasis in School Psychology

Core Requirements
- PSY 674 Biological Bases of Behavior OR SPSY 674 Biological Bases of School Psychology
- PSY 623 Experimental Design
- PSY 526 Cross-Cultural Psychology
- PSY 615 Advanced Developmental Psychology OR SPSY 616 Typical & Atypical Child Development
- PSY 605 Ethical, Legal, and Professional Issues in Psychology
- PSY 506 Psychometrics OR SPSY 621 Data-Based Decision Making I
- PSY 692 Research Seminar

Area of Emphasis Requirements
- SPSY 601 Professional Competence I: Schools
- SPSY 617 Indirect Service Delivery I: School Consultation
- SPSY 618 Direct Service Delivery I: Instruction Methods and Behavior Modification
- SPSY 619 Direct Service Delivery I: Individual and Group Counseling OR
- PSY 619 Psychotherapy with Children

Total: 36 credits

Clinical Psychology Post-Master’s Certificate

The Clinical Psychology certificate consists of 26 credit hours of clinical coursework and supervised clinical experience. It is designed to prepare graduates for master’s degree level clinical roles within professional psychology. More information and application materials are available from advisors and from the Clinical area coordinator.

Admission

Students are admitted to the Clinical Psychology Area of Emphasis Post-Master’s Certificate program once per year with applications open from December 31 through March 15. Completion of a master’s degree is required for full admission to this program.

Slots in the Clinical Psychology Certificate Program are limited. The most qualified applicants will be accepted until the slots have been filled. Grade Point Averages (undergraduate and graduate) and GRE scores will be considered.
Required Courses

The courses listed below are required for the Clinical Psychology certificate. Those marked with * are restricted to students in the clinical certificate program. Students in the clinical certificate program must take their specialty track courses in Huntington. It is important to note that students in the clinical area of emphasis must complete the entire track to receive any letters of support or other indication from individual faculty members, the department or the university that the student has achieved appropriate competence in the skills or knowledge bases associated with master’s level clinical training, and such students must complete the entire sequence for the Clinical Psychology Area of Emphasis to appear on their transcripts.

Curriculum

Required:

PSY 608 Diagnosis and Treatment Planning
PSY 633 Individual Psychotherapy and Interviewing*
PSY 610 Assessment of Adults*
PSY 611 Assessment of Children*
PSY 620 Adult Assessment Practicum*
PSY 621 Child Assessment Practicum*
PSY 634 Group Therapy*
PSY 670 Clinical Practicum*
PSY 680 Clinical Internship*
PSY 731 Psychotherapy*
PSY 732 Psychotherapy II*

Electives:

PSY 619 Psychotherapy with Children (3 cr.) *
PSY 630 Adult Diagnosis and Therapy (3 cr.)*
PSY 635 Child and Family Diagnosis and Therapy (3 cr.)*
PSY 671 Clinical Practicum II (3 cr.)*

Two-C Rule and Student Behavior

The following two statements are applicable to all psychology graduate programs:

1. 2-C Rule: Psychology students cannot be admitted to, or continue in, a graduate program in psychology if they earn more than one grade of C or lower in any graduate course in psychology or any course included in the plan of study. Such students will not be permitted to continue taking courses or to work on a thesis. Please see the complete description of the 2-C Rule on the second page of the M.A. in Psychology section.

2. Ethics and Student Behavior: Students in all programs are expected to behave in accordance with the APA Ethical Principles and Code of Conduct. Consequences for violations may include suspension or dismissal from the student’s program of study. When students in the clinical area of emphasis (M.A. program) or the Psy.D. program exhibit behavior indicating inability or limited capacity to successfully perform clinical roles and functions, they may be suspended or dismissed from their program of study.

Graduate Certificate in Behavioral Statistics

Psychology and behavioral research are based, in part, upon the assumption of an orderly analysis of empirical data. Within psychology, behavioral statistics offer the foundation for discovery and advancement of the profession and provide the support for the demonstrability of treatment programs and other forms of psychological intervention.

The Graduate Certificate in Behavioral Statistics offers a comprehensive array of statistical tools and analyses that will enable those who complete the certificate both private and public sector opportunity. The certificate represents a balance between the large sample parametric statistics of experimental design [ANOVA] and regression and the areas of non-parametric and small or single subject design.

Certificate holders will be able to create, design, and implement real-world statistical paradigms.

Employers will benefit from the breadth of the program in the graduates’ ability to apply behavioral statistical paradigms to their knowledge base.
Admissions

Applicants interested in the certificate-only program should apply for admission to Marshall University as a Certificate/Professional Development student and select on the application form the Certificate in Behavioral Statistics. The Admissions requirements for the certificate program is the same as for the M.A. program in Psychology.

All credits earned in the Graduate Certificate Program in Behavioral Statistics may be applied to a master’s degree. For example, PSY 517 is a current requirement for the master’s degree in Psychology. Other credits earned in the behavioral statistics program may be applied in part to the elective hours required for the M.A. degree in Psychology.

Requirements: 12 hours

- PSY 517, Intermediate Behavioral Statistics .......................................................... 3 hours
- PSY 623, Experimental Design ............................................................................... 3 hours
- PSY 624, Multivariate Analysis ............................................................................... 3 hours
- And one of the following:
  - PSY 651, Advanced Nonparametric Statistics ..................................................... 3 hours
  - PSY 654, Single Subject Analysis ......................................................................... 3 hours

Accelerated Master’s Degree in Psychology

An Accelerated Master’s Degree is available for qualified undergraduate psychology majors. See the Accelerated Master’s Degree section in this catalog for details.

DOCTOR OF PSYCHOLOGY, PSY.D.

Clinical Psychology (Psy.D.) Program Mission

The primary mission of the Clinical Psychology (Psy.D.) Program at Marshall University is to train doctoral-level psychologists who are highly skilled generalists. Training within the program will foster an appreciation for the importance of critical inquiry at all levels of clinical practice. There is a specific emphasis on developing a sensitivity to the needs of rural and underserved people. The Psy.D. program is accredited by the American Psychological Association.

Model and Goals

The philosophy of the program follows a practitioner-scholar model of education and training; consequently, graduates of the program are trained as practitioners of clinical psychology as an empirically informed field. Education and training within the program emphasize the importance of critical inquiry at all levels of clinical practice, including treatment planning for individual clients, assessment of program outcomes, and the design and execution of rigorous research. The program is dedicated to educating students for professional practice careers. The program faculty has set forth several pertinent goals and objectives to be obtained by students during their time in the program. These goals and objectives are founded on the core competencies of clinical education and training stated by the National Council of Schools in Professional Psychology (NCSPP).

The program exposes students to the following primary clinical orientations: integrative, behavioral, cognitive behavioral, and psychodynamic. In the context of this exposure, we encourage each student to develop an orientation that is best suited to his or her style and situation. We endeavor to support students in their development, whether they prefer to remain eclectic or choose to invest in a particular theoretical orientation. The fact that the faculty represents a variety of orientations fits well with this model. Although the perspectives of clinical faculty vary, they share a common mission to provide education and training that is solidly grounded empirically. We also emphasize that multiple systemic and individual factors must be considered in developing a cooperative relationship between client and therapist that will ultimately lead to more positive life experiences for the client. There is a sharp focus on the impacts of community and culture from a biopsychosocial model of influence on human development. As such, the generalist orientation of the program serves as a model to students that the field of clinical psychology is as diverse as the human population it serves.

Education and Training Goals and Objectives

1. The primary goal of the program is to provide high quality graduate education and training in clinical psychology with an emphasis on the role of empirical knowledge as it pertains to clinical practice. As such, students will develop the specific competencies that are the foundation of the education and training model developed by NCSPP.

   Objective 1.1: Relationship competence: Students are expected to develop the ability to form productive partnerships with clients, peers, supervisors, faculty, and community members.

   Objective 1.2: Assessment competence: Students are expected to develop competency in clinical assessment as evidenced by knowledge of basic psychometric theory and sound test administration and interpretation skills. In addition, students
should be able to demonstrate the use of sound assessment methodologies that allow them to describe their client, to plan a course of intervention, and to assess intervention outcomes.

**Objective 1.3:** Intervention competence: Students are expected to demonstrate the ability to form a coherent, theoretically based, empirically-supported treatment plan that is refined during the course of intervention.

**Objective 1.4:** Research and evaluation competence: Students must demonstrate the ability to conceptualize as appropriate a logical research question, frame it in terms of an operational definition, and develop a sound method for addressing the question. Students must be able to execute the plan and analyze the quantitative and/or qualitative data in a rigorous and systematic manner.

**Objective 1.5:** Consultation and education competence: A rural behavioral health practitioner may often find that the most important function s/he can serve is as a consultant within existing systems. Students will demonstrate competence in distinguishing various types of consultation from direct intervention.

**Objective 1.6:** Management and supervision competence: Students will become knowledgeable in the areas of organization and supervision of psychological services. Students will demonstrate this knowledge in their ability to provide formal and information supervision to less experienced students. They will also demonstrate this knowledge in their ability to function professionally in at least two different agency settings.

**Objective 1.7:** Legal and Ethical competence: Students are expected to understand and abide by the APA Code of Ethics in all professional and academic settings.

**Objective 1.8:** Cultural/Diversity competence: Students will understand the significant impact cultural differences have on clinical practice and be able to articulate those impacts in reference to specific clinical cases. Students will be able to identify cultural differences in an academic sense and demonstrate through program planning and service delivery that the differences are appreciated.

2. The second goal is to ensure that the clinical training of students is thoroughly grounded in the broad scientific areas of psychology.

**Objective 2.1:** Students will demonstrate knowledge in the following broad areas of scientific psychology: biological aspects of behavior; cognitive and affective aspects of behavior; social aspects of behavior; history and systems of psychology; psychological measurement; research methodology; and techniques of data analysis;

**Objective 2.2:** Students will demonstrate knowledge in the following scientific, methodological, and theoretical areas of psychology: individual differences in behavior, human development, dysfunctional behavior and analysis, and professional standards of ethics.

3. Rural areas are characterized by unique needs that are not often met by service delivery models and therapeutic modalities developed primarily in urban settings. Therefore, a third goal is to promote an understanding regarding the impact of rural culture on clinical practice.

**Objective 3.1:** Students will develop an understanding of the diverse forces at work in rural areas that can and do impact various aspects of human development and community functioning.

**Objective 3.2:** Students will be able to articulate alternative service delivery models that may improve access and use of behavioral health services in rural areas.

**Objective 3.3:** Students will be encouraged to seek internships in settings that serve rural populations.

4. Finally, the program seeks to nurture in students the spirit of lifelong learning. In the service of this goal, the faculty strives to create an atmosphere of inquiry in which students are encouraged to utilize a variety of means to answer complex questions related to human nature.

**Objective 4.1:** Faculty and students will regularly engage in formal and informal discussions of current literature and pertinent research issues.

**Objective 4.2:** Faculty and students will be encouraged to regularly attend conferences and workshops that promote critical thinking regarding issues pertinent to the broad field of psychology.

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**Program Goals and Objectives**

1. The primary program goal is to enhance the scope and quality of services available in rural areas by increasing the likelihood that doctoral students graduating the program will choose to work in rural and underserved regions, particularly those regions in West Virginia.

**Objective 1.1:** As research has shown that students who are native to rural areas and who train there are more likely to return to those areas to practice, the department has determined that a minimum of 50% of the slots be reserved within the program for residents of West Virginia and the surrounding region. The department anticipates offering the remaining slots to individuals from a broad range of geographic regions and all interested individuals are strongly encouraged to apply.

**Objective 1.2:** Quality practicum placements are cultivated in rural settings to allow students to be trained in alternative service delivery models.

2. The second program goal is to promote an understanding of the impact(s) of rural culture, particularly Appalachian culture, on human behavior and behavioral health needs.
Applying to the Psy.D. Program

Prerequisite Coursework. Applicants must have completed a minimum of 18 undergraduate semester hours of psychology, including statistics, experimental psychology or research methods, and abnormal psychology in order to be considered for admission. Please note that some courses may have undergraduate prerequisite coursework attached to them. While these undergraduate courses are not required for admission, they must be taken prior to a student's enrollment in those courses with such prerequisites.

Application Deadline and Materials. Students are admitted to the Psy.D. program once per year for classes starting in the Fall semester. Applicants are required to submit the completed application form with all requested supplemental materials, official transcripts from degree-granting institutions, official transcripts of all previous graduate coursework, official report of the Graduate Record Examination (GRE) General Test (scores may not be more than five (5) years old), and three letters of recommendation. Completed applications along with all supporting materials must be received by the December 1 deadline to be considered for admission the following fall. It should be noted that the application process is competitive. It is recommended that scores on the Verbal section not be lower than 150 (revised scoring beginning in Fall 2011) or 450 (previous scoring system prior to Fall 2011) and scores on the Quantitative section not be lower than 141 (Revised scoring beginning in Fall 2011) or 450 (previous scoring system prior to Fall 2011). Likewise, it is recommended that applications have a minimum combined total on those two sections of 297 (revised scoring beginning in Fall 2011) or 1,000 (previous scoring system prior to Fall 2011). Grade point averages for successful candidates typically range from 3.2 to 3.6. Application materials and current program information can be obtained by contacting the Marshall University Psychology Department, the Marshall University Graduate College Admissions office, or by consulting the Psychology Department website at marshall.edu/psych.

Applicant review process. Applicants are divided into two groups as follows:

1. Post-B.A.: This track is designed for students who either possess no graduate degree or whose graduate degree is in an area other than psychology. Students who have completed some graduate work towards a master’s degree in psychology but will not have completed the degree prior to admission to the Psy.D. program would also be a part of this track. Students accepted into this track are expected to enroll as full-time students throughout the program. A student accepted through this track may earn a master’s degree in general psychology as he or she makes successful progress toward the Psy.D.

2. Advanced Standing: A student who already has a master’s degree in psychology can apply for advanced standing in the Psy.D. program. In order to apply for advanced standing, a student must have completed a master’s degree in psychology from a regionally accredited institution. Students who are admitted with advanced standing must select to enter in either a full-time track or a part-time track by the end of their first semester of enrollment. These tracks are described below:

   Full-time track: Students who apply for advanced standing and the full-time track must be able to document coursework and practicum equivalencies equal to approximately 36 hours of coursework required in the Psy.D. program at Marshall University. Review of equivalencies is described in the next section. Students in the full-time track must commit to a minimum of 9 hours of coursework and practica per semester during the entire time of their enrollment. They must also commit to taking summer coursework as needed. As such, these students can anticipate completing the program in approximately four years. This would assume 5-6 semesters of coursework and a full year for the pre-doctoral internship. Students admitted to the full-time track can apply to change to the part-time track if their circumstances warrant such a change. Although students with extenuating circumstances may drop below full-time for a given semester without changing tracks, they should recognize that this change may impact the time it will take to complete the program. Students in this track desiring to attend part time for more than one semester may be required to switch formally to the part-time track.

   Part-time track: Students who apply for advanced standing and the part-time track are not required to document equivalencies at any particular level, although they must still possess a master’s degree in psychology from an accredited institution. Students in the part-time track may enroll either full-time or part-time in any given semester with the exception of the residency year, described in the next section. During the residency year, full-time enrollment is required. Students in this track should anticipate completing the program in no fewer than 5 years and no more than 7 years from the date of enrollment.

Vertical Team Practica: Practica in the program are arranged according to vertical teams. Each team is lead by a clinical faculty member who is a licensed psychologist. Teams are organized around a particular orientation to clinical conceptualization and treatment planning. Teams include students at all levels of training and allow newer students to be exposed to practica in which they may be placed as they progress through the program. Vertical team arrangements also allow more experienced students to become mentors to more junior students.

(continued)
Comprehensive Evaluation Process: All students admitted to the program must complete the portfolio evaluation review as part of the comprehensive evaluation process. In addition, students who are admitted without a master’s degree will take a written comprehensive prior to being awarded the master’s degree.

Doctoral Research Project: All students are required to complete a doctoral research project prior to receiving their Psy.D. degree. Details of the doctoral research process are discussed in the Psy.D. Student Handbook.

Internship Requirement: All students are required to complete a one year, full time (or two year, half time) internship in clinical psychology at an approved internship training site. There are a very limited number of local approved sites and students should anticipate the possibility of relocation during this portion of the training period. Please contact the Psy.D. program coordinator for additional information concerning this requirement.

Residency Requirement: All students are required to enroll as full time students for a one year “residency” period. For most students, this will be the 4th year, when students focus on their doctoral research and their rural practicum placements.

Rural Practicum Placement: A key component of our program is training in and supervised delivery of psychological services in rural settings. All students will spend at least one academic year (two sequential full semesters) placed in an approved rural training site. This placement will require driving to the site and may require an overnight stay each week. More information about this part of the program is available from the Psy.D. Program Director and/or the Practicum Coordinator.

Scheduling of Coursework: Courses are offered during Fall, Spring and Summer terms, with most courses offered no more than once per year. Students must plan to take courses during each term to make appropriate progress through the curriculum.

Other information about program (e.g. comprehensive exams, specific procedures for requesting evaluation of prior graduate coursework, graduate assistantships and other student funding opportunities; the doctoral program fee charged to students each semester of enrollment) is available from the psychology department; please contact the Psy.D. Program Coordinator.

Accreditation

Marshall University’s Psy.D. is fully accredited by the American Psychological Association. In addition, Marshall University is accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools (30 North LaSalle Street, Suite 2400, Chicago, IL 60602-2504). The Psy.D. program has also been recognized as a designated program by the National Register/Association of State and Provincial Boards of Professional Psychology. The Psy.D. program is also a member of the Association of Psychology Postdoctoral and Internship Centers (APPIC).

Course Requirements

Following are the courses required for the Psy.D. program. A curriculum by year can be found by visiting the website at www.marshall.edu/psych.

I. Foundational Psychotherapy

   PSY  633  Individual Interviewing & Psychotherapy

II. Foundational Assessment

   PSY  706  Integrated Assessment I
   PSY  707  Integrated Assessment I Practicum
   PSY  708  Integrated Assessment II
   PSY  709  Integrated Assessment II Practicum

   Optional:
   PSY  710  Advanced Assessment

III Biological Bases of Behavior

   PSY  674  Biological Bases of Behavior
   PSY  618  Psychopharmacology
   PSY  750  Behavioral Health Psychology

IV. Cognitive and Affective Aspects of Behavior

   PSY  672  Cognitive and Emotional Bases of Behavior

V. History and Systems of Behavior

   PSY  560  History and Systems of Psychology
VI. Research Methodology and Data Analysis

PSY 723 Clinical Research Methods
PSY 799 Doctoral Research (6 or more cr.)

Choose one of the following:
PSY 717 Advanced Quantitative Methods
EDF 625 Qualitative Research in Education

VII. Human Development and Individual Differences

PSY 615 Advanced Developmental Psychology
PSY 712 Geropsychology
PSY 764 Human Sexuality and Dysfunction

VII. Psychopathology

PSY 608 Differential Diagnosis and Treatment Planning

IX. Professional Standards and Ethics

PSY 605 Ethics, Legal, and Professional Issues

X. Social Aspects of Behavior

PSY 606 Advanced Social Psychology

Note: PSY 606 carries a prerequisite of having taken an undergraduate course in Social Psychology. This prerequisite must be fulfilled before taking PSY 606 as a program requirement.

XI. Cultural and Individual Diversity

PSY 752 Rural/Community Psychology I
PSY 726 Cross-Cultural Psychology

XII. Advanced Psychotherapy

PSY 635 Child and Family Therapy
PSY 731 Psychotherapy I
PSY 732 Psychotherapy II
PSY 733 Psychotherapy III
PSY 755 Rural/Community Psychology II
PSY 634 Group Therapy

XIII. Consultation and Supervision

PSY 753 Supervision in Clinical Psychology

XIV. Clinical Practica

PSY 670 Practicum I
PSY 671 Practicum II
PSY 769 Practicum in Clinical Psychology
PSY 713 Advanced Assessment Practicum
PSY 714 Advanced Assessment Practicum
PSY 770 Advanced Practicum in Clinical Psychology
PSY 771 Advanced Practicum in Clinical Psychology
PSY 772 Rural Practicum I
PSY 773 Rural Practicum II

XV. Internship

PSY 780-783 Pre-Doctoral Internship (3-9 cr.)

XVI. Clinical Seminar

PSY 790-796 Clinical Seminars (3 cr. each/2 required)

(continued)
XVII. Teaching Experience (Optional)

PSY 600 Teaching Seminar

The following two statements are applicable to all psychology graduate programs:

1. **2-C Rule:** Psychology students cannot be admitted to, or continue in, a graduate program in psychology if they earn more than one grade of “C” or lower in any graduate course in psychology or any course included in the plan of study. Such students will not be permitted to continue taking courses or to work on a doctoral research project. Please see the complete description of the 2-C Rule on the second page of the M.A. in Psychology section.

2. **Ethics and Student Behavior:** Students in all programs are expected to behave in accordance with the APA Ethical Principles and Code of Conduct. Consequences for violations may include suspension or dismissal from the student’s program of study. When students in the clinical area of emphasis (M.A. program) or the Psy.D. program exhibit behavior indicating inability or limited capacity to successfully perform clinical roles and functions, they may be suspended or dismissed from their program of study.

**Education/Training Outcomes for the Psy.D. Program**

In keeping with APA Accreditation Guidelines, the following information is provided to permit students considering application to the Psy.D. program to make an informed decision.

**Timeframe for Program Completion.** The Psy.D. Program is designed to be a five year, full-time program. On average, students attending the program full time complete the program in that time frame. Those attending half-time include only those students who have completed a master’s degree prior to entry. For these students, average length of completion time is approximately 5.5 years.

**Tuition and fees.** Because tuition and fees are subject to change on an annual basis, students are encouraged to contact the Bursar’s Office at 1-800-438-5389 or the website at www.marshall.edu/bursar to obtain current program costs.

**Internship acceptance rates.** For the academic year 2012-2013, eleven students applied for internship placement with acceptance figures as follows:
- Percent obtaining internships: 100%
- Percent obtaining paid internships: 100%
- Percent obtaining internships at APPIC sites: 90%
- Percent obtaining internships at APA sites: 64%

**Attrition.** At present, the overall attrition rate is 6%.

**Licensure outcomes.** The program claims a licensure rate of 86%.

**PUBLIC ADMINISTRATION, M.P.A.**

The master’s degree in Public Administration will provide graduate training in academic, research and service to prepare students for leadership positions in public service, both in the non-profit and public sectors of society. The graduate curriculum consists of a 36 semester credit hour requirement, including a core of courses required for all students and a specialty area of emphasis. The core consists of 18 semester credit hours designed to train students to lead agencies in areas of budgetary development and management; data collection and analysis; personnel training, and policy development and implementation. All students are required to complete a six credit hour practicum in their specialty area and to submit a portfolio for review at the end of the practicum.

**Admission Requirements**

Applicants should follow the admissions process outlined in the Graduate Catalog or at the Graduate College website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission.

In addition, applicants must have:
- Standardized test scores (GRE, GMAT, or MAT) from exams completed no more than five years prior to the application submission to the program. Recommended minimum scores are: GRE, combined 800 on Verbal and Quantitative, or 286 on current combined score; GMAT, 500; OR MAT, 392. Please note that the MAT can be taken, by appointment, on the South Charleston campus. Standardized test scores are waived for applicants with a graduate degree from an accredited university.
- A current resume or curriculum vitae.
- A personal statement describing the applicant’s interest in the program and goals from program completion.
For non-native English speakers, minimum TOEFL scores of 550 (paper-based exam), 213 (computer-based exam), and 79 (Internet-based exam) are required. TOEFL exam must be completed no more than two years prior to the application submission for the program. Graduates of English speaking universities will have TOEFL requirements waived. Minimum undergraduate GPA scores and standardized test scores will be waived for applicants who have previously earned degrees above the baccalaureate level from accredited institutions.

Program Description

The M.P.A. will consist of a core curriculum to include the following:

- MGT 620 Human Resource Management
- MGT 672 Organizational Behavior
- PSC 533 Public Administration and Policy Development
- PSC 553 Governmental Budgetary Administration
- PSC 604 Data Analysis
- PSC 616 Public Administration Scope and Practice

The program will require students who are not in the professional workforce (pre-service) to complete a six-hour practicum. This can be accomplished through agency placements for internships. Students who are in the professional workforce (in service) will complete a project report analyzing public administration as practiced in their place of employment.

The program will offer concentrations of twelve credit hours in general administration policy, non-profit management, and urban governance.

The M.P.A. program, then, will be composed of the following:

- Core Curriculum ........................................................................................................18 hours
- Concentration ............................................................................................................12 hours
- Practicum or Project Report .....................................................................................6 hours
- TOTAL ...................................................................................................36 hours

Concentrations

General Administration Policy

<table>
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<th>Course</th>
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<tr>
<td>ACC 510</td>
<td>Survey of Accounting</td>
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<td>ECN 550</td>
<td>Public Finance</td>
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<td>FIN 554</td>
<td>Insurance Planning and Risk Management</td>
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<td>LS 532</td>
<td>Human Relations in the Public Sector</td>
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<td>LS 645</td>
<td>Community Relations in the Public Sector</td>
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<td>Leadership in the Public Sector</td>
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<td>MGT 680</td>
<td>Entrepreneurship</td>
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<tr>
<td>PSC 550</td>
<td>Administrative Law</td>
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<tr>
<td>PSC 552</td>
<td>Public Personnel Administration</td>
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<tr>
<td>PSC 618</td>
<td>Seminar in Public Administration</td>
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<tr>
<td>PSC 660</td>
<td>Seminar in Policy Administration</td>
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<tr>
<td>PSC 518</td>
<td>Personnel Psychology</td>
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<tr>
<td>PSY 520</td>
<td>Industrial/Organizational Psychology</td>
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<tr>
<td>SOC 523</td>
<td>Sociology of Class, Power and Conflict</td>
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<tr>
<td>SOC 533</td>
<td>Sociology of Work</td>
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Non-Profit Management

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<tr>
<th>Course</th>
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<tr>
<td>ECN 550</td>
<td>Public Finance</td>
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<tr>
<td>FIN 554</td>
<td>Insurance Planning and Risk Management</td>
</tr>
<tr>
<td>GEO 511</td>
<td>Medical Geography</td>
</tr>
<tr>
<td>GEO 516</td>
<td>Environmental Issues in Planning¹</td>
</tr>
<tr>
<td>LS 532</td>
<td>Human Relations in the Public Sector</td>
</tr>
<tr>
<td>LS 645</td>
<td>Community Relations in the Public Sector</td>
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<tr>
<td>LS 615</td>
<td>Leadership in the Public Sector</td>
</tr>
<tr>
<td>PSC 532</td>
<td>Nonprofit Management</td>
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<tr>
<td>PSC 542</td>
<td>Politics and Welfare</td>
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</tbody>
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(continued)
PSC 561 Urban Problems and Public Policy
PSC 660 Seminar in Policy Administration
PSY 520 Industrial/Organizational Psychology
SOC 501 Population and Human Ecology
SOC 523 Social Class, Power and Conflict
SOC 525 Race and Ethnicity
SOC 528 Medical Sociology
SOC 640 Problems and Prospects for an Aging Society

Urban Governance
ECN 515 Regional Economics
ECN 560 Economic Development
FIN 554 Urban Insurance Planning and Risk Management
GEO 510 Urban Geography
GEO 514 Principles and Methods of Planning
GEO 515 Urban Land Use Planning
GEO 516 Environmental Issues in Planning
GEO 526 Principles of GIS
GEO 529 Intermediate GIS - Vector Analysis
GEO 530 Intermediate GIS - Raster Analysis
GEO 531 Principles of Remote Sensing and Programming
LS 615 Leadership in the Public Sector
LS 645 Community Relations in the Public Sector
PSC 561 Urban Problems and Public Policy
PSC 621 Urban Administration
PSY 520 Industrial/Organizational Psychology
SOC 501 Population and Human Ecology
SOC 523 Social Class, Power and Conflict
SOC 533 Sociology of Work
SOC 542 Urban Sociology

1 GEO 514, Principles and Methods of Planning, is a prerequisite for this course.
2 GEO 526, Principles of GIS, is a prerequisite for this course.

SOCIOLOGY, M.A.
Area of Emphasis
Anthropology
Minor in Anthropology
Minor in Sociology
Accelerated Master’s Degree in Sociology

Program Orientation
The Department of Sociology and Anthropology at Marshall University offers a supportive environment for students who wish to pursue advanced training in sociology or anthropology as well as those for whom the Master’s level is the final degree. The curriculum is designed to provide our students with a wide range of options in pursuit of their academic and professional goals and interests, while also providing solid training in core foundational aspects of the two disciplines. Students learn both qualitative and quantitative research methods and are exposed to a variety of subfields and theoretical perspectives. Faculty core strengths include: theory, social movements and social change, inequality, stratification, deviance, cultural diversity, social interaction and group processes, world systems/globalization, social institutions (religion, family, work and occupations, health care, politics and the economy), criminology, gerontology, qualitative and quantitative research methods, and advanced statistical analysis.
Admission Requirements

Interested students may seek admission to the program for full-time or part-time studies, with preferred entrance in the fall semester of each year. To receive full consideration all application materials must be received by the Graduate Admissions Office by April 15 for the Fall semester and by November 15 for the Spring semester. Students should plan to take the GRE as early in the year as possible. Applicants should follow the admission process outlined in the Graduate Catalog or at the Graduate College website at [www.marshall.edu/graduate/admissions/how-to-apply-for-admission](http://www.marshall.edu/graduate/admissions/how-to-apply-for-admission).

In addition to the materials described in the Catalog and on the Web site, applicants for regular admission to the Master of Arts in Sociology must submit to the Graduate Admissions Office:

- A personal statement describing interests in the program and future plans;
- Standardized test scores (GRE);
- International students must provide evidence of English language proficiency such as the TOEFL;
- Evidence of a minimum of 12 credit hours of undergraduate sociology coursework;
- Undergraduate grade point average (GPA), overall and in sociology;
- A writing sample: a copy of one paper (10-25 pages) from an undergraduate course, preferably a sociology or anthropology course; and
- Two letters of recommendation from persons familiar with the applicant’s academic or professional competence.

Admission to the program is offered to a limited number of qualified students demonstrating academic excellence and professional promise. Applicants who have submitted a complete application, who fulfill the requirements stated above, and who have achieved a combined GRE score of 651, or the equivalent measure of the new GREs implemented fall 2011, will be considered for Full Admission. Students who do not fulfill all requirements stated above (including the minimum GRE score) may be considered for admission on a provisional or conditional basis. (See definitions of Provisional and Conditional admission in this catalog).

Requirements

In addition to regular courses and seminars, students are expected to contribute to their professional growth through interaction with the faculty and other graduate students as well as from independent study and reading. A student must earn at least a 3.0 GPA in all Sociology and Anthropology classes as a requirement for graduation. A student who receives a second grade of C or below while pursuing the MA in Sociology must review her/his academic plans with the department’s Director of Graduate Programs; this review may result in the student being dismissed from the program.

The Sociology Master of Arts degree requires the completion of 33 hours of coursework plus SOC 681 thesis hours for the Thesis Option, or completion of 36 hours of coursework plus SOC 679 for the Non-Thesis Option. The curriculum is structured around a set of core requirements and a set of disciplinary focus areas that together provide a strong foundation in sociological theory, research methods and data analysis. At least half of the minimum required hours for the student’s master’s degree must be earned in classes numbered 600 or above. Students, in consultation with their advisor, must complete an official “Plan of Study” during their first semester or before completion of 12 credit hours. The Plan of Study must be approved by the Director of Graduate Programs in the department before submission for approval to the Office of the Graduate College. All students must successfully pass comprehensive exams to demonstrate broad comprehension and synthesis of sociology (and, in case the Anthropology Area of Emphasis is chosen, also anthropology); the comprehensive exam will be in conjunction with the defense of the thesis for students choosing that option or will be an examination in an appropriate form after the approval of a problem report.

Core Requirements

All students are required to complete 15 hours of core courses:

- SOC 600 Classical Sociological Theory
- SOC 601 Contemporary Sociological Theory
- SOC 605 Qualitative Research Methods and Analysis
- SOC 606 Quantitative Research Methods and Analysis
- SOC 609 Professional Development

SOC 605 and SOC 606 is a two-course research methods sequence that should be completed by all students during the first academic year in the graduate program if possible (or within the first 12 graduate credit hours for part-time students). Exceptions are made for students who must take prerequisite courses before enrolling in this sequence.

Electives (18 hours for thesis option and 21 hours for non-thesis option; for the specific requirements for the Anthropology Area of Emphasis see following section)

The department offers a variety of electives which are bundled in four disciplinary focus areas and an area of emphasis in anthropology. Graduate level courses from other departments may be taken with approval from the Director of Graduate Studies and the course instructor.

(continued)
To guarantee breadth of education, courses from more than one focus area have to be taken. Note that some classes contribute to more than one focus area; a student can count such classes in more than one focus area for this requirement, but must of course still meet the requirement for the total number of credit hours.

To guarantee depth, students also have to take more courses of a particular focus area, declare a minor, or opt for the area of emphasis in anthropology as described below:

**Breadth:**
Non-thesis option: One course from each focus area 1 thru 4 (12 hrs.)
Thesis option: Thesis related to one focus, one course from each of the three remaining focus areas (9 hrs.)

**Depth:**
Additional courses from one focus area or a Minor (9 hrs.)

**Focus area 1: Organizations and Institutions**
- SOC 508 The Family
- SOC 533 Sociology of Work
- SOC 550 Sociology of Religion
- SOC 564 Complex Organizations
- SOC 580 Special Topic (dependent on content)
- SOC 668 Seminar (dependent on content)

**Focus area 2: Stratification and diversity**
- SOC 523 Social Class, Power and Conflict
- SOC 525 Race and Ethnicity
- SOC 532 Sociology of Appalachia
- SOC 555 Sociology of Sex and Gender
- SOC 655 Feminist Social Theory
- SOC 580 Special Topic (dependent on content)
- SOC 668 Seminar (dependent on content)

**Focus area 3: Demography, health, and human environments**
- SOC 501 Population and Human Ecology
- SOC 528 Medical Sociology
- SOC 532 Sociology of Appalachia
- SOC 540 Introduction to Sociology of Aging
- SOC 542 Urban Sociology
- SOC 552 Sociology of Death and Dying
- SOC 640 Problems and Prospects for an Aging Society
- SOC 580 Special Topic (dependent on content)
- SOC 668 Seminar (dependent on content)

**Focus area 4: Social problems and collective behavior**
- SOC 513 Social Movements and Social Change
- SOC 520 Criminology
- SOC 535 Juvenile Delinquency
- SOC 560 The Holocaust and Genocide
- SOC 602 Contemporary Social Change
- SOC 620 Criminology
- SOC 640 Problems and Prospects for an Aging Society
- SOC 580 Special Topic (dependent on content)
- SOC 668 Seminar (dependent on content)
Anthropology Area of Emphasis (12 credit hours)

The requirements for the Area of Emphasis include:

ANT  600  Ethnographic Methods
ANT  567  Culture through Ethnography OR
ANT  591  Theory in Ethnology

An additional two classes (6 credit hours) of courses at the 500- or 600-level in Anthropology as approved by the student’s advisor and the Graduate Program Director in the Department of Sociology and Anthropology and included in the Plan of Study mentioned above.

Students who opt for the Anthropology Area of Emphasis have to choose courses from two out of the four sociology focus areas if they write a thesis or from three out of the four sociology focus areas if they write a problem report to comply with the breadth requirements discussed above.

Anthropology Minor

A minor in anthropology is earned by taking at least 6 credit hours in courses at the 500- or 600-level in Anthropology as approved by the student’s advisor and the Graduate Program Director in the Department of Sociology and Anthropology.

Sociology Minor

A minor in sociology is earned by taking at least 6 credit hours in courses at the 500- or 600-level in Sociology as approved by the student’s advisor and the Graduate Program Director in the Department of Sociology and Anthropology.

Accelerated Master’s Degree in Sociology

An Accelerated Master’s Degree is available for qualified undergraduate sociology majors. See the Accelerated Master’s Degree section in this catalog for details.
BIOLOGICAL SCIENCES, M.S., M.A.

Areas of Emphasis
- Organismal, Evolutionary, and Ecological Biology
- Watershed Resource Science

Certificate Program
- Bioinformatics

Program Description
The Department of Biological Sciences at Marshall University offers Master of Science (M.S.) and Master of Arts (M.A.) degrees with a major in Biological Sciences. Students may complete the requirements for a M.S. under a faculty mentor in areas ranging from cellular and molecular to evolutionary and population biology. In addition, two areas of emphasis and a certificate program are available.

The Master of Science (M.S.) degree in Biological Sciences is preparation for further study or employment requiring biology research experience and requires a thesis. An M.S. student must be mentored by a faculty member, so applicants are encouraged (but not required) to contact potential faculty advisors about research projects and graduate assistantships prior to application for admission. Information about faculty may be accessed through the Biological Sciences website (www.marshall.edu/biology).

The Master of Arts (M.A.) degree does not require a thesis and allows students to strengthen their education in Biological Sciences through the completion of advanced coursework.

Admission Requirements
Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission. Application deadlines are April 15 and November 15 for Fall and Spring admissions, respectively.

Applicants should send these materials directly to the Graduate Admissions Office:
- three letters of recommendation from academic or professional references;
- a written statement of educational and professional goals (250-500 words);
- Graduate Record Exam (GRE) scores. Applicants must specify that official test scores are to be sent directly to Marshall University.

Applicant must also have:
- A combination undergraduate GPA of 2.75 on a 4.0 scale for all previously completed undergraduate university work and 1100 GRE score (composite verbal and quantitative test scores, equivalent to an approximate combined score of 302 on the revised GRE test) and an undergraduate GPA in biology courses of 3.0 or higher on a 4.0 scale for all previously completed undergraduate university work.

Graduate Assistantships
Students interested in applying for teaching assistantships must submit a completed Application for Graduate Assistantship by April 15 or November 15 for the Fall or Spring semester, respectively. The Application for Graduate Assistantship Form is available from the Department of Biological Sciences, One John Marshall Drive, Huntington, WV 25755.

Requirement for All Degrees
A Plan of Study approved by the student’s advisor must be submitted for approval to the Graduate College Dean before the student registers for his or her 12th semester hour. The Plan of Study is a student’s “blueprint” for completing graduation requirements. Students must also have a thesis committee (M.S.) or advising committee (M.A.) consisting of no fewer than three faculty (including the student’s advisor) assembled by the end of their first year. Students must meet with their committees at least once within their first year and at least once per semester (excluding the defense) in subsequent years.
M.S. Degree Requirements

- Students must complete at least 32 hours of graduate coursework, including the thesis. The maximum amount of credit that may be earned for the thesis (BSC 681) is 12 hours.
- Candidates for the M.S. degree must register for and participate in six hours of Graduate Seminar (BSC 660 and 661 during their first year and BSC 662 in at least two subsequent semesters) during each of the semesters in which they are actively enrolled in the graduate program and complete at least 18 hours in graded BSC electives at the graduate level (which may include BSC 660, 661, 662, and 681).
- Not more than 6 hours of seminar (BSC 660, 661, 662) may be used to complete the 32-hour requirement.
- Not more than 4 semester hours credit in Independent Study (BSC 585-588) or Special Problems (BSC 650-652) may be used to complete the 32 hour requirement, and these may only be applied beyond the 18 hours in BSC graduate credits.
- Students may elect to take 6 hours of graduate work in a minor field.
- Successful completion of the program in Biological Sciences requires a GPA of 3.0 or higher, and no more than 6 credit hours of “C” grades may be applied to the total hours for graduation. Upon completion of course requirements and the thesis, M.S. candidates must pass a comprehensive oral examination.

M.A. Degree Requirements

- Students who select the M.A. option must complete a minimum of 36 hours of graduate coursework.
- M.A. candidates do not conduct thesis research. The Graduate Seminar, BSC electives, Independent Study/Special Problems, GPA, “C” grades, and comprehensive oral exam requirements are as stated for the M.S. degree.

Area of Emphasis in Organismal, Evolutionary, and Ecological Biology

Organismal, Evolutionary, and Ecological Biology as an area of emphasis in Biological Sciences will provide participating students with a broad background in biology at the level of the individual organism and above. The anatomy, structure, and function of individual species are stressed, as is the comparative natural history and evolutionary relationships of groups of related organisms. Lastly, the roles of organisms in a broader context is studied via the analysis of ecological relationships. The intent of this area of emphasis is to serve students engaged in natural history studies, students engaged in the assessment of environmental impacts on species and communities, and those focusing on the detailed anatomy, structure, and function of individual organisms both recent and fossil. Students choosing this major will be well-prepared to pursue careers or further education in the environmental sciences, environmental mitigation, resource management, and ecological impact assessment. Others choosing this area of emphasis will be prepared for the study of evolutionary biology, biomechanics, and the natural history of groups of organisms ranging from today’s plants to fossil reptiles and mammals.

Degree Requirements for Area of Emphasis

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<tr>
<td>BSC 660 Introductory Graduate Seminar</td>
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<td>BSC 661 Seminar I</td>
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<td>BSC 662 Seminar II</td>
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<tr>
<td>BSC 681 Thesis, up to 12 hrs.</td>
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(If only 9 hours of thesis are taken, select an additional course(s) from the list below.)

Additional Courses from which to select (at least 14 hours for M.S. and 18 hours for M.A.)

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<th>Course</th>
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<tr>
<td>BSC 501 Ichthyology</td>
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<td>BSC 505 Economic Botany</td>
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<td>BSC 506 Herpetology</td>
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<td>BSC 508 Ornithology</td>
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<td>BSC 509 Mammalogy</td>
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<td>BSC 513 Principles of Organic Evolution</td>
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<td>BSC 516 Plant Taxonomy</td>
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<td>BSC 517 Biostatistics</td>
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<td>BSC 524 Animal Parasitology</td>
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<td>BSC 525 Biosystematics</td>
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<td>BSC 526 Medical Entomology</td>
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<td>BSC 530 Plant Ecology</td>
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<td>BSC 560 Conservation Forest Soil Wildlife</td>
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BSC 610 Advanced Vertebrate Morphology  
BSC 620 Taxonomy of Vascular Plants

Additional electives not listed above may be included in a student’s program of study if determined by the advisor to be appropriate to this area of emphasis.

Area of Emphasis in Watershed Resource Science

Watershed Resource Science as an area of emphasis in Biological Sciences will provide participating students with a systematic and integrated approach to the study of water resources as well as the analysis and implementation of the most effective way to assess their quality and manage their use and conservation. In this program, the integration of course offerings in assessment, informatics, and management into traditional and integrated science curricula provides students with the knowledge base necessary to effectively and innovatively assess and manage water resources.

Admissions Requirements for Watershed Resource Science Area of Emphasis

- Must be admitted to the BSC master’s degree program;
- Must have a bachelor’s degree which includes a minimum of 6 courses from the following disciplines: two courses in mathematics (must include 1 semester of calculus and one semester of statistics); two courses in physical science (physics, chemistry, geology, etc.); and two courses in life science (biology, agronomy, microbiology, etc.).

Degree Requirements for Watershed Resource Science Area of Emphasis

- The curriculum of this program is made up of a research component, a core of required courses, and specialization in either environmental assessment, environmental management, or environmental informatics.
- Students choosing the M.S. option must complete 32 hours of coursework including up to six hours of thesis.
- Students choosing a non-thesis option will receive an M.A. degree and must complete 36 hours of credit.
- The M.A. degree also requires completion of a minimum of three hours of independent study credit.
- A minimum of sixteen hours for M.S. and eighteen hours for M.A. degrees must be completed in coursework at the 600 level.
- A successful graduate must complete the research core, which may be a thesis (M.S.) or independent study (M.A.) project, the core of required courses, and courses in a specialization chosen in collaboration with a faculty advisor.

Graduate Certificate Program in Bioinformatics

The Marshall University bioinformatics certificate is designed to develop a working understanding of a variety of techniques and methods for analyzing vast amounts of biological data. The source of information may be associated with recent genomic research, but may also include data sets related to other complex biological problems involving such topics as structure modeling, database mining, and visualization.

The certificate is designed to complement existing degrees and to suit the needs of students and professionals who want to specialize in the fast-expanding field of bioinformatics. The certificate curriculum is interdisciplinary and includes courses from the College of Science, the College of Information Technology and Engineering, and the Joan C. Edwards School of Medicine. Through completion of the certificate, student will have acquired the necessary skills to analyze and interpret the large data sets using various bioinformatics tools.

Students who should apply for the certificate program would be biology, mathematics, chemistry, physics, and medical/biomedical students or medical doctors who desire to acquire skills required to understand bioinformatics methods and technology; computer science students who wish to understand biological concepts that can be analyzed using their programming skills; or health care processonals (medical, pharmaceutical, and agricultural industries) who desire to acquire bioinformatics knowledge relevant to their fields of expertise.

Students will earn the certificate by completing 15 credit hours, including 9 credit hours from 3 core courses, 3 credit hours from a first elective course, and another 3 credit hours from a second elective.

Admissions Requirements

1. Both senior-level undergraduate students with overall GPAs of at least 2.75 and graduate students may enroll in the certificate program.
2. Both undergraduate and graduate students must satisfy the following prerequisite requirement: Successful completion (grade of C or better) of MTH 140 or MTH 229, and one of MTH 225, MTH 326, or MTH 345.
Curriculum

Required courses:
- CS 505 Computing for Bioinformatics
- BSC 550 Molecular Biology
- CS 645 Advanced Topics in Bioinformatics

Elective I (choose one from the following):
- BSC 543 Microbial Genetics
- CS 510 Database Systems.

Elective II (choose one from the following):
- BSC 617 Statistical Techniques for Biomedical Sciences
- MTH 518 Biostatistics
- CS 540 Digital Image Processing
- CS 630 Machine Learning

Total Certificate requirements: 15 credit hours

CHEMISTRY, M.S.

Program Description
The Master's Degree in Chemistry is a two-year program intended primarily for individuals interested in advanced training in chemistry and related disciplines in preparation for doctoral programs or for careers in industry, government, or postsecondary school education. Students are expected to be well grounded in one or more of the program's five areas of specialization: Analytical Chemistry, Biochemistry, Inorganic Chemistry, Organic Chemistry, and Physical Chemistry. The Department of Chemistry currently offers both a thesis and non-thesis option for the Chemistry M.S. degree.

Admission Requirements
Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission.

In addition, applicants must:
- hold an undergraduate degree in Chemistry;
- have GRE (Graduate Record Exam) scores sent to Graduate Admissions.

Program Requirements

General Requirements
Students are required to complete 32 and 36 hours of graduate credit (see below) for the thesis and non-thesis options, respectively. No more than six hours of Special Topics courses may be counted in the minimum hours required by either route; any exceptions require specific departmental approval.

Students following the thesis option will receive up to 12 hours credit for 682 and one hour each for 631 and 632. The remaining 18 hours of graduate credit will come from courses in the various areas of chemistry, chosen in consultation with one's advisor. It is required that at least three of the five areas be represented in the Plan of Study (see below), and it is recommended that all courses pertaining to the area of one's research be included.

Plan of Study: A newly admitted student will take placement examinations the week before the beginning of the first term of study and then should meet with his or her advisor before registering for classes. The student and advisor will develop a Plan of Study or blueprint for graduation requirements. The Plan of Study must be on file in the Graduate College office before the student registers for the 12th semester hour. Programs will be adjusted to reflect major interests and prior training of the student.

Non-Thesis Option
The non-thesis option is a seldom-utilized alternative route available for students currently employed full-time and requires department authorization. Basic requirements are the same as the thesis option; however, it requires 36 hours of graduate credit and a problem report followed by a public lecture. This program organization ensures that all students develop research, writing and public speaking skills regardless of their area of concentration. Due to limitations in course offerings, this option may require more than two years to complete.
Thesis Option

The preferred route requires a thesis with 32 hours of graduate credit, two public lectures, and an oral thesis defense. The Master of Science thesis demonstrates that you are capable of pursuing a program of original and independent research, that you can formulate and carry out a research project, and that you can report on the project in a proper scientific manner. The thesis option prepares students for technical careers in industry, or for further study toward a more advanced degree. This option requires advanced coursework in chemistry, biochemistry, or environmental chemistry and research, with the latter culminating in an M.S. thesis.

Shortly after entering the program students select a faculty advisor based on their research interests and agree on a research problem. Under the guidance of their faculty advisor students carry out the research program, select a graduate research committee and write and defend the thesis in a final oral examination.

The defense of the thesis will take place when the student, the research advisor, and the graduate research committee agree that a defensible copy of the thesis is complete. The thesis examination is graded on a pass/provisional pass/fail basis. To pass the examination, there can be no more than one unsatisfactory grade from the committee members. A student who fails may submit another thesis or a revised version upon approval of the student’s committee. A student may only be re-examined once. A student earning a provisional pass will generally be required to make minor revisions or corrections to the thesis.

CRIMINAL JUSTICE, M.S.
Minor in Criminal Justice
Accelerated Master’s Degree in Criminal Justice

Program Description

The Master of Science degree in Criminal Justice provides students with advanced theoretical, legal, and methodological training for research, teaching, and management careers in criminal justice. The program serves to educate criminal justice professionals and prepare students for further advanced graduate work, legal studies, and scholarship. The Criminal Justice and Criminology program is committed to:

• providing students with the conceptual and research skills needed to undertake advanced analyses of the criminal justice system;
• serving criminal justice professionals and others who are interested in pursuing professional careers in management and administration;
• furnishing law enforcement, corrections and court practitioners with knowledge of justice administration, theoretical perspectives of human behavior, policy analysis and criminal justice theory; and
• preparing social scientists to pursue careers in university and research settings.

Admission Requirements

**Deadlines:** Applications to the program are due by July 1 for the fall semester and by November 1 for the spring semester. However, students are strongly encouraged to apply early. Applications submitted after the due dates will be considered, but no later than three weeks from the start of classes for the fall semester and four weeks for the spring semester. Application for admission does not guarantee acceptance into the program.

Applications should follow the admissions process described in the Graduate Catalog, or at the Graduate Admissions website at [www.marshall.edu/graduate/admissions/how-to-apply-for-admission](http://www.marshall.edu/graduate/admissions/how-to-apply-for-admission). (Submit all materials to the Graduate Admissions Office.)

Applicants must also have:

• a baccalaureate degree from a regionally accredited college or university (preference will be given to applicants with undergraduate majors in criminal justice or closely related social science discipline);
• an undergraduate Grade Point Average (GPA) of 3.0 or higher on a 4.0 scale for all previously completed undergraduate university work;
• GRE scores (will be evaluated in combination with the undergraduate GPA);
• a score of 550 or higher on the TOEFL (for international students only);
• a C or better in an undergraduate research methods course or equivalent (documentation of course content may be required);
• two letters of recommendation (college instructors strongly preferred); and
• a personal statement (1-2 page essay regarding the student’s interest in criminal justice and how the M.S. in Criminal Justice degree will benefit him or her).
Students may be considered for provisional admission or conditional enrollment. Please see www.marshall.edu/graduate/admissions/types-of-admission. All prospective students are strongly encouraged to contact the Criminal Justice Graduate Director before applying to the Master of Science in Criminal Justice program to discuss the application process and requirements.

**Assistantships and Financial Support**

The Criminal Justice and Criminology program has funds available in the form of assistantships to provide financial support for graduate students. For complete information on graduate assistantships please see www.marshall.edu/graduate-graduate-assistantships-2/graduate-assistantship-overview. For complete information on other financial support opportunities please see www.marshall.edu/graduate under the “Costs and Aid” tab.

**Program Requirements**

**General Requirements**

The Master of Science degree in Criminal Justice requires the completion of 30 credits of coursework. In total, students take 15 credits of core courses, 12 credits of electives, and can choose the thesis (3 credits) or non-thesis (3 credits) option. The curriculum is structured around a set of core requirements that provide a broad foundation in criminological theory, research and statistics, criminal law as well as aspects of criminal justice policy and practice.

**Core Requirements**

All students are required to complete 15 credits of core courses:

- CJ 601 Seminar in Criminal Justice
- CJ 604 Advanced Theory in Criminal Justice
- CJ 621 Advanced Criminal Law and Procedure
- CJ 655 Research Methods in Criminal Justice
- CJ 656 Applied Statistics in Criminal Justice

The research methods and statistics sequence must be completed by all students during the first academic year in the graduate program (within the first 12 graduate credits for part-time students). Exceptions are made for students who must take prerequisite courses before enrolling in this sequence.

**Electives**

Students can choose from a variety of electives. A total of 12 hours of electives are required. Courses outside of the discipline in related fields may be taken with approval from the Graduate Director.

**Non-Thesis Option (3 credits)**

For students who work in the field or anticipate a career in the criminal justice system. The requirements are:

- Complete the core courses and register for CJ 699: Capstone Experience (3 credits).
- Design and execute an applied research project related to a current issue or problem faced by a criminal justice organization.
- Demonstrate written abilities and oral presentation skills, which is part of the student’s comprehensive assessment.
- Pass the capstone project with a B or higher.

**Thesis Option (3 credits)**

This option is for students planning to continue graduate studies in a doctoral program. The requirements are:

- Complete the core courses and register for CJ 679: Problem Report (3 credits), which can count as an elective.
- Form a thesis committee and determine the graduate faculty member of the department who will serve as chair of the committee. The thesis committee assists in selecting and developing the research problem and evaluates the student’s work.
- Create the prospectus and have it approved by the thesis committee prior to enrolling for CJ 681: Thesis.
- Pass an oral defense of the thesis.

**Plan of Study**

Before registration for the 12th graduate credit hour, all graduate students must complete an official Plan of Study form to be approved by the Graduate Director and/or Department Chair and submitted for approval to the Graduate College Office.

**Two-C Rule**

A student who earns more than two grades of C or lower in any graduate courses will be withdrawn from the program.
Minor in Criminal Justice

Graduate students from any program, with permission of the student’s graduate advisor and the graduate director of the Criminal Justice and Criminology program can choose a graduate minor in Criminal Justice by taking six credit hours from the following list:

- CJ 504 Theoretical Criminology
- CJ 506 Race, Ethnicity, Gender, & Crime
- CJ 510 Police Administration
- CJ 526 Civil Liability Issues in Criminal Justice
- CJ 533 Correctional Administration
- CJ 601 Seminar in Criminal Justice
- CJ 620 Criminology

Special topics courses appropriate for the minor are also frequently offered.

Accelerated Master’s Degree in Criminal Justice

An Accelerated Master’s Degree is available for qualified undergraduate criminal justice majors. Please note that AMD applicants must have a 3.30 overall undergraduate GPA as well as a 3.50 GPA in the major for admission into the AMD program in Criminal Justice. AMD applicants who meet these GPA requirements are exempt from submitting GRE scores for formal admission to the program, but must comply with all other admission standards. See the Accelerated Master’s Degree section in this catalog for details.

FORENSIC SCIENCE, M.S.

Areas of Emphasis

- Crime Scene Investigation
- Digital Forensics
- DNA Analysis
- Forensic Chemistry

Graduate Certificate in Digital Forensics

The FEPAC-accredited Master of Science degree in Forensic Science is a broad-science-based, five-consecutive semester curriculum. While all forensic science students are required to complete a research project, both thesis and non-thesis options are available.

Thesis Option: The thesis option stresses a research component where students conduct original research and prepare, as well as defend, a written thesis based on their investigative findings. The thesis option requires a minimum of FSC 685 (3 credit hours) and FSC 681 (3 credit hours) in addition to the general Core Curriculum and a minimum of one Area of Emphasis. The thesis option often requires 1-2 additional semesters to complete. The students’ research committee consists of a minimum of three working professionals or faculty skilled in the art with at least one external to the academic program. The students’ thesis defense and presentation is in addition to the research project and associated activities described for the non-thesis option.

Non-Thesis Option: The research project associated with the non-thesis option is required of all forensic science students. Students electing the non-thesis option are required to successfully complete an applied research project during their summer internship which requires a research paper, as well as formal slide-based and poster presentations to be presented at regional or local meetings. The committee composition for the non-thesis option is similar to the thesis option.

Core Curriculum

The core curriculum is required of all forensic science students to provide broad-based education and experience. The core curriculum includes:

- FSC 604 Genetics and DNA Technologies
- FSC 606 Crime Scene and Death Investigation
- FSC 612 Forensic Microscopy
- FSC 618 Forensic Comparative Sciences
- FSC 622 Forensic Analytical Chemistry
- FSC 623 Forensic Analytical Chemistry Lab
Areas of Emphasis

The Forensic Science Program offers four areas of emphasis that students may complete to enhance the core curriculum. The student is required to complete at least one area of emphasis but may complete up to four within the five-semester course of study. Completing multiple areas of emphasis is contingent on maintaining good academic standing while enrolled in the program. Students may choose from the following four Areas of Emphasis:

Crime Scene Investigation

The Crime Scene Investigation emphasis provides students with the tools and hands-on experience to excel and become leaders in their field. The Forensic Science program has its own Crime Scene House that allows students to obtain real-world experience and training through the completion of mock crime scene exercises. Upon completion of this emphasis, students qualify to sit for the International Association for Identification Basic Student Knowledge in Crime Scene Examination. In addition to the core curriculum, this area of emphasis includes:

- FSC 607 Bloodstain Pattern Analysis
- FSC 615 Adv. Crime Scene Investigation
- FSC 617 Adv. Crime Scene Photography & Documentation

Total Emphasis requirements .............................................. 9 hrs.
Total including Core requirements ........................................ 47 hrs.

Digital Forensics

Computers and other digital devices hold a wealth of information including text, digital images, audio and video, which can serve as key evidence for solving crimes. Forensic software programs can be used to image digital storage media and the images can be analyzed using a variety of investigative software programs. Mobile phone forensics is an area that is emphasized in the forensic science courses, as well as investigation of computers and gaming devices. The opportunity to participate in hands-on experiences with investigative tools allows students to participate in mock investigations in preparation for careers in this exciting discipline. For the Digital Forensics area of emphasis, the student must complete the following courses in addition to the core curriculum:

- FSC 605 Forensic Digital Imaging
- FSC 609 Network Forensics
- FSC 634 Digital Evidence Search and Seizure
- FSC 676 Advanced Digital Evidence Detection & Recovery

Total emphasis requirements .................................................. 11
Total including core requirements ........................................... 49

DNA Analysis

The Marshall University Forensic Science Center is home to the academic program as well as a service-oriented DNA laboratory. This lab also serves as a Combined DNA Index System (CODIS) for West Virginia. MU DNA Lab facility and staff serve as instructors and supervisors for various DNA-based courses while providing select students with real-world experience, training, and exposure to the inner workings of a Forensic DNA Laboratory. The DNA emphasis exceeds the DNA Advisory Board standards by requiring a total of 12 graduate-level credit hours addressing the DNA guidelines. For the Forensic DNA Analysis area of emphasis, the student must complete the following courses in addition to the core curriculum:

- FSC 600 Cell and Molecular Biology OR
- BSC 550 Molecular Biology
- FSC 603 Genetics and DNA Technologies Lab
- FSC 627 Human Genetics
FSC 629 Advanced DNA Technologies

Total emphasis requirements* .................................................. 8 hrs.
Total including core requirements ........................................ 46 hrs.

*Students considering a career in Forensic DNA Analysis are encouraged to enroll in FSC 650, Crime Laboratory Technical Assistance (Fall, 2 credits; and Spring, 2 credits).

Forensic Chemistry

Students pursuing careers in forensic drug analysis, toxicology, and trace evidence will benefit from the completion of the Forensic Chemistry emphasis. As some agencies may require 30 or more hours of chemistry coursework, the Forensic Chemistry emphasis provides additional education and hands-on training to meet these federal and state guidelines. This emphasis requires the completion of the following chemistry related courses in addition to the core curriculum:

FSC 608 Forensic Toxicology
FSC 626 Chemical Analysis of Trace Evidence
FSC 628 Advanced Drug Analysis

Total emphasis requirements ................................................... 7 hrs.
Total including core requirements ......................................... 45 hrs.

Other Requirements

In the third term, students are required to complete an approved research-based internship in a crime laboratory or other approved facility. In the fifth term, students are expected to pass a written, comprehensive examination.

FORENSIC SCIENCE ADMISSION POLICY

Entrance into the Forensic Science Program is restricted to the fall semester only. Applicant materials should be submitted by March 1 to have the best chance for admission for the fall term. The program observes a rolling application policy so that individuals may apply at any time. Applicants are considered after the deadline if openings are available in the program. Students who apply by or before March 1 have a better chance of admission than those who apply after March 1; however, it is not uncommon for applicants to be notified throughout the year.

The complete application process includes:

1. Submission of the Marshall University Graduate College Application available online at www.marshall.edu/graduate.
2. Completion of a Free Application for Federal Student Aid (FAFSA) as soon after January 1 as possible at www.fafsa.ed.gov.
3. Submission of formal transcript(s) documenting that the applicant has:
   a) Completed a bachelor’s degree in a forensic or natural science, computer science, computer electronic or electrical engineering, information systems or information technology (or its equivalent coursework in a relevant field) from an accredited institution of higher learning.
   b) Achieved an overall Grade Point Average of 3.0 or better.
   c) Completed 1 academic year of biology and its associated labs with no grade of less than a C.
   d) Completed 1 academic year of general chemistry and its associated labs with no grade of less than C.
   e) Completed 1 academic year of organic chemistry and its associated labs with no grade of less than C.
   f) Completed 1 academic year of physics and its associated labs with no grade of less than C.
   g) It should be noted that successful completion of an undergraduate course in biochemistry is recommended, but not required, prior to entry into this program.
4. Graduate Record Exam (GRE) Applicants should achieve a score of 150 or higher on the verbal and quantitative sections and a score of 3.5 or higher on the analytical writing section.
5. Formal Letters
   a) Applicant’s personal statement providing reasons why he or she should be admitted to the Forensic Science program.
   b) 3 letters of recommendation on formal letterhead from individuals familiar with applicants’ moral character, academic acumen and aptitude, integrity, and work ethic.

Qualified applicants may be awarded a “Conditional Admission” for one semester to satisfactorily complete select admission requirements.

Full admission to the program, once an offer is made, is also contingent on successful completion of a background check, documentation of hepatitis B vaccination/titer or formal declination of vaccination, and receipt of other documentation required for enrollment.
GRADUATE CERTIFICATE IN DIGITAL FORENSICS

The Graduate Certificate in Digital Forensics is designed to provide students with knowledge and skills for the identification, collection, preservation, and examination of various types of digital evidence, including basic and in-depth knowledge and skills in digital forensic analysis policy and procedure, forensic analysis tools and techniques, data recovery, and investigation, as well as quality assurance, legal, and ethical considerations important to this rapidly changing field. This graduate certificate program does not assume, nor does it require, that the applicant have any experience in the field of digital forensics as the course sequence includes instruction ranging from fundamentals to advanced topics. Successful completion of this Graduate Certificate requires that the student:

1. Maintain a cumulative Grade Point Average (GPA) of 3.0 or better in 5 required courses, e.g., FSC 632, FSC 634, FSC 605, FSC 609, FSC 676, with no grade of C or less.
2. Successfully pass a comprehensive examination which spans these subject areas.

Admission Requirements

1. Applicants seeking admission to the Graduate Certificate in Digital Forensics program, without admission to the M.S. Forensic Science degree program, should apply to the Marshall University Graduate College as a Certificate/Professional Development student. Students will be admitted on a competitive basis for fall semester admissions only. Review of applicants will begin March 1 of each year but applicants may be admitted any time prior to the fall enrollment deadline. As a limited enrollment program, student will be admitted on a space available basis.
2. Regarding Digital Forensics, those students enrolled in the M.S. in Forensic Science degree program may choose to complete the M.S. Forensic Science with a Graduate Certificate in Digital Forensics OR the M.S. Forensic Science with an Emphasis in Digital Forensics. Those electing to pursue the Graduate Certificate in Digital Forensics must complete a “Graduate Admissions Secondary Program Request” form at www.marshall.edu/graduate/secondary-program-request-form.
3. Applicants must submit official undergraduate transcripts to the Marshall University Graduate Admissions Office verifying that the applicant has a bachelor’s degree from an accredited institution of higher learning and a cumulative Grade Point Average (GPA) of 3.0 or higher.
4. Applicants must submit their Graduate Record Examination (GRE) scores to the Graduate Admissions Office.
5. Applicants must submit 2 letters of recommendation to the Graduate Admissions Office, on formal letterhead from individuals familiar with the applicant’s academic record and moral character. These letters must be signed and dated.
6. Applicants must submit a “Personal Statement/Statement of Purpose” to the Graduate Admissions Office, written, signed, and dated by the applicant, explaining why the applicant believes he/she should be admitted to the program.
7. Applicants must successfully complete a background check to gain entrance to this program. The procedure for undergoing a background check will be provided once the applicant demonstrates he or she has met all other admissions criteria. International students who have resided in the United States longer than 30 days are required to have a U.S. criminal background check as an admission requirement. As international students have a background check as part of their visa application, international students who have resided in the United States for fewer than 30 days are exempt from undergoing a U.S. background check.

Employment

Applicants must be aware that background checks similar to those required for law enforcement officers are likely to be a condition of employment (Reference: NIJ Report NCJ 203099 - “Qualifications for a Career in Forensic Science.” pp. 7-10) in the field of Digital Forensics.

Curriculum

Fall Semester-

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSC 632</td>
<td>Foundations &amp; Fundamentals of Digital Evidence</td>
</tr>
<tr>
<td>FSC 609</td>
<td>Network Forensics</td>
</tr>
<tr>
<td></td>
<td>Total - 6 credits</td>
</tr>
</tbody>
</table>

Spring Semester-

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSC 634</td>
<td>Search &amp; Seizure of Digital Evidence</td>
</tr>
<tr>
<td>FSC 605</td>
<td>Forensic Digital Imaging</td>
</tr>
<tr>
<td>FSC 676</td>
<td>Advanced Digital Evidence Detection &amp; Recovery</td>
</tr>
<tr>
<td></td>
<td>Total - 8 credits</td>
</tr>
</tbody>
</table>

Fees

The Forensic Science Fee is a special fee designed to support the Forensic Science Program, which cannot be waived.
MATHEMATICS, M.A.

Area of Emphasis in Statistics
Minor in Mathematics

Program Description

The Master of Arts degree in Mathematics is offered by the Department of Mathematics. This is a two-year program designed to prepare students for positions in industry, government agencies, or business; for further graduate study at the doctoral level, and for teaching positions at the secondary or two year college level.

NOTE: An area of emphasis in mathematics, Math through Algebra I, is offered by the M.A. degree programs in Elementary Education and Secondary Education. These programs, which are offered through the College of Education and Professional Development, are intended to meet the needs of public school teachers (K-12).

Area of Emphasis in Statistics

An area of emphasis in statistics is offered in the Department of Mathematics. The curriculum for the Master of Arts in Mathematics with an Area of Emphasis in Statistics prepares students with a solid background in both theoretical and applied statistics for positions in industry, government agencies, or business; for further graduate study at the doctoral level, and for teaching positions at the secondary or two-year college level. (See degree requirements that follow.)

Admission Requirements

Applicants to the Mathematics program must follow the admissions process described in the Graduate Catalog, or at the Graduate Admissions website at www.marshall.edu/graduate. International applicants should also consult the Office of International Admissions and review the website www.marshall.edu/admissions/international.

In addition:

- Applicants must have a Grade Point Average of at least 2.5 on a scale of 4 from the bachelor’s degree granting institution. International applicants should contact the Office of International Admissions to inquire about possible substitute documentation.
- Applicants may optionally report scores from the Graduate Record Examination. Applicants who choose to send scores should send them directly to the Graduate Admissions office. GRE scores are required for applications for the mathematics Graduate Assistantship; see below.

Deadlines. To ensure full consideration for admission, domestic applicants must ensure that their application materials are received by the Graduate Admissions office no later than August 1 for admission in the fall, and no later than December 1 for admission in the spring. International applicants must ensure that their application materials are received by the Graduate Admissions office no later than June 15, for admission in the fall, and no later than October 15, for admission in the spring. Applicants who apply for a Graduate Assistantship should follow the earlier dates set below in the section Timeframe for Awarding Graduate Assistantships.

Conditional Admission. The Mathematics program may admit applicants conditionally, for one term, pending receipt of required credentials. Applicants whose transcripts do not show coursework equivalent to a bachelor’s degree in mathematics may be admitted conditionally and required to take additional foundational courses, which may include undergraduate courses. Applicants who are conditionally admitted are not eligible to receive a Graduate Assistantship, but become eligible when fully admitted.

Provisional Admission. The Mathematics program may admit applicants provisionally, for one term, when the undergraduate Grade Point Average does not meet the requirement for admission.

For more information on the types of admissions, please see www.marshall.edu/graduate/admissions/types-of-admission.

Mathematics Graduate Assistantships and Financial Support

The department offers a limited number of Graduate Assistantships. An applicant wishing to be considered for a Graduate Assistantship must submit a separate application form to the Mathematics Department Assistant Chair for Graduate Studies. This form can be obtained from the Assistant Chair for Graduate Studies or from the Department of Mathematics website at www.marshall.edu/math/graduate.

For complete information on graduate assistantships and other financial support opportunities, please see the Graduate College website at www.marshall.edu/graduate.

Additional requirements for Graduate Assistant applications:

- The applicant should arrange for no more than three letters of recommendation supporting the application. Letters may be sent by email or by postal mail directly by the referees to the Assistant Chair for Graduate Studies, Department of Mathematics, One John Marshall Drive, Huntington WV 25755.
• The applicant must also submit a personal statement not more than two pages in length. This statement should describe the applicant’s background, motivation for studying mathematics, future plans, and any other topics relevant to the applicant’s qualifications for a Graduate Assistantship.

• Applicants for a Graduate Assistantship must also apply for admission to the Mathematics degree program and send General Record Examination scores to the Graduate Admissions office. A Graduate Assistantship application cannot be considered until the application for admission to the degree program is complete.

• A minimum Grade Point Average of at least 2.75 on a scale of 4 from the bachelor’s degree granting institution is required.

**Timeframe for Awarding Graduate Assistantships.** Offers for Graduate Assistantships will be made beginning after May 15, for admission the following fall, and November 15, for admission the following spring. Applicants should ensure their materials are received before these dates to ensure full consideration. Applications received after these dates will be considered until all available Graduate Assistantships are filled.

**Degree Requirements**

A Plan of Study approved by the department/program and the graduate dean must be filed in the Graduate College office before the student registers for the 12th semester hour. For graduation, a student is required to pass at least 36 approved credit hours, of which 18 credit hours must be at the 600 level. These 18 credit hours may include Special Topics, not more than 3 credit hours of Thesis (for students taking the thesis option), but not Independent Study. Students must pass or be exempted from each of MTH 528 - Advanced Calculus II, MTH 546 - Probability and Statistics II, and MTH 552 - Modern Algebra II. Students may choose either to write and defend an acceptable thesis or pass a comprehensive oral examination. Hours from MTH 589 - Graduate Mathematics Seminar do not count toward graduation.

The specific coursework requirements for the program are:

- 18 credit hours of 600-level courses, including not more than 3 credit hours of Thesis but excluding Independent Study.
- 18 additional credit hours at the 500 level or higher, which will include MTH 528, 546, and 552 unless exempted. These additional credit hours may also include an optional 6 credit hours at the 500 level or higher from another department at Marshall offering a graduate program as a minor.

**Area of Emphasis in Statistics:** To be awarded the M.A. in mathematics with statistics as an area of emphasis, the student must satisfy the graduation requirements specified above for the M.A. degree in the Department of Mathematics. In addition to passing or exemption from MTH 528, MTH 546, and MTH 552, students must take and pass MTH 661 and MTH 662, neither of which may be taken as Independent Study. Students must take at least 12 credit hours of mathematics courses at the 500 level or higher, not including probability and statistics courses. A student may choose to write and defend an acceptable thesis in the area of probability or statistics, or pass a comprehensive oral examination. A student choosing to write a thesis must take no fewer than 15 credit hours not including Thesis and Independent Study in probability or statistics courses. A student opting for the comprehensive oral examination must take no fewer than 18 credit hours not including Independent Study in probability or statistics courses.

**Comprehensive Oral Exam:** With the approval of the Assistant Chair for Graduate Studies, the student will select three graduate courses at the 600 level demonstrating a depth of knowledge in those areas of mathematics. For a student pursuing an area of emphasis in statistics, at least two of the courses must be chosen from the probability and statistics courses. The student will select, with the approval of the Assistant Chair for Graduate Studies, a committee consisting of three faculty members. The chairman of the Oral Examination Committee must have the level of Graduate Faculty Status as determined by the Graduate College.

**Minor in Mathematics**

The Department of Mathematics also offers a graduate minor in mathematics. A minor is earned by taking at least 6 credit hours in MTH-designated courses at the 500- or 600- level in Mathematics as approved by the student’s advisor and the Assistant Chair for Graduate Studies in the Department of Mathematics.
Physics and Physical Science
Minor in Geobiophysical Science

The Master of Science in Physical and Applied Science, offered in cooperation with the Departments of Chemistry, Geology, Integrated Science and Technology, and Mathematics, is intended to provide the opportunity for students with diverse qualifications to improve the depth and breadth of their knowledge in the Physical Sciences.

The degree offered is a M.S. in Physical and Applied Science, with an Area of Emphasis in one of the following: Chemistry, Geobiophysical Modeling, Geology, Mathematics, Physics.

The area of emphasis in Geobiophysical Modeling is interdisciplinary, with core courses in Remote Sensing and GIS Modeling. Thereafter, students may choose from areas of concentration in Aquatic, Terrestrial or Biophysical Systems and Models.

Admission Requirements
Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission.

In addition:

a. The applicant must have an undergraduate Grade Point Average (GPA) of 3.0 or higher on a 4.0 scale in their major;

b. Applicants with a GPA between 2.5 and 3.0 in their major may be provisionally admitted to the Geology emphasis program with the unanimous approval of the Geology faculty;

c. Applicants who do not meet Marshall’s requirements for a B.S. in Geology may be required to take additional courses (as determined by the Geology faculty), in addition to graduate coursework, to provide an adequate foundation in the area of emphasis. The foundation courses may be undergraduate courses.

Degree Requirements
A Plan of Study approved by the student’s advisor must be submitted for approval to the Graduate College Dean before the student registers for his or her 12th semester hour. The Plan of Study is a student’s “blueprint” for completing graduation requirements.

Programs will be designed to meet individual needs. Students must consult with their advisors for specific requirements. The writing of a thesis is optional in all areas of emphasis.

If the thesis option is chosen, a minimum of 32 hours is required, including not more than 6 hours for the thesis. Without the thesis, 36 hours are required.

NOTE: These are general guidelines. Individual departments may have their own requirements.

Hours
Minimum requirements ................................................................. 32-36

Area of Emphasis (Chemistry, Geobiophysical Modeling, Geology, Mathematics, Physics) .............................................. 12-18

Minor area (Chemistry, Geobiophysical Modeling, Geology, Mathematics, Physics) ......................................................... 6

Electives ...................................................................... 12-18

Requirements for Geology Area of Emphasis
1. The M.S. candidate must pass a qualifying examination during the first eight weeks of his or her first semester of graduate work. The exam will be administered orally by the Geology faculty and will be coordinated by the student’s thesis advisor. The candidate will be allowed two attempts to pass the qualifying exam. If the candidate fails to pass the qualifying exam after two attempts, the candidate must withdraw from the program at the end of his/her first semester and may not re-enter the program until the following academic year.

2. Following successful completion of the qualifying exam, and prior to the end of the first semester of graduate work, the candidate must submit to the Graduate College a Plan of Study approved by the Geology faculty. The plan must include a total of at least 32 hours, at least 16 of which must be earned in classes numbered 600 or above. In addition, the curriculum must include at least 12 hours of 500-600 level geology courses. A maximum of six hours may be taken as thesis credit.

3. Following approval of the Plan of Study, the candidate must form a thesis committee with the mutual consent of his/her advisor, and nominated faculty. The committee will consist of at least three faculty members with graduate status, at least two of whom are faculty members from the Geology Department. All faculty members on the committee must hold a terminal degree in their field. If agreed by the candidate and his/her advisor, a person from outside the university and
familiar with the thesis topic, such as a professional from government or industry, may be added to the committee as an ex-officio member. (Any ex-officio members of the committee will not participate in the qualifying exam).

4. The candidate must submit a thesis proposal by the end of his/her second semester. This document will contain an introduction to the thesis subject, with a clear statement of the significance of the work to be done. Sufficient background on the topic and a proposed plan of research methods to complete the thesis are also required.

5. The candidate will be evaluated by a letter grade in all graduate coursework with the exception of the 6 hours of thesis work, which will be evaluated by a CR/NC grade. No candidate will earn his/her degree unless he/she obtains a “CR” grade for the thesis.

6. The candidate should submit an application for graduation to the Graduate College at the beginning of the semester in which he/she plans to graduate.

7. Upon completion of his/her thesis work, the candidate will submit a draft of the thesis to his/her advisor. Once the draft thesis has been approved by the advisor, the candidate will submit the draft thesis to his/her thesis committee.

8. The candidate must orally present and successfully defend his/her thesis before his/her thesis committee. The oral presentation will not exceed 45 minutes, and will be open to the public. The subsequent question-and-answer session by the committee will focus solely on the candidate’s research, and will be closed to the public. Upon completion of the Q & A session (which should not last more than 45 minutes), the candidate will be asked to leave the room, while the committee members deliberate. The candidate’s thesis advisor will communicate the results of deliberation to the candidate. Should the candidate not pass his/her thesis defense, he/she will be allowed two more attempts at defending the thesis. Should the candidate be unsuccessful in defending the thesis after the third attempt, he/she will be removed from the M.S. in Physical and Applied Science. Conference or meeting presentations will not substitute for the oral defense.

9. The candidate must submit a final copy of his/her thesis with all revisions requested by the committee members to the committee for final approval. Once the committee approves the thesis, the candidate will be given permission to upload a PDF version of the thesis on the Graduate College ETD Administrator website. The candidate’s advisor is responsible for proofreading this version to ensure that it is identical to the version approved by his/her thesis committee.

**Minor in Geobiophysical Science**

The Department of Physics and Physical Science also offers a minor field in Geobiophysical Science. Please contact the department chair for information about this minor.
BIOMEDICAL SCIENCES, M.S., Ph.D.

Areas of Emphasis
- Cancer Biology
- Cardiovascular Disease, Obesity, and Diabetes
- Infectious and Immunological Diseases
- Medical Sciences (M.S. only)
- Neuroscience and Developmental Biology
- Toxicology and Environmental Health Sciences

Program Description

The basic science departments of the Joan C. Edwards School of Medicine offer an interdisciplinary program leading to the Master of Science and Doctor of Philosophy degrees in Biomedical Sciences. The primary aim of the Biomedical Sciences (BMS) program is to produce graduate students who are broadly based in the biomedical sciences with defined interests and special in-depth training in one of the following areas of emphasis: cancer biology; cardiovascular disease, obesity, and diabetes; infectious and immunological diseases; neuroscience and developmental biology; and toxicology and environmental health sciences. These areas are designed to be flexible and research oriented in order to develop the interests, capabilities and potential of all students pursuing careers in academic or industrial biomedical sciences.

In addition, the BMS program offers a non-thesis Master of Science degree in the medical sciences area of emphasis to improve the science foundation of students seeking admission into doctoral programs in the health professions. This area of emphasis is also for students wishing to pursue non-research careers in the health professions or in the biotechnology and pharmaceutical industries.

Admission into this program does not guarantee admission into medical school. Students in this area of emphasis are required to pay the Health Professions Fee each semester while enrolled in the program. Because of the nature of the curriculum, applicants to the medical sciences area of emphasis will only be considered for admission for the Fall semester.

The Biomedical Sciences Doctor of Philosophy degree program accepts a very limited number of students to study concurrently with the Doctor of Medicine degree.

Admission Requirements

Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission.

Applicants must also meet the admissions requirements of the Graduate Studies Committee of Marshall University's Joan C. Edwards School of Medicine. Interested persons should contact the Biomedical Sciences Graduate Program, Byrd Biotechnology Science Center, Marshall University School of Medicine, One John Marshall Drive, Huntington, WV 25755 or via the Internet at www.marshall.edu/bms/future-students/application-information.

Minimum Requirements for Admission into Master of Science or Doctor of Philosophy Program

All applicants must have baccalaureate degrees, with one year of general biology, physics, general chemistry, and organic chemistry, all with associated laboratories. Although biochemistry, cell biology, calculus and physical chemistry are not requirements for admission, they may be required for certain areas of emphasis and are highly recommended.

- Graduate Record Examination (GRE) General Test scores (scores may not be more than five (5) years old at the application deadline for the Ph.D. program or at the start of the semester when matriculating for the M.S. program) or MCAT scores (Medical Sciences area of emphasis only, minimum of 22 total)
- Three letters of recommendation from references familiar with the applicant’s relevant academic/professional performance
- A written statement describing educational and career goals.

Ph.D. Applications

The completed application, application fee, official transcripts and official GRE or MCAT scores should be received in the Graduate Admissions Office by January 15th for summer or fall applications in order for the application to be considered by the program.

(continued)
Letters of recommendation and personal statements should be received in the BMS Office by January 15th in order for the application to be considered complete and for an admission decision to be rendered. Applications completed very soon after the above stated deadlines may be considered at the discretion of the BMS Graduate Studies committee.

New Ph.D. students will matriculate in July (Summer III term).

**M.S. Applications**

The completed application, application fee, official transcripts, three letters of recommendation, written statement, and official GRE or MCAT scores (MCAT scores accepted for medical sciences area of emphasis only) should be received in the Graduate Admissions Office by June 1st for fall applications in order for the application to be considered by the program.

**Duration of Degree Programs**

Students generally complete the requirements for the Master of Science degree within two to three years. Those who pursue the doctoral degree usually complete the requirements within five to six years. Students who possess an M.S. degree in biomedical sciences or the equivalent when admitted into the doctoral degree program generally require three to four years to complete the Doctor of Philosophy degree.

**BIOMEDICAL SCIENCES, M.S.**

All students are required to meet the general requirements of the Graduate College for receipt of a master’s degree. A minimum of 36 credit hours is required for a non-thesis degree, while a minimum of 32 credit hours is required for the thesis degree. No more than six hours of thesis (BMS 681) may be credited toward the 32-hour requirement. Each student will specialize in one of the six areas of emphasis as defined in the program overview. All students are required to successfully complete:

- BMS 600 Foundations of Biomedical Sciences
- BMS 617 Statistical Techniques for the Biomedical Sciences
  (or MTH 518, BSC 517, PSY 517, EDF 517 or equivalent)
- BMS 644 Responsible Conduct of Research
- BMS 660/661 Communication Skills for Biomedical Sciences
- BMS 685 Introduction to Research (min. of 3 hrs.)
- BMS 680 Seminar (minimum of 6 hrs.)

In addition, the student must successfully complete other courses required by his/her area of emphasis and advisory committee and pass a written and/or oral comprehensive examination.

**BIOMEDICAL SCIENCES, Ph.D.**

The doctorate is a research or performance degree and does not depend solely on the accumulation of credit hours. The degree requirements are admission to candidacy and successful completion and defense of a dissertation. The degree signifies that the holder has the competence to function independently at the highest professional level.

**Degree Requirements**

To qualify for the Doctor of Philosophy degree, the student must pass (C or better or CR) the following courses:

- BMS 600 Foundations of Biomedical Sciences
- BMS 644 Responsible Conduct of Research
- BMS 617 Statistical Techniques for the Biomedical Sciences
- BMS 660/661 Communication Skills for Biomedical Sciences
- BMS 680 Seminar (minimum of 6 hrs.)
- BMS 685 Introduction to Research
- BMS 882 Research (maximum of 15 hrs.).

In addition, the student must successfully complete other courses required by his/her area of emphasis and advisory committee. All courses will be defined in the student’s Course of Study.

**Advisory Committee**

The advisory committee should be formed no later than the end of the first year of graduate education or upon completion of 18 semester hours of credit. As soon as the committee has been identified, an Approval for Dissertation Topic
and Committee Membership form is completed and submitted to the Director of Graduate Studies and the Dean of the Graduate College.

The committee will be selected by the student and research advisor and approved by the Director of Graduate Studies and the Dean of the Graduate College. The advisory committee will be composed of at least five faculty members with appropriate expertise.

One of the members may be from another institution. The student's research advisor will act as the chairperson of the committee.

Approval of Course of Study

It is essential for the student and advisory committee to carefully define a Course of Study by the end of the first year. This is considered a basic contract between the student and the program and includes:

1. All transfer credits.
2. Required and elective courses to be taken at Marshall University.
3. All competencies to be achieved by the student during graduate study. These details must be recorded on a Course of Study form and submitted for approval by the Director of Graduate Studies and the Dean of the Graduate College.

Graduate Assistantships for the Doctor of Philosophy Program

Research assistantships are available for students in the doctoral degree program on a competitive basis. The base stipend is renewable annually for up to six years. Priority consideration for the Doctor of Philosophy graduate assistantships will be given to West Virginia residents.

Academic Performance

• The student must maintain a Grade Point Average of 3.0, and no more than six hours of C and no grades below C may be applied toward the degree.

• If the GPA falls below 3.0, the student will be placed on academic probation. Following notification of probation, the student will be counseled by his/her advisor. At this time, the deficiency will be identified and a written plan will be prepared for removing it within the next nine semester hours. This plan, co-signed by the student and the advisor, must be approved by the Dean of the Graduate College before the student can register for additional coursework.

• If probationary status is not removed within nine semester hours, the Dean of the Graduate College, in consultation with the Senior Associate Dean for the Biomedical Sciences and the Graduate Studies Committee will determine whether the student is retained or dismissed from the program. Retention must be recommended by the interim advisor or student’s advisory committee and endorsed by the Graduate Studies Committee.

Transfer Credit

The student may transfer credits completed at other regionally accredited graduate institutions. Approval of the Graduate Studies Committee and the Dean of the Graduate College is contingent on:

1. the grades earned were B’s or better;
2. the credits are appropriate to the student's program and acceptable to the advisory committee; and
3. the time limitations were not exceeded.

The number of transfer hours acceptable for the Ph.D. degree will be determined by the student’s advisory committee. Approval must be received from both the Graduate Studies Committee and the Dean of the Graduate College. Transfer credit will not become part of the Marshall University Grade Point Average.

Transfer of credits should be accomplished as early as possible. This should be accomplished either when the student is admitted to candidacy or submits an approved Course of Study. Attempts to transfer credits during the last semester may delay graduation. Official transcripts must be on file in the Graduate College office by the date that grades are due in the Marshall University Registrar’s Office.

Validation of Outdated Coursework

The advisory committee has the option to require validation, by special examination, of courses which members deem to be outdated.

Time Limitations

Students must meet all requirements for the Doctor of Philosophy degree within seven years from the date of enrollment in the first course to be used in the degree program. The Graduate Dean may grant an extension upon recommendation by the Graduate Studies Committee. Absence due to military obligations, long serious illnesses, or similar circumstances beyond
the student’s control may be considered valid reasons for an extension. It is the option of the advisory committee to require validation of outdated courses by special examination.

**Admission to Candidacy**

Admission to graduate study and enrollment in graduate courses does not guarantee acceptance as a candidate for the Doctor of Philosophy degree. This is only accomplished by satisfactorily passing a comprehensive qualifying examination and meeting all other specified requirements. The qualifying examination assesses whether the student has attained sufficient knowledge to undertake independent research. The examination should be completed at the end of the second year of study. The examination consists of written and oral components covering all areas specified in the Course of Study. The examination is prepared, administered and graded by the advisory committee. The written portion includes all coursework and relevant topics determined by the advisory committee. The student will be given 23 days to complete the written component of the examination. Upon passing the written examination, the student must submit a grant proposal on the topic of his/her dissertation research or a related topic approved by the advisory committee. The proposal must be in the style of an NIH Predoctoral grant proposal. Links to the instructions for the proposal format can be found on the BMS Graduate Program website. The grant proposal must be submitted within 2 months of completion of the written exam and given to the advisory committee members at least 2 weeks in advance of the oral defense. The oral examination consists of a defense of the grant proposal and, at the discretion of the advisory committee, may include topics from the written portion of the exam in which the student was deemed to be deficient. Successful completion of the qualifying examination is based on approval of the committee. Only one dissenting vote is permitted on each component. If necessary, a single portion of the examination may be repeated at the discretion of the advisory committee. The student must have the approval of the advisory committee to repeat either the written or oral component of the qualifying examination. The committee assesses the deficiencies and determines the time required for the student to make corrections. A student may take a given component of the qualifying examination no more than three times. Failure to pass this examination on the third attempt will result in dismissal. The advisory committee must complete an Admission to Candidacy for Ph.D. form after the student completes the examinations and submit it for approval by the Senior Associate Dean for the Biomedical Sciences and the Dean of the Graduate College.

**Dissertation**

All candidates must successfully complete a biomedical research project and prepare, submit, and defend a dissertation. The dissertation must present the results of the candidate’s individual investigation and make a definite contribution to the current state of knowledge. While conducting research and writing a dissertation, the student must register for Research (BMS 882) at the beginning of each semester or summer term for which progress is to be earned. No more than 15 hours of doctoral research may be credited toward the degree.

Candidates are to follow the general guidelines outlined in *Publishing Your Dissertation: How to Prepare Your Manuscript for Publication* and *General Information About Dissertations*. Copies of these documents are on file in the Biomedical Sciences Graduate Program office.

**Oral Defense of the Dissertation**

The oral defense of the dissertation is held during the semester or summer session in which all other degree requirements have been met. The advisory committee must read and tentatively approve the dissertation before the examination can be scheduled. The committee chairperson will complete an Approval to Schedule Dissertation Defense form and submit it for approval of the Director of Graduate Studies and the Dean of the Graduate College before the examination can be given. Such notification must occur at least two weeks before the proposed date of the defense. A portion of the defense is an open examination and sufficient time is required for adequate public notice.

The open examination usually takes the form of a one-hour seminar. This is followed by a thorough review of the dissertation by the advisory committee and the candidate. Successful completion of the defense requires the approval of all but one of the members of the advisory committee. The results (pass/fail) must be recorded on a Results of Dissertation Examination form, which is to be reported to the Office of Research and Graduate Education and forwarded to the Graduate College Office within 24 hours. Should the candidate fail the defense, reexamination may not be scheduled without the approval of the advisory committee, the Senior Associate Dean for the Biomedical Sciences, and the Dean of the Graduate College.

All advisory committee members are to be present for the defense. If this is not possible, the Dean of the Graduate College, or designee, may permit one substitute for any member of the committee except the chairperson. A request for a substitute must be submitted in writing to, and approved by, the Senior Associate Dean for the Biomedical Sciences and the Dean of the Graduate College. The committee chairperson, the student, and both the original member of the committee to be replaced, and the substitute must sign this request. The substitute must have the same, or higher, graduate faculty status as the original member and represent the same academic discipline or area of emphasis.

**Acceptance of Dissertation**

Acceptance of the dissertation is a requirement for the doctoral degree. An accepted dissertation must bear the original signatures of at least all but one member of the advisory committee. If more than one member cannot approve the
dissertation, the doctoral degree cannot be recommended. If the substitute member attends and approves the dissertation defense, he or she signs the dissertation. For complete information on the preparation and submission of electronic theses and dissertations see www.marshall.edu/graduate/current-students/edt.

Survey of Earned Doctorates

Please complete and submit the online Survey of Earned Doctorates. Survey of Earned Doctorate information is used by a number of government agencies to assess the state of doctoral education in the U.S., and also to inform their decisions concerning funding of U.S. graduate institutions. The online survey is available at http://survey.norc.uchicago.edu/doctorate/index.jsp.

Publication

All doctoral dissertations and their abstracts will be microfilmed through University Microfilms, Ann Arbor, Michigan. This requirement cannot be satisfied by any other publication, but other publication of material in the dissertation is both permitted and encouraged.

Process Summary

1. Inquiry from prospective student to the Biomedical Sciences Graduate Program or Graduate Admissions Office.
2. Submission of the application to the Biomedical Sciences Graduate Program, the Graduate Admissions Office, or online.
3. Receipt of the following official application materials and required fee by the Graduate Admissions Office: application, GRE scores, and transcript(s). International students must apply through the Center for International Programs.
4. Referral of application materials by the Graduate Admissions Office.
5. The Biomedical Sciences Graduate Program notifies the Graduate Admissions Office and the prospective student of the admission decision of the Graduate Studies Committee.
6. The accepted student arrives, reports to the Biomedical Sciences Graduate Program, is assigned an interim advisor, and registers for coursework.
7. Selection of an area of emphasis/advisor must be achieved by the end of the first year. After a permanent advisor has been selected, an advisory committee is formed. A Course of Study should be developed by the end of the first year.
8. The student completes requisite coursework and other program requirements.
9. The student takes written and oral qualifying examinations for admission to candidacy to the Ph.D. These examinations should be scheduled within two months of each other.
10. The student continues doctoral research under the guidance of his/her advisory committee. The dissertation phase begins with the approval of a dissertation prospectus by the advisory committee, the Biomedical Sciences Graduate Program and the Graduate College Dean.
11. The student applies for graduation at the beginning of his or her last semester no later than the university deadline in the academic calendar. The diploma fee must be paid by this time.
12. A copy of the preliminary draft of the dissertation is given to each member of the advisory committee no later than two weeks prior to the final defense of the dissertation.
13. The chair of the advisory committee requests clearance for the defense from the Biomedical Sciences Graduate Program and the Graduate College for approval no later than two weeks before the scheduled date of the defense.
14. The time and place of the defense of the dissertation are announced.
15. The student defends the dissertation in an oral defense.
16. The student follows the steps to prepare and submit the electronic thesis or dissertation at www.marshall.edu/graduate/current-students/edt.
PHARMACY, Pharm.D.

Program Description

The mission of the Marshall University School of Pharmacy is to prepare its students to become pharmacy practitioners that excel as skilled and productive health care professionals in the provision of services, in the standards of care, and in the discovery of new knowledge that ensures optimal medication therapy outcomes. The school utilizes an integrated, interprofessional education approach combined with a team-based clinical philosophy that emphasizes inquiry-based learning, while advancing scholarship, research, and patient care, all directed toward the goal of improving the health and well-being of West Virginians, residents of the Tri-state region, and the nation.

Central to the program’s mission is the development of the key skills and abilities (termed terminal outcomes) required for competent pharmacy practice. These terminal outcomes expect all students who graduate from the Marshall University School of Pharmacy Pharm.D. program to be able to:

1. Improve patient quality of life,
2. Contribute to the betterment of patient care through integration in health care teams,
3. Incorporate cultural awareness and empathy into practice,
4. Accurately and safely dispense and formulate medication dosage forms,
5. Manage business, personal, and personnel responsibilities,
6. Contribute to the growth of the profession,
7. Improve population-based outcomes through application of public health and disease prevention principles,
8. Communicate appropriately with all stakeholders,
9. Use best available medical evidence during performance of professional responsibilities,
10. Exhibit professional behavior,
11. Assure patient safety.

The program requires a minimum of 4 years and 9 semesters of coursework, capstone, or practicum experiences.

Minimum Requirements for Admission

Admission to Marshall University School of Pharmacy is competitive. The school admits a maximum of 80 students per year. Applicants are directed to apply to the Marshall University School of Pharmacy through the Pharmacy College Application Service (PharmCAS, www.pharmcas.org). Completion of a secondary application directly to the Marshall School of Pharmacy is also required.

Admission to the Pharm.D. program requires the student to have:

1. Completed all required pre-pharmacy courses (note: inquiries regarding prerequisite course equivalency should be forwarded to MUSOP Student Affairs at 304-696-7354). These courses include:
   - English Composition ..........................6 credit hours or 2 semesters
   - Calculus ...........................................5 credit hours or 1 semester
   - Statistics .........................................3 credit hours or 1 semester
   - Biology with Lab ..............................8 credit hours or 2 semesters
   - Chemistry with Lab ..........................10 credit hours or 2 semesters
   - Human Anatomy ..............................4 credit hours or 1 semester
   - Human Physiology ............................4 credit hours or 1 semester
   - Microbiology .................................4 credit hours or 1 semester
   - Organic Chemistry with Lab ..............9 credit hours or 2 semesters,
   - Physics with Lab .............................8 credit hours or 2 semesters
   - Social Science elective credit hours or 1 semester

2. A recommended minimum undergraduate Grade Point Average (GPA) of 2.5 or higher on a 4.0 scale for all previously completed undergraduate university work.
3. A recommended minimum GPA of 2.75 or higher on a 4.0 scale for all prerequisite courses.

(continued)
4. Three (3) letters of professional recommendation requested from persons such as pharmacists, supervisors, and professors who can tell us about your academic and/or work capabilities which would enable you to succeed in the School of Pharmacy.

5. Completed the Pharmacy College Admission Test (PCAT) within the past 24 months.

6. Completed both an application through PharmCAS and a supplemental application through the Marshall University School of Pharmacy (www.marshall.edu/pharmacy/application).

7. Submitted all required application fees.

8. Completed an on-site interview.

Curriculum

The curriculum is designed to be completed over 4 years or 9 semesters. A summary of the courses composing the curriculum is found below:

**Year 1 - Fall**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHAR 541</td>
<td>Pharmacy Practice I</td>
</tr>
<tr>
<td>PHAR 542</td>
<td>Immunology and Microbiology</td>
</tr>
<tr>
<td>PHAR 551</td>
<td>Biomedical Chemistry</td>
</tr>
<tr>
<td>PHAR 511</td>
<td>Clinical Immunology</td>
</tr>
<tr>
<td>PHAR 531</td>
<td>Biopharmaceutics I</td>
</tr>
<tr>
<td>PHAR 811</td>
<td>Introductory Pharmacy Practice Experiences in Community Settings 1 (PPE1) OR</td>
</tr>
<tr>
<td>PHAR 812</td>
<td>Introductory Pharmacy Practice Experiences in Institutional Settings 1 (PPE2)</td>
</tr>
</tbody>
</table>

**Semester Total........................... 18 credit hours**

**Year 1 - Spring**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHAR 543</td>
<td>Spring Pharmacy Practice II</td>
</tr>
<tr>
<td>PHAR 544</td>
<td>Principles of Disease and Drug Action</td>
</tr>
<tr>
<td>PHAR 532</td>
<td>Biopharmaceutics 2</td>
</tr>
<tr>
<td>PHAR 521</td>
<td>Integrated Laboratory 1</td>
</tr>
<tr>
<td>PHAR 545</td>
<td>Therapeutics 1-Appropriate use of over-the-counter products</td>
</tr>
<tr>
<td>PHAR 811</td>
<td>Introductory Pharmacy Practice Experiences in Community Settings 1 (PPE1) OR</td>
</tr>
<tr>
<td>PHAR 812</td>
<td>Introductory Pharmacy Practice Experiences in Institutional Settings 1 (PPE2)</td>
</tr>
</tbody>
</table>

**Semester Total........................... 18 credit hours**

**Year 2 - Fall**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHAR 661</td>
<td>Therapeutics 2 - Infectious, Immunological, and Ears, Nose, and Throat Diseases</td>
</tr>
<tr>
<td>PHAR 631</td>
<td>Pharmacometrics</td>
</tr>
<tr>
<td>PHAR 632</td>
<td>Pharmacy Practice Management I: Leadership</td>
</tr>
<tr>
<td>PHAR 621</td>
<td>Pharmacy Law and Ethics</td>
</tr>
<tr>
<td>PHAR 611</td>
<td>Integrated laboratory 2</td>
</tr>
<tr>
<td>PHAR 622</td>
<td>Exploration of Competency and Responsibility in Pharmacy Practice</td>
</tr>
<tr>
<td>PHAR 813</td>
<td>Introductory Pharmacy Practice Experiences in Community Settings 2 (PPE3) OR</td>
</tr>
<tr>
<td>PHAR 814</td>
<td>Introductory Pharmacy Practice Experiences in Institutional Settings 2 (PPE4)</td>
</tr>
</tbody>
</table>

**Semester Total........................... 18 credit hours**

**Year 2 - Spring**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHAR 671</td>
<td>Therapeutics 3- Cardiovascular Diseases, Renal diseases, Pulmonary Diseases, and Electrolyte Homeostasis</td>
</tr>
<tr>
<td>PHAR 633</td>
<td>Patient Care Skills Lab</td>
</tr>
<tr>
<td>PHAR 634</td>
<td>Pharmacy Practice Management II: Finance</td>
</tr>
<tr>
<td>PHAR 612</td>
<td>Therapeutic Drug Dosing</td>
</tr>
<tr>
<td>PHAR 635</td>
<td>Bridging Research Outcomes and Patient Care</td>
</tr>
<tr>
<td>PHAR 813</td>
<td>Introductory Pharmacy Practice Experiences in Community Settings 2 (PPE3) OR</td>
</tr>
<tr>
<td>PHAR 814</td>
<td>Introductory Pharmacy Practice Experiences in Institutional Settings 2 (PPE4)</td>
</tr>
</tbody>
</table>

**Semester Total........................... 18 credit hours**
Year 3 – Fall

- PHAR 711 National Certification for Medication Therapy Management
- PHAR 751 Therapeutics 4 - Neurologic and Psychiatric diseases
- PHAR 741 Therapeutics 5 - Endocrine Diseases, Genitourinary Diseases, and Reproduction
- PHAR 742 Pharmacy Practice Management III: Patient Safety
  Elective 1 (3 credit hours)

Two courses from the following:
- PHAR 815 Ambulatory Care Skills (PPE 5) OR
- PHAR 816 Inpatient Practice Skills (PPE 6) OR
- PHAR 817 Introductory Pharmacy Practice Experiences in Practice Management (PPE 7) OR
- PHAR 818 Introductory Pharmacy Practice Experiences in Education (PPE 8)

Semester Total ................................... 17 credit hours

Year 3 – Spring

- PHAR 761 Therapeutics 6 - Hematological Diseases, Oncological Diseases, Musculoskeletal Diseases, Gastrointestinal Diseases, Hepatic Diseases, And Nutrition
- PHAR 721 Therapeutics 7 – Providing Care to Special Populations
  Elective 2 (3 credit hours)
- PHAR 731 Case Studies in Pharmacy Practice

Two courses from the following:
- PHAR 815 Ambulatory Care Skills (PPE 5) OR
- PHAR 816 Inpatient Practice Skills (PPE 6) OR
- PHAR 817 Introductory Pharmacy Practice Experiences in Practice Management (PPE 7) OR
- PHAR 818 Introductory Pharmacy Practice Experiences in Education (PPE 8)

Semester Total ................................... 16 credit hours

Year 4 – Summer/Fall/Spring

- PHAR 881 Advanced Pharmacy Practice Experiences in General Medicine (APPE 1)
- PHAR 882 Advanced Pharmacy Practice Experiences in Ambulatory Care / Primary Care (APPE 2)
- PHAR 883 Advanced Pharmacy Practice Experiences in Community Pharmacy (APPE 3)
- PHAR 884 Advanced Pharmacy Practice Experiences in Institutional Settings (APPE 4)
- PHAR 885 Advanced Pharmacy Practice Experiences in Geriatrics (APPE 5)
- PHAR 886 Advanced Pharmacy Practice Experiences in Diverse Populations (APPE 6)
  APPE 7 · elective (5 credit hours)
  APPE 8 · elective (5 credit hours)
- PHAR 891 Capstone 1 - National APhA Diabetes Certification
- PHAR 892 Capstone 2 · NAPLEX Exam Review

Total for Year 4 ........................................ 45 credit hours

Total Semester Credit Hours for Program .................................................. 150

Academic Performance

Students are eligible for graduation upon successful completion of all academic and clinical (Professional Practice Experiences) requirements and documented competency in the P4 Annual Assessment of Competency. The student must earn a minimum of 150 semester credit hours. The expected graduation grade point average is 3.0 with the minimum grade point average of 2.5. The student is responsible for knowing and satisfying degree and graduation requirements. Students must be enrolled in the term in which they plan to graduate.

Accreditation Status

Marshall University School of Pharmacy has been granted Candidate status by the Accreditation Council for Pharmacy Education. For an explanation of the ACPE accreditation process, please contact the Accreditation Council for Pharmacy Education, 135 South LaSalle Street, Suite 4100, Chicago, IL 60603, 312-644-3575; FAX 312-664-4652, website www.acpe-accredit.org.
Time Limitations

If a student has not completed his/her Pharm.D. degree within six years from the end of the first course to be counted toward his/her degree, and if the student has not been enrolled in a course toward that degree for the most recent one year when that seven-year limit is reached (meaning the sixth year), then the student will be dropped from the program. To continue to work on that degree, the student must reapply for admission to that degree program through the regular graduate admission process, and pay the appropriate admission fees.
ABBREVIATIONS

PR: Prerequisite
CR: Corequisite

REC: ..............................................................................................Recommended
I,II,S: ..................................................................................I-Fall semester; II-Spring semester; S-Summer
lec. -lab..................................................................................Lecture and laboratory hours per week
(e.g., 2 lec-4 lab means two hours lecture and four hours laboratory per week)
ACCOUNTING (ACC)

510 Survey of Accounting, 3 hrs.
Application of accounting as an information development and communication function that supports economic decision making. Topics include principles, concepts, problems, financial analysis, personal and organizational decisions, business entities, and government.

512 Government and Not-for-Profit Accounting, 3 hrs.
Accounting, reporting, and analysis of both governmental entities and not-for-profit entities will be examined with the focus on the preparation and use of the information for decision makers.

544 Consulting for CPAs, 3 hrs.
To acclimate students to the consulting work environment; emphasis on collecting relevant information to provide comprehensive solutions. To provide concrete examples of this process. The course will focus on estate tax calculations, and planning; retirement and investment planning.

580-583 Special Topics, 4 hrs.

612 Accounting Functions in Business, 3 hrs.
A study of the generation, transformation, and presentation of quantitative data produced by the accounting process. Emphasis is given to the modern accounting system that generates information (1) for marketing, production, and financial executives in planning and controlling business operations, and (2) by investors, creditors, governmental agencies, and other external groups having an interest in the operating results and financial position of business firms. (PR: Full M.B.A. admission or permission of GSM academic advisor)

613 Profit Planning and Controls, 3 hrs.
Determination, analysis, and reporting of data for planning and controlling operations. Includes flexible budgets, standard costs, and systems of determining historical costs. (PR: Full M.B.A. admission or permission of GSM academic advisor)

614 Theory of Accounting, 3 hrs.
History and development of accounting principles; intensive study of theoretical problems related to determination of income and presentation of financial conditions. (PR: Accounting 613 and full M.B.A. admission or permission of GSM academic advisor)

615 Auditing Theory and Practice, 3 hrs.
Legal and social responsibilities of the auditor. Verification of financial statements by independent public accountants and internal auditors. (PR: Admission to Master of Science in Accountancy program or permission of Program Director)

616 Advanced Income Tax Procedure, 3 hrs.
A study of selected topics in the Internal Revenue code and regulations with emphasis on tax accounting and research. (PR: ACC 348 and full M.B.A. admission or permission of GSM academic advisor)

617 Advanced Controllership, 3 hrs.
Functions of the modern corporate controller. Topics and problems demonstrating the integrative nature of the controller's role are investigated. The use of the computer is integrated into the course. (PR: Admission to Master of Science in Accountancy program or permission of Program Director)

618 Accounting Research, 3 hrs.
Examination and evaluation of current theories, issues, and problems relating to accounting. Primary emphasis on accounting theory and research. (PR: Admission to Master of Science in Accountancy program or permission of Program Director)

632 Auditing Accounting Information Systems, 3 hrs.
An overview of accounting information systems auditing, controls, and governance. Uses both lecture and case analyses to learn about controls and identify their strengths and weaknesses.

640 Forensic Accounting: Civil Litigation, 3 hrs.
This course involves the examination of various services provided by financial experts during the litigation process and the financial theory and methodology behind analytic and damage issues in civil litigation. (PR: Admission to M.S. in Accounting or ACC 613)

648 Tax Research, 3 hrs.
Examines the primary and secondary sources of income tax law. Assignments will address using paper and electronic research tools to locate, understand, and interpret primary and secondary source materials.

650 Special Topics, 1-3, 1-3 hrs.
(PR: Permission of the division head and full M.B.A. admission)

660 Independent Study, 1-4 hrs.
Independent study of a specific nature under the supervision of a faculty member with graduate status. Hours determined by the magnitude of the project. (PR: Permission of the division head and full M.B.A. admission or permission of GSM academic advisor)

698 Ethics and Professional Development in Accounting, 3 hrs.
This course examines ethical issues facing professional accountants. Professional codes of conduct and corporate governance mechanisms will be applied to manage ethical situations. (PR: Admission to Master of Science in Accountancy program or permission of Program Director)

ADULT AND TECHNICAL EDUCATION (ATE)

503 Introduction to Adult Learning Theory, 3 hrs.
Designed to acquaint the student with the field of adult education and its underpinnings and the various adult learning theories and/or approaches.
503 Instructional Methods in Technical Training. 3 hrs.
Unit and lesson planning; cooperative education as a method of instruction, project plan of instruction, classroom management and control, demonstration techniques, evaluation methods, field experience in Marketing Education classroom.

504 Teaching Methods in Career and Technical Education. 3 hrs.
Correlating lab instruction with classroom instruction; individual and group instruction sheets and materials; the four teaching steps in career and technical education; physical factors relating to classroom and lab.

505 Developing Selling Curriculum. 3 hrs.
Conduct library research, review selling content, select content objectives, identify content appropriate for the target group, prepare teaching outlines, and design evaluation instruments.

506 Introducing Career and Technical Education. 3 hrs.
Designed as a follow-up to Teaching Methods in Career and Technical Education and intended to provide the new teacher guidance and supervision in developing teaching competence.

507 Course Construction and Planning in Career and Technical Education. 3 hrs.
Analysis procedures for determining career and technical curriculum content; determination of program goals and objectives; involvement of advisory committees; factors, principles, and techniques of developing a course of study.

508 Organization and Management of School Shops and Laboratories. 3 hrs.
Responsibilities as a manager; methods of handling tools, equipment, and supplies; project instructional resource needs and reporting; improvement of facilities; filing system, and career and technical laboratory.

509 Principles of Cooperative Education. 3 hrs.
Principles for planning, implementing, and evaluating the cooperative design within the various service areas of technical education; analysis of factors which must be considered in selection of the cooperative design.

510 Occupational Analysis. 3 hrs.
Assist the instructor in analyzing an occupation; goals and objectives to form a basis for vocational curriculum; classifying and describing occupations; analysis procedures; course content, and technical skills and knowledge.

511 Administration of Cooperative Programs. 3 hrs.
Administering cooperative education programs, recruiting, and selecting students; selecting training agencies and placing students; conducting public relations activities for the program; and advising the student organization.

512 Safety in Career and Technical Education. 3 hrs.
Responsibilities of the teacher in providing a safe learning/working environment; effective approaches to accident prevention; laws and regulatory agencies regarding safety management in the classroom and laboratory.

513 Computer Applications in Business and Marketing Education. 3 hrs.
Study of computer applications and software for Business and Marketing Education.

514 Methods of Examination in Career and Technical Education. 3 hrs.
Develop written and performance evaluation instruments; develop and use progress charts; determine appropriate grading procedures. Develope rating scales, objectives tests, classroom tests, and manipulative tests. Introduction to statistics.

515 Coordination of Cooperative Career and Technical Education. 3 hrs.
Background of coordination; methods of techniques for evaluating and selecting work stations; student selection, placement, and follow-up; role of advisory committees; methods of evaluating cooperative work experience.

516 Developing Merchandising/Sales Promotion Curriculum. 3 hrs.
Conduct library research, review merchandising and sales promotion content, objectives, identify content appropriate for the target group, prepare teaching outlines, and design evaluation instruments.

517 Principles of Prevocational Exploration. 3 hrs.
Study of the prevocational exploration delivery system. Develop instructional units which include goals, objectives, and criteria for evaluation of students.

518 Practicum in Prevocational Exploration. 3 hrs.
Participants make revisions to instructional units, organize a Career Exploration Club, and recognize apprenticeship opportunities.

519 Practicum in Prevocational Exploration, II. 3 hrs.
Participants modify the 36-lesson plan project, incorporate additional “hands-on” activities, examine teaching strategies, and design activities for community involvement utilizing an advisory committee.

520 Computer Applications in Career and Technical Education. 3 hrs.
Designed to introduce modern instructional technology in today’s classrooms and labs. Introduction to disk operating systems; application software for instruction and instructional management; student evaluation; record keeping, and work processing.

521 Applications of Basic Skills in Career and Technical Education. 3 hrs.
Methods, techniques, and strategies for incorporating basic skills in career and technical instruction; emphasis on reading, writing, math, oral communication, and critical thinking skills; job-seeking and job-keeping skills.

522 Occupational Analysis and Instructional Design. 3 hrs.
Analyzing an occupation to identify knowledge and skills; use of the analysis to develop problem solving objectives and instructional plans; emphasis on approach to facilitate student achievement of objectives.

523 Interpersonal Skills in the Workplace. 3 hrs.
Course is designed to provide opportunities to learn in preparation for career success with supervisors, co-workers, clients, and customers. Human relations skills are examined and related to business success.

524 History and Philosophy of Career and Technical Education. 3 hrs.
Historical influences in the development of workforce education in America and Europe; motivating influences and the implications of philosophy in modern career and technical education.

525 Coordination of Career and Technical Youth Activities. 3 hrs.
Organize and develop co-curricular student organization; defining the purpose of the organization; plan application and integration into the vocational program; competencies in leadership and team building.

526 Professional Development. 1-4 hrs.
Exploring principles and techniques for career planning and job search. An overview of strategies for gaining a competitive edge in the labor market and for experiencing a successful career beginning.

527 Business and Occupational Teaching Methods. 3 hrs.
Survey materials and methods for developing competencies in teaching business education and/or occupational training programs.

528 Practicum in Adult and Technical Education. 1-4 hrs.
Individual designed field experience under supervision of the faculty; such experience related to the student’s future professional role.

529 Special Topics. 1-4 hrs.
530 Independent Study. 1-4 hrs.
531 Workshop. 1-4 hrs.
Courses of Instruction

Marshall University
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites/Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>664</td>
<td>Technical Education Practicum</td>
<td>3 hrs.</td>
<td>Individually designed to provide field experience under the supervision of the faculty, such experience to be related to the student's profession.</td>
</tr>
<tr>
<td>667</td>
<td>Cooperative Education Workforce Experience</td>
<td>1-10 hrs.</td>
<td>Alternating or parallel periods of study and paid employment for experiential learning related to student's academic and/or professional goals (Min. 50 hours of paid work experience per credit hour)</td>
</tr>
<tr>
<td>668</td>
<td>Field Based Internship in Business and Industry</td>
<td>3 hrs.</td>
<td>Internship in the technical content areas of marketing, merchandising, management or technology; evaluating methods, and procedures in marketing, merchandising, management, or technology. (PR: ATE 609, 628, 652 and 656)</td>
</tr>
<tr>
<td>671</td>
<td>Evaluation of Adult and Technical Instruction</td>
<td>3 hrs.</td>
<td>An examination of the design and evaluation processes used in adult learning areas with emphasis on the T&amp;D and technical fields as well as the general field.</td>
</tr>
<tr>
<td>673</td>
<td>Assessment in Adult/Technical Education</td>
<td>3 hrs.</td>
<td>Evaluation procedures in adult/technical education including principles of test construction; survey of standardized and published tests; utilization in the classroom or training department; review of statistical methods.</td>
</tr>
<tr>
<td>675</td>
<td>Literature and Applied Research in Adult/Technical Education</td>
<td>3 hrs.</td>
<td>Program of readings and reports on specific areas of adult/technical education or particular problems within an area of adult and technical education; reading selected cooperatively with advisor.</td>
</tr>
<tr>
<td>677</td>
<td>Research Methodology and Design in Adult/Technical Education</td>
<td>3 hrs.</td>
<td>Study of methodology, application, analysis and synthesis of research; a review of current studies with attention to statistical techniques, data collecting, data handling, and the impact of particular research.</td>
</tr>
<tr>
<td>679</td>
<td>Problem Report</td>
<td>1-6 hrs.</td>
<td></td>
</tr>
<tr>
<td>680</td>
<td>International Workforce Development</td>
<td>3 hrs.</td>
<td>This course is designed for students in technical and social fields who are interested in workforce development. It has three components: education and training, collaborative research, and technical assistance.</td>
</tr>
<tr>
<td>681</td>
<td>Thesis</td>
<td>1-6 hrs.</td>
<td></td>
</tr>
<tr>
<td>685</td>
<td>Adult and Technical Education Capstone</td>
<td>3 hrs.</td>
<td>This course provides training and assessment experiences for students seeking Master of Science degrees in Adult and Technical Education. The student's degree portfolio and capstone assessment will be completed within this course.</td>
</tr>
<tr>
<td>689</td>
<td>Grant Proposal Writing for Non-Profit Agencies</td>
<td>3 hrs.</td>
<td>This course involves the development of a grant proposal and includes the steps required to produce a final document.</td>
</tr>
<tr>
<td>701</td>
<td>The Community and Technical College</td>
<td>3 hrs.</td>
<td>History, functions, and unique characteristics of the two-year college in the American education system.</td>
</tr>
<tr>
<td>702</td>
<td>Analysis of Literature on Community and Technical College Teaching</td>
<td>3 hrs.</td>
<td>Identification and analysis of current issues in community technical college teaching with application of procedures for investigation, accompanied by a critical examination of findings and their application to local programs.</td>
</tr>
<tr>
<td>703</td>
<td>Interpretation and Utilization of Applied Research in Community and Technical College Teaching</td>
<td></td>
<td>Students will learn how to choose the appropriate statistics, interpret the outputs, and develop skills in writing about the meaning of the results.</td>
</tr>
<tr>
<td>707</td>
<td>Professional Seminar I</td>
<td>1 hr.</td>
<td>Selected topics in program and institutional assessments related to community and technical colleges.</td>
</tr>
<tr>
<td>708</td>
<td>Professional Seminar II</td>
<td>1 hr.</td>
<td>Selected topics in thesis proposal, overview of grantsmanship, and funding sources. Discussion of the effects of new technologies and the Internet on the proposal process.</td>
</tr>
<tr>
<td>709</td>
<td>Professional Seminar III</td>
<td>1 hr.</td>
<td>Provides students an opportunity to synthesize prior course experiences and to prepare and present a draft thesis prospectus.</td>
</tr>
<tr>
<td>712</td>
<td>Classroom Assessment for Community and Technical College Students</td>
<td>3 hrs.</td>
<td>Presentation of assessment principles that clearly and specifically relate to instruction, current research and new directions in the assessment field, and practical and realistic examples and suggestions.</td>
</tr>
<tr>
<td>714</td>
<td>Community and Technical College Curriculum Design</td>
<td>3 hrs.</td>
<td>Study of the major curricular programs of the comprehensive community college, including factors that influence the design and implementation, processes for assessing, and strategies for changing the curriculum for open access colleges.</td>
</tr>
<tr>
<td>718</td>
<td>Education and Employment Preparation for Diverse Populations</td>
<td>3 hrs.</td>
<td>The needs of diverse/special needs populations, including youth and adults with disabilities, disadvantaged, limited English proficient, displaced workers, minorities, incarcerated, and single teen parents. Specific attention to federal legislation.</td>
</tr>
<tr>
<td>723</td>
<td>Perspectives and Strategies for Teaching Workforce Education</td>
<td>3 hrs.</td>
<td>Teaching/learning process and consideration of teaching methods employed to encourage, guide, and evaluate community and technical college students' learning.</td>
</tr>
<tr>
<td>726</td>
<td>Funding, Planning, and Administrative Issues of Community and Technical Colleges</td>
<td>3 hrs.</td>
<td>Governance and administration of the contemporary community and technical college in the United States with a focus on planning, funding, and selected administrative issues.</td>
</tr>
<tr>
<td>781</td>
<td>Thesis</td>
<td>6 hrs.</td>
<td>Individual research in a selected field of community and technical college teaching under the direction of a graduate faculty member of the department.</td>
</tr>
</tbody>
</table>

**ANATOMY, CELL AND NEUROBIOLOGY (ACB)**

620 Gross Anatomy/Embryology I. 8 hrs. I. The course presents a comprehensive study of the structures of the human body and their development. Although the course is centered in dissection, additional learning resources include examination of non-invasive images such as CAT scans, MR images and radiographs, and the study of models and the use of computer programs. Clinical correlates and cases are used to establish the anatomical basis of the practice of medicine.

621 Gross Anatomy/Embryology I. 2 hrs. Morphology of the upper and lower limbs with dissection. (PR: Permission of instructor)

622 Gross Anatomy/Embryology II. 6 hrs. Morphology of the head and neck, thorax, abdomen, pelvis with dissection. (PR: Permission of instructor)

624 Microscopic Anatomy and Ultrastructure. 4 hrs. II. Students study the functional and microscopic aspects of cell and tissue types found in different regions of the human body. Presentation of topics correlates with the physiology course, which runs concurrently and provides an organ system approach to the material. In the laboratory portion of the course, tissues from medical histology slide sets and electron micrographs are studied.
Advanced Histological Techniques. 4 hrs., II.
Advanced techniques of tissue preparation, staining, histochemistry and immune localization. (PR: Consent of instructor)

Anatomy of the Nervous System. 4 hrs. II.
The gross and fine structure of the nervous system is correlated with function at each level of the spinal cord and brain. Lectures are supplemented in the laboratory by the study of microscopic sections and gross sections of the spinal cord, brain stem and whole brain. (PR: Consent of instructor)

Microscopic Anatomy and Ultrastructure Part I. 1 hr.
The basic tissue types of the human body will be examined at the light and electron microscopic level. (PR: Permission of instructor)

Microscopic Anatomy and Ultrastructure Part II. 3 hrs.
The organs of the human body will be examined at the light and electron microscopic level. (PR: Permission of instructor)

Principles of Mammalian Development. 3 hrs. I.
A course designed to present the salient features of normal human development so that students will have a basis for comprehending normal adult anatomic relations and variations, and a basis for interpreting congenital pathologic conditions. (PR: Consent of instructor)

Neuroanatomy I: Clinical Anatomy of the Brain and Spinal Cord. 2 hrs.
To study the essential organization of the cerebrum and spinal cord, blood supply, the spinal ascending and descending pathways, and clinically related disorders. (PR: BMS 600 or permission of instructor)

Neuroanatomy II: Clinical Anatomy of the Brain Stem and Forebrain. 2 hrs.
To study the functional organization and neurological disorders associated with the brain stem, thalamus, hypothalamus, cerebellum, basal ganglia, limbic system, and cerebral cortex. (PR: ACB 633)

Neuroanatomy Research Techniques. 3 hrs. S.
Students rotate through neuroanatomy faculty research laboratories where they have the opportunity to see state-of-the-art neuroanatomy research skills demonstrated. Each student has the opportunity to participate in neuroanatomical research. (PR: Consent of instructor)

Current Topics in Cellular Biology. 1-3 hrs. II.
Students carry out a guided comprehensive review of the literature on a current research topic. The topic is selected by agreement of the student and faculty member. Consent of instructor is required.

Electron Microscopy. 3 hrs. I.
The theory and practice of transmission electron microscopy (TEM). Sample preparation, TEM operation, darkroom work, manuscript preparation, and an individualized research project. (PR: Consent of instructor)

Independent Study in Electron Microscopy. 1-5 hrs. II.
Supervised individual research projects in electron microscopy and advanced EM Techniques: STEM, SEM, Diffraction, Darkfield. (PR: ACB 641 or approval of instructor)

Research in Cellular Processes. 1-4 hrs. II.
Provides the student with an introduction to research in cellular biology and neurobiology. The education program is arranged in consultation with an individual faculty member. Consent of instructor required.

Digital Video Imaging. 3 hrs. I, II.
An in-depth study of the theory and practice of fluorescence and confocal microscopy (including Image Deconvolution, Multiphoton Imaging, FRET, FRAP, and GFPs), intracellular ion measurements and Immunocytochemistry. (PR: Consent of instructor)

Current Topics in Neurobiology. 1-3 hrs. II.
Students carry out a guided comprehensive review of the literature on a current research topic in neurobiology. The topic is selected by agreement of the student and faculty. Consent of instructor is required.

Special Topics. 1-4 hrs. I, II.
Present course material on special areas of research or topics which are not routinely covered in existing courses. Consent of instructor is required.

Special Topics. 1-4 hrs. I, II.
Present course material on special areas of research or topics which are not routinely covered in existing courses. Consent of instructor is required.

Special Topics. 1-4 hrs. I, II.
Present course material on special areas of research or topics which are not routinely covered in existing courses. Consent of instructor is required.

ANTHROPOLOGY (ANT)
(See also Sociology)

Deconstructing Appalachia. 3 hrs.
Exploration of the historical and cultural significance of Appalachia in the American experience and imagination. (PR: Six hours of undergraduate anthropology on 300 level or higher or departmental permission)

Appalachian Field Experience I. 3 hrs.
Supervised field work in an Appalachian community studying the social and cultural characteristics of the area. (PR: ANT 511 or equivalent)

Appalachian Field Experience II. 3 hrs.
Supervised field work in an Appalachian community studying the social and cultural characteristics of the area. (PR: ANT 511 or equivalent)

Archeological Theory and Analysis. 3 hrs.
An introduction to archaeo logical theory and its application to the material record of cultures, past and present. (PR: Six hours of undergraduate anthropology on 300 level or higher or departmental permission)

African Cultures. 3 hrs.
Comparative analysis of the ethnic groups of Africa, using archaeological and ethnographic data. (PR: Six hours of undergraduate anthropology on 300 level or higher or departmental permission)

Oceanian. 3 hrs.
Comparative analysis of the indigenous peoples and cultures Melanesia and Polynesia using archaeological and ethnographic data (PR: Six hours of undergraduate anthropology on 300 level or higher or departmental permission)

The Native Americans. 3 hrs.
Comparative analysis of the indigenous inhabitants of North America using archaeological and ethnographic data. (PR: Six hours of undergraduate anthropology on 300 level or higher or departmental permission)

American Ethnicities. 3 hrs.
Comparative overview of historical and contemporary patterns of immigration, settlement, and interethnic relations in the United States. (PR: Six hours of undergraduate anthropology on 300 level or higher or departmental permission)

Design, Planning, and Health. 3 hrs.
Social scientific study of how places where people live, work, and recreate affect quality of life and overall health with an emphasis on design decisions within urban and regional planning.

Disaster, Culture and Health. 3 hrs.
Study of contemporary environmental and social problems emphasizing health impacts of natural and technological disasters on communities around the world. (PR: Six hours of undergraduate anthropology on 300 level or higher or departmental permission)
Exploring the considerations for curriculum development in Art Education, developing individualized curriculum for specific situations on grade levels.

566 Problems in Curriculum Development for Public School Art K-12, 3 hrs.
Studies the development of curriculum for public school art programs from K-12, focusing on practical and theoretical aspects.

564 History of Modern Design, 3 hrs.
A survey of the evolution of modern design, including industrial design, architecture, and graphic design, focusing on key movements and designers.

560 History and Philosophy of Art Education, 3 hrs.
An introduction to the history and philosophy of art education, emphasizing the development of curricula and pedagogical strategies.

557 Figure Painting, 3 hrs.
Study and practice of painting in expressing human figure, focusing on technique and composition.

554 Designing for Multimedia, 3 hrs.
Current topics and techniques in multimedia design, including animation, digital video, and interaction design.

550 2 & 3 Dimensional Designs for Fabrics, 3 hrs.
Practice in designing and creating fabrics using two and three-dimensional techniques.

540 Advanced Graphic Design, 3 hrs.
Directed study in graphic design, focusing on the development of specific design projects.

519 Spinning, Dyeing, and Tapestry, 3 hrs.
Study of traditional and modern techniques in textile arts, including spinning, dyeing, and weaving.

516 Baroque Art, 3 hrs.
Analyzes Baroque art and its impact on European art during the 17th century.

515 Art and Architecture of the Italian Renaissance, 3 hrs.
Explores the art and architecture of the Italian Renaissance, focusing on key movements and figures.

514 Art and Architecture of the Italian Renaissance, 3 hrs.
Explores the art and architecture of the Italian Renaissance, focusing on key movements and figures.

513 Contemporary Art, 3 hrs.
A survey of contemporary art, focusing on themes and movements of the 20th and 21st centuries.

512 20th Century Art, 3 hrs.
A survey of the art and architecture of the 20th century, focusing on key movements and figures.

511 Art and Architecture of Ancient Rome, 3 hrs.
Explores the art and architecture of ancient Rome, focusing on key movements and figures.

510 Art of the Renaissance in Northern Europe, 3 hrs.
Explores the art and architecture of Northern Europe during the Renaissance.

509 Nineteenth Century Art, 3 hrs.
Explores the art and architecture of the 19th century, focusing on key movements and figures.

508 Architecture of Ancient Egypt, 3 hrs.
History of the visual arts and architecture in Ancient Egypt, focusing on key movements and figures.

507 Tribal Arts, 3 hrs.
An introduction to the arts of preliterate peoples, focusing on the cultural and social contexts.

506 Figure Drawing, 3 hrs.
Practice in drawing from the posed human figure.

505 Iconography of Mary, 3 hrs.
Traces the sources and evolution of Catholic doctrine and images of the Virgin Mary.

504 Baroque Art, 3 hrs.
Uses methods and theories from anthropology, linguistics, and sociology to examine how gendered bodies in different cultures are constructed through ways of acting in the social world.

503 Theory in Ethnology, 3 hrs.
Introduction to major theoretical traditions of cultural anthropology with emphasis on the connection between fieldwork and development of theory.

502 Ethnographic Research, 3 hrs.
An advanced project-based introduction to ethnographic research design and practice.

501 Independent Study, 1-4 hrs.
Individual study of topics not offered in regularly scheduled classes.

500 Special Topics, 1-4 hrs.
Study of topics of interest not covered in regularly scheduled classes.

568 National Identity, 3 hrs.
Exploration of the cultural, political and economic processes that contribute to the creation and maintenance of the modern nation state as an imagined community.

567 Culture through Ethnography, 3 hrs.
In-depth exploration and comparison of diverse cultural groups through reading and discussing ethnographic texts.

566 History of Modern Design, 3 hrs.
A survey of the evolution of modern design, including industrial design, architecture, and graphic design, focusing on key movements and designers.

564 History of Modern Design, 3 hrs.
History of print and object design from the beginning of the nineteenth through the twentieth century will be studied in terms of art history, technology, politics, economics, and consumer behavior.

563 Problems in Curriculum Development for Public School Art K-12, 3 hrs.
Exploring considerations for curriculum development in Art Education, developing individualized curriculum for specific situations on grade levels K-6 or 7-12.
Printmaking Processes. 3 hrs. I, II, S.
Experiments in the media of Intaglio, Lithography, Serigraphy, Relief, Collagraphs and new techniques of printmaking.

Practicum. 3 hrs. I, II, S.
To be used for learning activities that involve the application of previously learned processes, theories, or techniques.

Special Topics. 1-4 hrs.
To be used for experimental courses. By permission only.

Independent Studies. 1-4 hrs.
To be reserved for tutorials, directed and independent research and readings, problem reports, and other activities designed to fit the needs of individual students within the major.

Advanced Problems in Art Education (Grades K-12). 3 hrs. I, II, S.
For graduate students with limited experience in the arts and crafts wishing to familiarize themselves with methods and materials used in art education.

Advanced Studio Sequence. 3; 3; 3; 3; 3 hrs. I, II, S.
The student will select special studies from ceramics, drawing, fibers, graphic design, painting, photography, printmaking, sculpture, and other related approved projects.

Seminar. 3 hrs. II. Even years only.
Discussion and research in selected areas of art.

Problem Report. 1-3 hrs. I or II or S.

Thesis. 1-6 hrs. I or II or S.

BIOCHEMISTRY AND MOLECULAR BIOLOGY (BIC)

Enzymes and Proteins. 3 hrs. I.
Structure and function of enzymes and proteins, including proteomics, purification, assay, kinetics, molecular chaperones, protein degradation, engineering, and current literature concerning enzymes important in the cell cycle and gene regulation. (PR: Biochemistry and consent)

Nucleic Acids and Protein Synthesis. 3 hrs. II.
An advanced course in molecular biology and molecular genetics emphasizing current research in these areas. (PR: Biochemistry and consent of instructor)

Molecular Signal Transduction. 3 hrs.
An advanced exploration of the newest information on cellular signalling pathways. Special emphasis will be placed on current literature in following signal transduction from the plasma membrane to the nucleus. (PR: BMS 600 or equivalent)

Special Topics. 1-4 hrs.
Present course material on special areas of research or topics which are not routinely covered in existing courses.

BIOLOGICAL SCIENCES (BSC)

Ichthyology. 4 hrs. II. (Alternate years)
Anatomy, physiology, ecology, zoogeography, economic importance and classification of major groups and representative local species of fishes. 2 lec-4 lab and field. (PR: BSC 120-121, 214 or 310)

Cellular Physiology. 4 hrs.
The physio-chemical nature of intracellular processes in plant and animal cells with emphasis on the functional significance of microscopic and submicroscopic structure and organization. 3 lec-3 lab. (REC: Background in chemistry and physics; PR: 12 hours biological sciences)

Economic Botany. 3 hrs.
Plants used by man for food, ornamental purposes, building materials, textiles and other industrial purposes: economic importance of conservation. No laboratory. (PR: BSC 120-121 or equivalent)

Herpetology. 4 hrs. II, (Alternate years)
A survey of the reptiles and amphibians of the world with special emphasis placed on forms resident to West Virginia including aspects of zoogeography, morphology, taxonomy, and behavior. 2 lec-4 lab. (PR: BSC 120-121, 214)

Genetics. 4 hrs. I, II.
The fundamental principles and mechanisms of inheritance. 3 lec-4 lab. (PR: BSC 120-121 or equivalent)

Ornithology. 4 hrs. II, (Alternate years)
An introduction to avian biology: Identification, distribution, migration and breeding activities of birds. 2 lec-4 lab. (PR: BSC 120, 121; REC: BSC 214)

Mammalogy. 4 hrs. I (Alternate years).
Study of morphology, evolution and classification, zoogeography, ecology, economic importance; survey techniques and recognition of native mammals of West Virginia. (PR: BSC 121 plus an additional 8 hours of BSC courses)

Remote Sensing/GIS Applications. 4 hrs. I.
A study of the physical systems for collecting remotely sensed data. Statistical/spatial analysis and modeling using image processing/geographic information/spatial computer software systems with earth resources applications. (PR: PHY 203-204, MTH 225 or permission)

Digital Image Processing/GIS Model. 4 hrs. II.
A study of image processing/geographic information/spatial analysis systems, concurrent and parallel image processing 3-D modeling scenarios utilizing geophysical data for computer simulation modeling. (PR: BSC/PS 410 or BSC 510)

Biogeography. 3 hrs.
Biogeography studies distributions of animals and plants in space and time; it combines knowledge from evolutionary biology, ecology, zoology, botany, and conservation science with basics of physical geography and geology.

Principles of Organic Evolution. 3 hrs. II.
The facts and possible mechanisms underlying the unity and diversity of life with emphasis on Neo-Darwinian concepts of the role of species in evolutionary phenomena. (PR: 16 hours BSC)

Entomology. 4 hrs.
Entomology, anatomy, physiology, identification, classification, life histories and economic importance of representative insect groups. 2 lec-4 lab. (PR: BSC 120-121 or equivalent)

Morphology of Plants and Fungi. 4 hrs. I, II, S.
Form, structure, and development of plants and fungi. 2 lec-4 lab. (PR: BSC 120, 121 or equivalent)

Plant Taxonomy. 4 hrs. I, II, S.
Identification and classification of seed plants and ferns of eastern United States. Readings in history and principles of taxonomy, rules of nomenclature and related topics. 2 lec-4 lab. (PR: BSC 120-121 or equivalent)
517 Biostatistics. 3 hrs.
Statistical skills for biological/biomedical research, with emphasis on applications. Experimental design/survey sampling, estimation/hypothesis testing procedures, regression, ANOVA, multiple comparisons. Implementation using statistical software such as SAS, BMDP. Same as MTH 518. (PR: Permission)

518 Mycology. 4 hrs. I.
Nature, cause and control of plant diseases. 2 lec-4 lab. (PR: BSC 120-121)

519 Plant Anatomy. 4 hrs. II.
Investigations in plant anatomy with emphasis on seed plants. 2 lec-4 lab. (PR: BSC 120 and 121 or permission)

520 Plant Physiology. 4 hrs. II. (Alternate years)
Experimental study of plant life processes to include applicable biophysical and biochemical principles, water relations, molecular biology, stress physiology, and growth and development. (PR: BSC 322 or equivalent)

521 Physiology. 4 hrs.
Taxonomy and morphology of algae. Techniques used in the study of algae with emphasis upon application of ecological principles to current water quality problems. 2 lec-4 lab. (PR: BSC 105 or 121)

522 Animal Physiology. 4 hrs. I.
Physiological principles operating in cells, organs, and systems of animals, with a focus on vertebrate, including human, function. (PR: BSC 322; CHM 355; MTH 140 or 152 or 229; or permission)

524 Animal Parasitology. 4 hrs. I, S.
Morphology, life histories, classification, and host relationships of common parasites. 2 lec-4 lab. (REC: BSC 212 or equivalent)

525 Systematics. 3 hrs.
Biosystematics is a unifying discipline that combines taxonomy (collecting, describing and naming organisms), phylogenetics (evolutionary relationships among species), and classification (organization of taxa into groups which ultimately reflect evolutionary relationship.

526 Medical Entomology. 4 hrs. II, S.
The characteristics and control of certain insects and other arthropods which transmit disease-causing organisms. 2 lec-4 lab. (REC: BSC 212 or equivalent)

528 Neuroscience. 3 hrs.
The fundamentals of cellular and systems neuroscience, with application toward understanding current research and biomedical problems.

530 Plant Ecology. 4 hrs. II.
The study of plants and their interactions with their environment at different levels of ecological organization: individuals, populations, communities, and ecosystems. Emphasis on quantitative analysis of ecological data.

531 Limnology. 4 hrs. I, S.
The study of inland waters; ecological factors affecting lake and stream productivity and various aquatic communities. 2 lec-4 lab. (PR: BSC 120-121 or equivalent; REC: BSC 212)

542 Advanced Microbiology. 4 hrs.
An advanced treatment of microbiology with emphasis on the molecular aspects of anatomy, taxonomy, and physiology of microorganisms. 2 lec-4 lab. (PR: BSC 302)

543 Microbial Genetics. 3 hrs.
Microbial Genetics covers the essential functions of DNA replication and gene expression in procaryotic cells. The course includes molecular genetics of bacteria and phages, bioinformatics and discussion of laboratory techniques.

545 Microbial Ecology. 3 hrs. II.
This course introduces students to the vital roles that microbes play in sustaining life on earth. Includes both theoretical and practical concepts ranging from the origin of life to biodegradation. (PR: BSC 121 or permission)

546 Microbial Ecology Lab. 2 hrs. II.
A laboratory course emphasizing the recovery, cultivation, enumeration, and identification of bacteria from environmental samples. Also introduces students to molecular-based methods for studying microbial community structure and dynamics. (PR: BSC 121; CR: BSC 545 or consent)

550 Molecular Biology. 3 hrs. II.
Advanced principles in molecular function emphasizing current research using recombinant DNA methodology. (PR: BSC 322 or equivalent)

556 Genes and Development. 3 hrs.
An in-depth study of the genetic mechanisms of complex organismal development including cell specification, induction and morphogenesis. (PR: BSC 324 or BSC 322 or equivalent)

560 Conservation of Forests, Soil and Wildlife. 3 hrs. I.
Primarily for students in the biological sciences, general and applied sciences. Includes fieldwork, seminars, and demonstrations related to conservation. 2 lec-4 lab. (PR: BSC 105 or 121 or equivalent)

580-583 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.
(PR: Permission)

585-588 Independent Study. 1-4; 1-4; 1-4; 1-4 hrs. CR/NC
(PR: Permission)

601 Vertebrate Embryology. 4 hrs. I.
Vertebrate development based on frog, chick and pig embryos. 2 lec-4 lab.

608 Plant Physiology: Growth and Development. 4 hrs. II. (Alternate years)
Comprehensive advanced study of correlative growth in plants with emphasis on germination, dormancy, growth substances and physiological phenomena associated with phases of development. (PR: BSC 322 or 420 or 520)

610 Advanced Vertebrate Morphology. 3 hrs.
AVM is an intensive, laboratory-based course in vertebrate morphology. Core responsibilities include detailed dissection and comparative cranial osteology. Each student must complete an independent dissection project and term paper. (PR: biology core)

620-622 Taxonomy of Vascular Plants. 1-2; 1-2; 1-2 hrs.
Field studies in the taxonomy of higher plants. Limited to 4 hours credit per student). (PR: BSC 516 or equivalent)

625 Advanced Physiology. 4 hrs.
Lecture, current literature and introduction to research in physiological systems. 3 lec-3 lab. (PR: 4 hrs. physiology or permission)

626 Protozoology. 4 hrs. (Offered every third semester)
A study of free-living and parasitic protozoa important to agriculture, wildlife, and man. Morphology, physiology, reproduction, ecology, and life histories of parasitic protozoa will be emphasized.

631 Animal Ecology. 4 hrs. I.
A study of population and behavior ecology; community dynamics and field techniques. 2 lec-4 lab.

640 Cell Biology and Biotechnology. 3 hrs.
Broad coverage of applied cell biology, biotechnology with high current interest and utility to the medical, agricultural and commercial product development. Application of DNA technologies for biotech communication. (PR: BSC 322 or equivalent)
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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>650-652</td>
<td>Special Problems</td>
<td>1-3; 1-3; 1-3 hrs.</td>
<td>By permission of adviser, graded CR/NC.</td>
</tr>
<tr>
<td>660</td>
<td>Introductory Graduate Seminar</td>
<td>2 hrs.</td>
<td>Topics relevant to preparation for a career in the life sciences including: literature mining and interpretation, scientific ethics, preparation and delivery of scientific presentations, and career development tools.</td>
</tr>
<tr>
<td>661</td>
<td>Seminar I.</td>
<td>2 hrs. I</td>
<td>In depth group discussion of current biological issues.</td>
</tr>
<tr>
<td>662</td>
<td>Seminar II.</td>
<td>1 hr. II</td>
<td>Oral presentation of individual topics. (PR: BSC 661)</td>
</tr>
<tr>
<td>679</td>
<td>Problem Report</td>
<td>1-4 hrs.</td>
<td>Preparation and completion of a written report from experimental or field research in biological sciences. (PR: permission)</td>
</tr>
<tr>
<td>680</td>
<td>Special Topics</td>
<td>1-4 hrs.</td>
<td>(PR: By permission of advisor).</td>
</tr>
<tr>
<td>681</td>
<td>Thesis</td>
<td>1-12 hrs.</td>
<td>Oral presentation of individual topics. (PR: BSC 661)</td>
</tr>
<tr>
<td>682</td>
<td>Seminar II.</td>
<td>1 hr. II</td>
<td>In depth group discussion of current biological issues.</td>
</tr>
<tr>
<td>691</td>
<td>Cellular Physiology for Nurse Anesthesia</td>
<td>2 hrs.</td>
<td>Study of structure and function of human cells, including protein synthesis, metabolism and reproduction, Study of genetic disorders and anesthesia, Study of anti-cancer drugs. (PR: Admission to DMPNA program)</td>
</tr>
<tr>
<td>717</td>
<td>Anatomy and Physiology I for Nurse Anesthesia</td>
<td>3 hrs.</td>
<td>Anatomy, physiology, pathophysiology, and anesthetic considerations related to respiratory and renal systems. (PR: Admission to DMPNA program)</td>
</tr>
<tr>
<td>718</td>
<td>Anatomy and Physiology II for Nurse Anesthesia</td>
<td>3 hrs.</td>
<td>Anatomy, physiology, pathophysiology, and anesthetic considerations related to cardiovascular system. (PR: Admission to DMPNA program)</td>
</tr>
<tr>
<td>719</td>
<td>Anatomy and Physiology III for Nurse Anesthesia</td>
<td>3 hrs.</td>
<td>Anatomy, physiology, pathophysiology, and anesthetic considerations related to the nervous and endocrine systems. (PR: Admission to DMPNA program)</td>
</tr>
</tbody>
</table>

**BIOMEDICAL SCIENCE (BMS)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>600</td>
<td>Biochemical, Cellular and Molecular Foundations of Biomedical Science</td>
<td>7 hrs. I</td>
<td>A study of the structure and metabolism of biological compounds, the molecular biology of the cell, and the interactions of cell components. (PR: One year of Biology and Organic Chemistry and consent of instructor)</td>
</tr>
<tr>
<td>601</td>
<td>Introduction to Nucleic Acids and Proteins</td>
<td>3 hrs.</td>
<td>A molecular and cell biological study of the structure and function of nucleic acids and proteins. (PR: Consent of instructor)</td>
</tr>
<tr>
<td>602</td>
<td>Introduction to Cell Structure and Metabolism</td>
<td>3 hrs.</td>
<td>A molecular and cell biological study of the structure of cells and of cellular metabolism. (CR: BMS 601; PR: Consent of instructor)</td>
</tr>
<tr>
<td>603</td>
<td>Regulation of Cell Function</td>
<td>2 hrs.</td>
<td>An advanced molecular and cell biological study of cell metabolism and the regulation of cell function. (PR: BMS 601, BMS 602, and consent of instructor)</td>
</tr>
<tr>
<td>604</td>
<td>Cellular Basis of Disease</td>
<td>1 hr.</td>
<td>A molecular and cell biological study of the basis of diseases prevalent in Appalachia. (PR: BMS 601, BMS 602, and consent of instructor)</td>
</tr>
<tr>
<td>617</td>
<td>Statistical Techniques for the Biomedical Sciences</td>
<td>3 hrs.</td>
<td>An advanced course in statistical concepts and techniques aimed at prospective researchers in the biomedical sciences.</td>
</tr>
<tr>
<td>628</td>
<td>Neuroscience I: Major Structures of the Brain, Neuron Function, and Spinal Cord</td>
<td>3 hrs.</td>
<td>To study and understand the structure and function of the nervous system and disorders of neuronal function. (PR: BMS 600 or permission of instructor)</td>
</tr>
<tr>
<td>629</td>
<td>Neuroscience II: Structures and Functions of the Brain Stem and Forebrain</td>
<td>3 hrs.</td>
<td>To study and understand the structure and function of the nervous system and disorders of neuronal function. (BMS 628 or permission of instructor)</td>
</tr>
<tr>
<td>631</td>
<td>Neuroscience and Developmental Biology Literature Review</td>
<td>1 hr.</td>
<td>A seminar course where published articles in the fields of neuroscience and developmental biology will be presented by students and faculty. (PR: Permission of instructor)</td>
</tr>
<tr>
<td>632</td>
<td>Neuroscience Research Techniques</td>
<td>3 hrs.</td>
<td>Class participants will be exposed to state-of-the-art neuroscience research techniques while in the laboratories of the neuroscience faculty. (PR: Permission of instructor)</td>
</tr>
<tr>
<td>641</td>
<td>Molecular Developmental Biology</td>
<td>3 hrs.</td>
<td>An in-depth discussion of current literature in developmental biology with emphasis on early embryo development, morphogenesis, lineage determination and regulation of developmental processes. (PR: Permission of instructor)</td>
</tr>
<tr>
<td>644</td>
<td>Responsible Conduct of Research</td>
<td>1 hr. CR/NC.</td>
<td>Responsible conduct of research, including human subjects, live vertebrate animals, conflict of interest, mentor/mentee responsibilities, collaborative research, peer review, data management, research misconduct, and responsible authorship, with case discussions.</td>
</tr>
<tr>
<td>651</td>
<td>Cancer Biology</td>
<td>4 hrs.</td>
<td>An advanced graduate course on the core principles of initiation, progression, treatment and prevention of cancer, based on current literature. (PR: BMS 600, and permission of instructor)</td>
</tr>
<tr>
<td>652</td>
<td>Cancer Biology Colloquium</td>
<td>1 hr.</td>
<td>This is a mentored journal club for graduate students covering selected areas of current interest in cancer biology research. (PR: Permission of instructor)</td>
</tr>
<tr>
<td>660</td>
<td>Communication Skills for Biomedical Sciences I</td>
<td>1 hr.</td>
<td>Biomedical graduate students are trained to plan, prepare, and deliver effective scientific presentations.</td>
</tr>
<tr>
<td>661</td>
<td>Communication Skills for Biomedical Sciences II</td>
<td>1 hr.</td>
<td>Biomedical graduate students are trained to plan, prepare, and deliver effective scientific presentations.</td>
</tr>
<tr>
<td>665</td>
<td>Cardiovascular Disease, Obesity, Diabetes Research Colloquium</td>
<td>1 hrs. CR/NC.</td>
<td>A seminar-style series that will focus on recent advances in topics related to cardiovascular disease, diabetes and obesity.</td>
</tr>
<tr>
<td>674</td>
<td>Teaching Practicum</td>
<td>1 hr. CR/NC.</td>
<td>Students gain experience in teaching using a variety of methods in a supervised setting.</td>
</tr>
<tr>
<td>679</td>
<td>Special Problems</td>
<td>I, II, S. CR/NC.</td>
<td>Intensive study of a selected topic or problem. Emphasizes independent study. (PR: Consent of advisor)</td>
</tr>
<tr>
<td>680</td>
<td>Seminar</td>
<td>1 hr. I, II, CR/NC.</td>
<td>Study and discussion of current topics related to the Biomedical Sciences.</td>
</tr>
<tr>
<td>681</td>
<td>Thesis</td>
<td>1-6 hrs. I, II, S. CR/NC.</td>
<td>Study and discussion of current topics related to the Biomedical Sciences.</td>
</tr>
</tbody>
</table>
785 Introduction to Research. 1-6 hrs. I, II, S. CR/NC
Directed research activities requiring a completed prospectus for an advanced research project, a written report, or a research thesis. A minimum of three (3) hours required for all M.S. candidates. (PR: Consent of instructor)


CHEMICAL ENGINEERING (CHE)

650-653 Special Topics. 1-4 hrs.
Designed to increase the depth of study in a specialized area of chemical engineering. (PR: Consent)

CHEMISTRY (CHM)

510 Advanced Synthesis and Analysis. 4 hrs.
Advanced problems in synthesis, separation and analysis with emphasis on modern instrumental methods. 1 lec-6 lab. (REC: CHM 356 or equivalent)

511 Modern Instrumental Methods in Chemistry and Biochemistry. 4 hrs.
This course investigates the theory and functional aspects of modern analytical instrumentation. Emphasis is placed on components of instruments and the applicability of various techniques to specific analytical problems.

520 Fundamentals of Chemistry. 4 hrs. S. Offered on demand.
An introductory chemistry course for College of Education and Professional Development graduate students.

522 Spectrophotometric Methods of Analysis. 3 hrs.
Modern theories and methods of spectrophotometric analysis, including atomic absorption, infrared, UV-visible and colorimetric methods. 1 1/2 lec.-3 lab. (PR: CHM 345 and 307 or 358)

523 Environmental Analytical Chemistry. 4 hrs.
Sampling and modern instrumental analysis of water, air and sediments according to EPA methodology. (PR: Graduate standing; C or better in CHM 345 or equivalent experience.)

526 Chromatographic Methods of Analysis. 3 hrs.
Modern theories and methods of chemical separations with emphasis on gas and liquid chromatography. (PR: 345, 356, 307 or 357) 2 lec.-2 lab.

530 Introduction to Polymer Chemistry. 3 hrs.
Properties of macromolecules. Methods of preparation and characterization. Industrial applications and processes. (PR: CHM 307 or 357, and 356 or permission of instructor)

540 Thermodynamics. 3 hrs.
An introduction to chemical thermodynamics and statistical mechanics. (REC: CHM 358 or equivalent)

542 Quantum Mechanics. 3 hrs.
An introductory course in quantum mechanics. (REC: MTH 231 or equivalent)

548 Advanced Inorganic Chemistry I. 4 hrs.
Study of physical properties and periodic relationships of inorganic materials. 3 lec.-2 lab. (PR: CHM 356 and 307 or 357)

549 Advanced Inorganic Chemistry II. 3 hrs.
A detailed consideration of bonding, structure, reaction rates and equilibrium involving inorganic materials. (PR: CHM 448 or equivalent)

550 Industrial Chemistry. 3 hrs.
Modern industrial processes for making chemicals, with emphasis on petrochemicals. An introduction to the engineering, economic, and environmental aspects of these processes. (PR: CHM 307 or 357, and 356 or permission of instructor)

551 Biological Mass Spectrometry. 4 hrs.
This course investigates the theory and applications of mass spectrometry. It includes a laboratory component in which you will learn to run the mass spectrometers and interpret mass spectral results.

553 Magnetic Resonance in Chemistry. 3 hrs.
Applications of analysis by magnetic resonance. Emphasis will be placed on proton and heteronuclear magnetic resonance theory and applications. 2 lec.-2 lab. (PR: CHM 356)

562 Nuclear Chemistry and Physics. 3 hrs.
An introduction to the phenomena of nuclear physics and chemistry. (REC: MTH 231 or equivalent)

563 Nuclear Chemistry and Physics Laboratory. 2 hrs. 4 lab.
(REC: CHM 462 or equivalent)

565 Advanced Organic Chemistry I. 3 hrs. I.
Studies of the dynamics of organic reactions with emphasis on mechanisms and stereochemistry. (REC: CHM 356 or equivalent)

566 Advanced Organic Chemistry II. 3 hrs.
A continuation of Chemistry 565 with emphasis on synthetic methods. (PR: CHM 565)

567 Intermediate Biochemistry. 3 hrs.
A survey course including introduction to basic biochemical concepts, bioenergetics and information transfer.

580-583 Special Topics. 1-4; 1-4; 1-4 hrs.
585-588 Independent Study. 1-4; 1-4; 1-4 hrs.
604 Theories of Analytical Chemistry. 2 hrs.
Offered on demand. (PR: CHM 556)

607 Theoretical Organic Chemistry. 2 hrs.
The application of quantitative methods to problems in structure and dynamics. (PR: CHM 565)

618 Kinetics. 3 hrs.
An advanced study of reaction rates and mechanisms.

627 Physical Chemistry for Teachers. 3-5 hrs. S.
Offered on demand. 3 lec-6 lab. (PR: CHM 520 or equivalent)

628 Special Topics (Inorganic). 1-3 hrs. Offered on demand.

629 Special Topics (Organic). 1-3 hrs. Offered on demand

630 Special Topics (Physical). 1-3 hrs. Offered on demand

631-632 Seminar. 1; 1 hr. I, II.

678 Applied Microscopy in Research. 4 hrs.
Catalog Description: A combined lecture/lab/self-motivated research course that results in a microscopy-based project to be presented by each student at an open forum (can augment thesis project). (PR: instructor permission)

679 Problem Report. 3 hrs.
Preparation of a comprehensive written report on a topic in Chemistry of current importance. Registration only by permission of Department.

685-688 Independent Study. 1-4 hrs.
Individual study of topics not offered in regularly scheduled classes.
Research. 1-12 hrs. I, II, S.
Credit in the course is earned by pursuing a directed original investigation in a field of chemistry. Twelve semester hours credit in research are applied toward the M.S. degree. Students may sign for one or more credit hours per semester depending upon the time to be spent on research. A grade of PR may be reported at the close of each term or semester. (PR: Approval of Department Chairman)

Chemistry and Physics for Nurse Anesthesia. 3 hrs.
Scientific principles and chemical application of properties of matter, gas laws, vaporization, fluid dynamics, explosion hazards, electrical safety, acid-base balance, blood gas analysis, biochemistry in anesthesia, mechanisms of narcosis. (PR: Admission to DMPNA program)

CIVIL ENGINEERING (CE)

Geometric Design of Highways. 3 hrs.
Highway planning and design, including the capacity, horizontal alignment, vertical alignment, roadside design, traffic control, and other related aspects. Types of facilities discussed will include roadways, sidewalks, intersections, and interchanges.

Pavement Design. 3 hrs.
Design of highway pavement systems, subgrades, subbases and bases, soil stabilization, flexible and rigid pavements, cost analysis and pavement selection, traffic data collection, drainage, earthwork, pavement evaluation and maintenance.

Structural Steel Design and Behavior. 3 hrs.
Principles and methodologies for conceptual and detailed design of steel structures emphasizing LRFD. Topics include behavior and design of hot-rolled/cold-formed steel, connections, members, frames, plate girders, and advanced analysis techniques.

Advanced Reinforced Concrete Structure Design and Behavior. 3 hrs.
Background of modern reinforced concrete design procedures. Comparison of standard design codes. Review of research on behavior of reinforced concrete structures and projection of future changes in design and construction practices.

Prestressed Concrete Design. 3 hrs.
Design of prestressed concrete structures, methods and losses. Design for flexure, shear, torsion, camber, deflections, continuity, connections, fire rating, and review of research and projection of changes in construction practices.

Bridge Engineering. 3 hrs.
An overview of design of highway bridges, and an introduction to maintenance of highway bridges, including the history of bridge engineering, types, design rules, loads, inspection, rating, preventive maintenance and aesthetics. (PR: CE 616 and advisor approval)

Traffic Engineering. 3 hrs.
Design and application of signs, markings and signals. Timing of isolated and interconnected signals, speed regulation, one-way streets, capacity and analysis of highway facilities.

Evaluation of Transportation Systems. 3 hrs.
Concepts of transportation economic analysis, transportation costs and benefits, needs studies, finance and taxation, methods of evaluation of plans and projects and environmental impact assessment.

Transportation Planning. 3 hrs.
Techniques used to plan urban transportation systems, data collection, trip generation, trip distribution, mode choice, traffic assignment, modeling, evaluation techniques and travel demand modeling.

Highway Safety Engineering. 3 hrs.
Traffic safety studies including crash analysis, control and geometry improvements, hazard and counter measured identification, before-and-after studies, data collection and computer tools for highway safety and traffic evaluation.

Special Topics. 3 hrs.
Formal study of civil engineering topics of current interest. (PR: advisor approval)

Civil Engineering Research. 1-6 hrs.
Directed research in fields of study relevant to civil engineering including transportation, structural analysis, environmental engineering and engineering management. A limit of six semester hours credit may be applied toward the M.S.E. degree with permission of the student's advisor. (PR: Advisor approval)

CLASSICS (CL)

Greek Civilization. 3 hrs.
Study of ancient Greek culture, emphasizing parallels with present-day issues.

Roman Civilization. 3 hrs.
Study of ancient Roman culture, emphasizing parallels with present-day issues.

Ancient Goddess Religions. 3 hrs.
Study of the mythology and cults of the goddesses of Greece, Crete, Asia Minor and Rome, with a view to discovering cultural contexts.

Transformations of Myth. 3 hrs.
An examination of how ancient myth transforms into the psychological and fictional works of more modern times.

Roman Law. 3 hrs.
Taught in English, this course provides an introduction to the basic tenets of Roman Law, with particular attention to court cases and speeches.

Special Topics in Classics. 1-4; 1-4; 1-4 hrs.
(PR: Consent of the instructor)

Independent Study. 1-4; 1-4; 1-4 hrs.

Humanities Seminar. 3 hrs.

Theoretical Approaches to Ancient Literature. 3 hrs.
A close study of ancient and modern literary approaches to and theories about ancient literature with emphasis on genre and cultural contexts.

COMMUNICATION DISORDERS (CD)

Professional Literacies for the SLP. 3 hrs.
Investigation into contemporary understandings of literacy using current communication and information technologies and resources.

Communication Disorders of School Children. 3 hrs.
A survey of the causes, symptoms, and treatment of communication disorders encountered in the classroom. Not open to communication disorders majors.

Diagnostic Processes with Communication Disorders. 3 hrs.
Evaluation of procedures for securing behavioral information to differentiate among various communication disorders; a study of symptom complexes. (PR: Permission of instructor and graduate standing)

Diagnostic Processes with Communication Disorders. 3 hrs.
Observation and practice in evaluating individuals with communication disorders (PR: Permission of instructor and graduate standing)
670L Clinical Issues in Health Care. 1 hr.
Examination of the principles of assessment and treatment for special populations with a focus on the interacting processes of the sensory,
670 Advanced Clinical Practicum I. 3 hrs.
Examination of therapeutic procedures relative to speech and language disorders. Investigation into the clinician’s role in case management as well as
behavior management techniques. (PR: Permission of instructor and graduate standing)
670L Advanced Clinical Practicum Laboratory II. 1 hr.
Observation and in-depth analysis of the clinical process. (PR: Permission of instructor and graduate standing)
560 Basic Audiology. 3 hrs.
Introduction to the profession of audiology, examination of the auditory system, preferred practice procedures for screening/assessment, examination of hearing disorders and their management. Includes laboratory. (PR: Permission of instructor)
561 Sign Language for the SLP. 3 hrs.
Introduction to basic signs and finger spelling. Overview of different sign systems.
562 Sign Language for the SLP II. 3 hrs.
This course will focus on the continuation of exposure to sign language and deaf culture and the various techniques of manual communication. (PR: CD 561)
563 Aural Rehabilitation. 3 hrs.
Examination of various intervention strategies appropriate for individuals with hearing impairments; techniques for assessing degree of handicap. (PR: Permission of instructor)
570 Clinical Practicum I. 1-3 hrs.
Supervised clinical practicum in the Marshall University Speech and Hearing Center or other site with a faculty member from Marshall University Dept. of Communication Disorders. (PR: Permission of instructor)
570L Introduction to Clinical Principles. 1 hr.
This seminar will present the basic clinical principles and procedures including, but not limited to, professional communication, documentation, evidence-based practice, HIPAA compliance and safety issues within the MUSHC. (CR: CD 570)
571 Clinical Practicum II. 1-3 hrs.
Supervised clinical practicum in the Marshall University Speech and Hearing Center or other site with a faculty member from Marshall University Department of Communication Disorders. (PR: CD 570, Permission of instructor)
571L Clinical Principles of Assessment. 1 hr.
This lab/seminar corresponds with CD 571 and will present the basic clinical principles and procedures related to the evaluation process of individuals with communication and swallowing disorders. (PR: CD 570L; CR: CD 571)
580-583 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.
This course will discuss current professional issues in speech-language pathology, including ethics, reimbursement, multiculturalism, counseling, professional conduct, advocacy, and scope of practice. (PR: Permission of Instructor)
585-588 Independent Study. 1-4 hrs.
This seminar will present principles related to clinical services in speech-language pathology in a variety of health care settings. (PR: CD 571 according to American Speech-Language-Hearing Association’s standard regarding application of practicum credits to master’s degree programs) (PR: CD 561)
601 Introduction to Graduate Studies. 3 hrs.
An introduction to graduate studies, including clinical and research applications; quantitative and qualitative research methodology; critical analysis of clinical instruments and research literature. (PR: Permission of instructor)
602 Professional Issues in Speech-Language Pathology. 2 hrs.
This course will discuss current professional issues in speech-language pathology, including ethics, reimbursement, multiculturalism, counseling, professional conduct, advocacy, and scope of practice. (PR: Permission of Instructor)
620 Communicative Disorders Related to Cleft Palate and Voice. 3 hrs.
Intensive study of the anatomy and physiology of laryngeal and maxillofacial structures; voice production and resonance; nature and etiology of voice and resonance disorders; principles of assessment and treatment. (PR: Permission of instructor)
622 Phonological Processes and Disorders. 3 hrs.
Advanced study of the phonological component of the linguistic system. Emphasis on phonological disorders in children; social dialects; critical analysis of literature. (PR: Permission of instructor)
623 Fluency Disorders. 3 hrs.
Detailed evaluation of theories of fluency disorders and relevant therapies; critical analyses of research literature. (PR: Permission of instructor)
624 Foundations in Neurogenic Communication and Swallowing Disorders. 3 hrs.
Study of anatomy/physiology of the nervous and motor systems for communication and swallowing; foundational principles of service provision for people with neurologically based disorders. (PR: permission of instructor)
625 Acquired Aphasia. 3 hrs.
Advanced study of the acquired aphasia; critical analysis of research literature. (PR: Permission of instructor)
628 Child Language Disorders: Infancy through Preschool. 3 hrs.
Advanced study of the characteristics and etiology of language disorders in young children. Special emphasis will be placed on diagnosis and treatment of young children with language disorders. Helping children with language disorders acquire the oral language skills they need to successfully acquire literate language also will be covered (PR: Permission of instructor)
629 Child Language Disorders: SchoolAge through Adolescence. 3 hrs.
Advanced study of the characteristics and etiology of language disorders in school-aged and adolescence children. Special emphasis will be placed on diagnosis and treatment of language disorders in these children (PR: Permission of instructor)
630 Cognitive Communication Disorders. 3 hrs.
Intensive study of the nature and etiology of communication disorders associated with traumatic brain injury, right hemisphere lesions, dementia, and other neuropathologies; diagnosis and treatment; critical analysis of research literature. (PR: Permission of instructor)
650-653 Special Topics. 1-4 hrs.
Program of study not normally covered in other courses. Topics vary from semester to semester. (PR: Permission of chair)
660 Special Populations: Clinical Considerations. 3 hrs.
Examination of the principles of assessment and treatment for special populations with a focus on the interacting processes of the sensory, behavioral, physical, and communicative systems. (PR: Permission of instructor)
670 Advanced Clinical Practicum I. 3 hrs.
Supervised clinical practicum in the Marshall University Speech and Hearing Center and in affiliated educational, rehabilitation and medical settings with graded credit. (CD 670 may be repeated but only a total of six hours may be applied to a master’s degree in accordance with the American Speech-LanguageHearing Association’s standard regarding application of practicum credits to master’s degree programs) (PR: CD 571 or permission of instructor)
670L Clinical Issues in Health Care. 1 hr.
This seminar will present principles related to clinical services in speech-language pathology in a variety of health care settings.
674 Clinical Practicum in the Schools. 1 hr.
This course is a supervised clinical practicum with school-aged children; fulfills student teaching requirements for West Virginia certification as a Speech Language Pathologist. (PR: Permission of instructor)

674L Clinical Issues in Health Care. 1 hr.
This lab/seminar will present special considerations related to providing services in speech-language pathology in the public school setting. (PR: CD 571L; CR: CD 674)

675 Advanced Clinical Practicum II. 1 hr.
This is the graduate clinical capstone experience which includes a supervised clinical practicum in the MUSHC and affiliated education, rehabilitation and medical settings. (PR: CD 670, CR: 675L)

675L Professional Considerations. 1 hr.
This lab corresponds with CD 675, the graduate clinical capstone, and will provide a forum for students to solidify knowledge and skills for professional practice. (PR: CD 674; CR: CD 675)

681 Thesis. 1-6 hrs. I., II.
(PR: Permission of chair)

585-588 Independent Study. 1-4; 1-4; 1-4 hrs.
(PR: Permission of chair)

691 Motor Speech and Swallowing Disorders. 3 hrs.
Study of the nature, assessment, and treatment of dysarthrias, apraxias, and dysphagia, including critical analysis of the literature. (PR: CD 624 or permission of instructor)

690,692-3 Seminar. 1-4; 1-4; 1-4 hrs.
Topics in communication disorders not covered in other courses; topics vary from semester to semester. (PR: permission of chair)

COMMUNICATION STUDIES (CMM)

501 Organizational Communication. 3 hrs.
Investigation of information flow in organizations with emphasis on identifying communication problems.

502 Rhetorical Theory. 3 hrs.
An exploration of theories of rhetoric from the Greek philosophers to the present. This course will examine the strategic use of symbols in persuasive discourse.

504 Rhetorical Communication Criticism. 3 hrs.
An examination of the construction of situated rhetorical texts and the effects they produce.

506 Interviewing. 3 hrs.
Skill development in the question-answer-response process as it applies to a variety of interviewing situations.

508 Leadership and Group Communication. 3 hrs.
A study of the variables affecting, and affected by, the communication process in small groups, with particular emphasis upon leadership variables.

509 Theories of Persuasion and Change. 3 hrs.
Study of the relationship between persuasion and social change, including theories of attitude and behavioral change and contemporary theories of persuasion.

511 Communication Study and Research. 3 hrs.
Introduction to the advanced study of theory and research areas with emphasis on communication research methods and reporting.

513 Theories of Interpersonal Communication. 3 hrs.
A survey and analysis of theories related to interpersonal communication in relationships. Emphasis is on the communication processes and contingencies underlying relationship development, maintenance, and disengagement in various interpersonal contexts.

521 Gender and Communication. 3 hrs.
An exploration of gender as an organizing principle for communication.

541 Development and Appreciation of Film Since 1930. 3 hrs.
A study of important directions in modern film, including style, genre, and the relationship to contemporary society. A variety of films will be viewed for analysis.

550 Direction of Speech Activities. 3 hrs.
Direction of extracurricular speech activities/assemblies, forensic events, etc. (PR: 15 hours of Communication Studies or permission)

556 Computer-Mediated Communication. 3 hrs.
This course explores the impact of computer-mediated communication on human organization. (PR: E-mail capability; web search capability)

576 Communication for Classroom Teachers. 3 hrs.
Knowledge and utilization of interpersonal communication skills in all teaching-learning environments.

580-583 Special Topics. 1-4; 1-4; 1-4 hrs.
(PR: Permission of chair)

585-588 Independent Study. 1-4 hrs.
(PR: Permission of chair)

597-598 Instructional Television Course. 1-4 hrs.
A course based upon Instructional Television Series broadcast by public television. The student is responsible for viewing the series on the air and satisfying all course requirements announced by the department.

601 Problems and Methods in Communication Research. 3 hrs.

602 Communication Consultation Strategies. 3 hrs.
An in-depth analysis of diagnostic and intervention strategies employed by communication consultants. Strategies include communication network analysis, communication process observation and consultation, communication role and norm negotiation, and team building.

603 Nonverbal Communication. 3 hrs.
Examines the major dimensions and functions of nonverbal communication with a focus on what constitutes nonverbal competence in a variety of contexts.

605 Qualitative Research Methods. 3 hrs.
This course provides an introduction to qualitative research methods and their application in communication studies.

606 Studies in Communication Theory. 3 hrs.
An extensive investigation into the major concepts of contemporary communication theory.

620 Communication and Conflict. 3 hrs.
An exploration of the theory, research, and practice of communication in understanding and negotiating interpersonal conflict.

650 Leaders and Movements in Communication Education. 3 hrs.
The study of speech-communication education from the time of the Greeks to the present, with emphasis upon the evolution of communication education to meet the needs of contemporary society.
656 Seminar in Public Communication. 3 hrs.
670 Interpersonal Health Communication. 3 hrs.
Investigates communication in establishing effective interactions between health providers, patients, and families. Explores theories and findings in relationship development, decision making, intercultural communication, social support, advocacy, and family relationships.

671 Health Communication Campaigns: Strategies and Processes. 3 hrs.
Examines communication processes that influence human behavior and public policy through health promotion campaigns, including theories and practices of health behavior change and designing, implementing, and evaluating health communication interventions.

673 Seminar in Interpersonal Communication. 3 hrs.
Intensive treatment of principles and processes underlying dyadic communication. Designed to enable the student to diagnose and intervene to resolve communication problems.

674 Seminar in Communication Pedagogy. 3 hrs.
Primarily for graduate teaching assistants to develop instructional skills of preparation, presentation and evaluation; to understand instructor duties and requirements; and to exemplify interpersonal skills in dealing with students.

675-676 Seminar. 1-3 hrs.
Program of study not normally covered in other courses. Topics vary from semester to semester.

677-678 Special Topics. 1-3; 1-3 hrs.
Program of study not normally covered in other courses. Topics vary from semester to semester.

681 Thesis. 1-6 hrs.

685-688 Independent Study. 1-4; 1-4; 1-4; 1-4 hrs.
(PR: Permission of chair)

689 Internship. 1-3 hrs.
Supervised work experience in communication.

COMPUTER SCIENCE (CS)

502 Computer Architecture. 3 hrs.
Design and analyze structure of major hardware components of computers including ALU, instruction sets, memory hierarchy and caching, parallelism through multicore and many core, GPUs, storage systems and interfaces.

504 High Performance Computing. 3 hrs.
Learn how to develop highly optimized applications for multi-core processors and clusters using software tools, parallel algorithms, performance profiles, and programming constructs in MPI, OpenMP, MapReduce, CUDA, and OpenCL.

505 Computing for Bioinformatics. 3 hrs.
Study of computational algorithms and programming techniques for various bioinformatics tasks including parsing DNA files, sequence alignments, tree construction, clustering, species identification, principal component analysis, correlations, and gene expression arrays.

510 Database Systems. 3 hrs.
Study of relational data model and abstract query languages, SQL, logical and physical database design, transactions, database recovery, query optimization, XML databases, issues in managing Big Data, and NewSQL systems.

512 Embedded Systems. 3 hrs.
The design of systems containing embedded computers. Microcontroller technology, assembly language, C programming, input/output interfacing, data acquisition hardware, interrupts, and timing. Real-time operating systems and application programming. Application examples. (PR: CS 502)

515 Data Mining. 3 hrs.
Covers (1) the process of knowledge discovery, (2) algorithms (association rules, classification, and clustering), and (3) real-world applications. Focuses on efficient data mining algorithms and scaling up data mining methods.

529 Introduction to Computer Graphics. 3 hrs. II.
Introduction to underlying theory and techniques of computer graphics. Historical perspective. Display hardware technology, 2D raster operations, 2D and 3D geometric transformations, and 3D projection and viewing techniques. Project participation. (PR: MTH 330 or equivalent, or permission of instructor)

539 Introduction to Artificial Intelligence. 3 hrs. I.
Concepts and methods. Heuristic search, planning, hypothesis formation, modeling, knowledge acquisition and representation. Languages, methodologies, tools. Applications including automatic programming, theorem proving, machine vision, game playing, robots. Project participation. (PR: CSD 240 or equivalent, or permission of instructor)

540 Digital Image Processing. 3 hrs.
Study of mathematical techniques and algorithms for image sampling, quantization, intensity transformations, spatial filtering, Fourier transforms, frequency domain filtering, restoration and reconstruction, color imaging, wavelets, morphological image processing, and segmentation.

542 Communication Networks and Distributed Systems. 3 hrs. II.
Network structures, architectures, topology, Layers, protocols, interfaces, local area networks. Coverage of current networks. Distributed processing concepts; architectural trade-offs, distributed databases. Operating system and application software issues. Project participation. (PR: CSD 322 or equivalent, or permission of instructor)

549 Formal Languages and Automata Theory. 3 hrs. I.
Concepts and formalisms of formal languages and automata theory. Fundamental mathematical concepts. Grammars and corresponding automata. Deterministic parsing of programming languages. (PR: CSD 240 or equivalent, or permission of instructor)

550 Information Retrieval. 3 hrs.
Study of theory and algorithms for modeling and retrieving text. Text representation, IR models, query operations, retrieval evaluation, information extraction, text classification and clustering, enterprise and Web search, recommender systems.

552 Natural Language Processing. 3 hrs.
Fundamental algorithms and computational models for core tasks in natural language processing: word and sentence tokenization, parsing, information and meaning extraction, spelling correction, text summarization, question answering, and sentiment analysis.

557 Database Systems, 3 hrs. II.
Basic concepts, semantic models. Data models: object-oriented and relational, lesser emphasis on network and hierarchical. Query languages and normal forms. Design issues, Security and integrity issues. (PR: Permission of instructor)

559 Computer Simulation and Modeling. 3 hrs. I.
Concepts of model building and computer-based discrete simulation. Special-purpose simulation languages. Experimental design, analysis of results. Statistical aspects, random number generation. Model validation issues and methods. Project participation. (PR: MTH 445 or equivalent, or permission of instructor)

567 Compiler Design. 3 hrs. I.
Compilation of modules, expressions, and statements. Organization of a compiler including compile-time and run-time aspects; symbol tables, lexical analysis, syntax analysis, semantic analysis, optimization, object-code generation, error diagnostics. Compiler writing tools. Participation project. (PR: CSD 325 or equivalent, or permission of instructor)
568  Image Processing. 3 hrs.
Image Processing focuses on the application of technology to scientific analysis of images. Topics include: measurement techniques, scientific
methods of reconstruction and interpretation of images and video. (PR: Graduate standing in COS or the Medical School)

570  Introduction to Applied Automation. 3 hrs. I.
Introduction to production economics; programmable logic control, sensors and actuators, digital and analog I/O design. Introduction to robotics
and flexible manufacturing systems. (PR: Permission of instructor)

579  Software Engineering. 3 hrs.
Current techniques in software design and development using Ada, Modula-2, or C for software projects. Formal models of structured programming,
top-down design, data structure design, object-oriented design, program verification methods. (PR: CSD 239 and 320)

580-583 Special Topics. 1-4 hrs.
Study of emerging and advanced topics in Computer Science. Topics vary with instructor and change from one semester to another. (PR: Permission
of instructor)

585-588 Independent Study. 1-4 hrs.
(PR: Permission of instructor)

603  Advanced Educational Computing. 3 hrs.
Allows the educator to develop a more in-depth understanding of the ‘BASIC programming’ language and become familiar with other languages
used on microcomputer.

605  Software Specifications. 3 hrs.
Study of software specification and verification technologies that facilitate semantic reasoning and verification of development artifacts including
functional models, architecture, and source-code implementations.

610  Software Design. 3 hrs.
Study of approaches to software design that meet availability, manageability, maintainability, performance, reliability, scalability, and security
ability goals. Emphasis is on object-oriented analysis and design, design patterns and metrics.

615  Software Testing. 3 hrs.
Study of methods and tools to design high quality tests during all phases of software development. Topics include test design, test automation, test
coverage criteria, and how to test software.

620  Applied Algorithms. 3 hrs.
Study of clustering, graph-theoretic, genetic, probabilistic and randomized algorithms and their application to machine learning, data streams, data
mining, computer vision, natural language processing, information retrieval, and bioinformatics.

625  AI Principles and Methods. 3 hrs.
Study of machine learning and statistical pattern recognition algorithms and their application to data mining, bioinformatics, speech recognition,
natural language processing, robotic control, autonomous navigation, text and Web data processing.

630  Machine Learning. 3 hrs.
Study of machine learning and statistical pattern recognition algorithms and their application to data mining, bioinformatics, speech recognition,
natural language processing, robotic control, autonomous navigation, text and Web data processing.

640  Advanced Topics in Bioinformatics. 3 hrs.
Study of advanced algorithms, data structures, and architectures required for solving complex problems in Bioinformatics. Focus is on analysis of
patterns in sequences and 3D-structures. Team taught seminar course. (PR: CS 505)

650-653 Special Topics. 1-4 hrs.
Study of emerging and advanced topics in Computer Science. Topics vary with instructor and change from one semester to another. (PR: Permission
of instructor)

660  Big Data Systems. 3 hrs.
Learn high performance computer architectures and methods for developing and querying databases for Big Data.

670  Thesis. 1-6 hrs.
Investigate a research problem of theoretical interest and practical value under mentorship of a computer science faculty.

680-683 Special Topics. 1-4 hrs.
Pursue faculty supervised, individualized course of study of a topic that is not currently a part of the Computer Science graduate curriculum.

Marshall University

585-588 Independent Study. 1-4 hrs.
Develop expertise in an emerging area of computer science through guided study under faculty mentorship.

CONTROL SYSTEMS (CSE)

601  Advanced Differential Equations. 3 hrs.
Systems of linear ordinary differential equations and nonlinear equations. Linearization, approximation, and stability. Use of dynamic simulation
software.

602  Modeling and Simulation. 3 hrs.
Process models for flow, heat transfer, mass transfer, and reactions. Analysis includes various lumped parameter and distributed parameter methods.

611  State Space Control-Continuous. 3 hrs.
State space representation of dynamic systems; dynamics of linear systems; frequency domain analyses; controllability and observability; shaping
the dynamic response; linear observers and compensator design; linear, quadratic optimum control.

620  Digital Control. 3 hrs.
Discrete time systems and the Z transform; sampling and reconstruction; open-loop and closed-loop discrete systems. System time response
characteristics; stability analysis techniques. Pole assignment design and state estimation.

621  Control Systems Design. 3 hrs.
Design of simple control systems. Multivariable control systems. Periodic processing. The concepts will be illustrated using chemical, electrical and
mechanical engineering processes.

624  Advanced Control. 3 hrs.
Specific advanced control topics such as dead time compensation, inverse response, cascade control, ratio control, adaptive control, inferential
control, decoupling control, process identification, and optimal control.

626  Non-Deterministic Systems. 3 hrs.
Probability models used in engineering, transformations of random variables, multivariate random variables, application of statistical process
control. Stochastic processes for engineering applications, linear least-square estimation and regression analysis.

629  Nonlinear Control. 3 hrs.
Methods for analysis and design of nonlinear control systems. State space models, phase plane limit cycles, stability, describing functions, relay
system stabilization theory, variable structure systems and advanced topics.
630 Optimal Control. 3 hrs.
General theory of optimal control; calculus of variations; Pontryagin’s maximum principle; Hamilton-Jacobi theory, application of optimal control theory to design of feedback systems, using several performance criteria; advanced topics.

631 Adaptive Control. 3 hrs.
Study of developments in the field of adaptive control; stability, convergence of adaptive systems, model reference, self-tuning and robust adaptive control, adaptive observer, autotuning and gain scheduling, and advanced topics.

650-653 Special Topics. 3 hrs.
Designed to increase the depth of study in a specialized area of control systems. (PR: Consent)

COUNSELING (COUN)

545 Beginning Manual Communication. 3 hrs.
This course provides a beginning study of the psychological characteristics of the hearing impaired and fundamental techniques of manual communication.

554 Advanced Manual Communication. 3 hrs.
This is the follow-up course to COUN 618 and provides an advanced study of the grammar, syntax and idioms of American Sign Language (ASL) and a comprehensive overview of the effect of hearing impairment. Emphasis will be upon communicating in ASL. (PR: COUN 545)

555 Crisis Intervention and Conflict Resolution. 3 hrs.
Students explore types, effects, and interventions for crises, disasters, and other trauma-causing events across the lifespan. Specific topics include ethics, self-care, cultural competence, suicide/homicide, intimate partner violence, sexual assault, emergency preparedness, disaster mental health, grief and bereavement.

556 Death and Grief Counseling. 3 hrs.
A study of the stages of death, dying and the grief process are presented in practical, theoretical, social, and psychological aspects. Emphasis is on counseling elating to various forms of loss.

574 Social & Cultural Foundations. 3 hrs.
Examines the use of appropriate resources for effective counseling of individuals of different cultural, ethnic, social, racial, geographic, or other backgrounds. Personal, social, and cultural sources contributing to social and emotional disenfranchisement are explored, as well as the impact of using stereotypes and practicing discrimination in society and human service delivery systems. (PR: program admission or permission.)

575 Prevention and Treatment of Addictions. 3 hrs.
Course surveys the field of addictions covering assessment, treatment, prevention, and education. It will explore the development of addiction theory and with particular focus on the bio-psycho-social model. (PR: COUN 600 & 603)

577 Stress Management Counseling. 3 hrs.
This course provides counseling students and others with a comprehensive analysis of stress in contemporary society. Of particular emphasis is an orientation to stress management as a counselor helping intervention. Students explore theoretical and practical alternative in helping the stressed client.

579 Pharmacology in Counseling. 3 hrs.
Provides basic understanding of the role of therapeutic drugs in the treatment of psychiatric disorders, familiarizes with most commonly used drugs, side effects, and adverse reactions in specific mental illness. (PR: COUN 600 & 601)

580-583 Special Topics. 1-4 hrs.
Study, reading, and research in specialized areas of counseling and human relations. Areas of interest are offered at various times by the faculty to provide specialized study for advanced students or practicing professionals in the field of counseling. (PR: Consent)

585-588 Independent Study. 1-4 hrs.
Individual or group study and research of various issues and fields of emphasis in counseling. (PR: Consent)

600 Professional Orientation. 1-3 hrs.
This course provides an understanding of all aspects of professional helping in mental health including history, roles, ethics, standards and credentialing. (PR: Program admission or permission)

601 Counselors in Consulting Roles. 3 hrs.
This course provides an exploration of consultation roles that are integrated into the various settings in which counselors work. Content includes an orientation to consultation and its historical development, theory and practice issues, and major models. Of special emphasis is the focus upon case applications and presentations. (PR: COUN 600)

602 Human Development and Psychopathology. 3 hrs.
The course will explore human growth/development from birth through adulthood. Theories of character development, social maturation, abnormalities and variations in development due to gender, culture, and environmental factors will be covered. The change processes, helping relationships, and strategies for facilitating development appropriate to various phases of the life span will be addressed. (PR: program admission or permission)

603 Counseling Theories. 3 hrs.
Survey of classical and contemporary counseling philosophies, history, and techniques as related to interpersonal relationships in the counseling process. (PR: COUN 574, 600, 602, EDF 621)

604 Group Counseling & Theories. 3 hrs.
An examination of group dynamics and theories of group counseling with demonstrations of specific group techniques and the practice of popular approaches in group counseling. (PR: COUN 574, 600, 602, EDF 621)

605 Theory and Practice of Human Appraisal. 3 hrs.
Provide an understanding of individual and group approaches to assessment and evaluation including history, theoretical and statistical aspects, applications to special populations, and legal and ethical concerns and issues. (PR: COUN 574, 600, 602, EDF 621)

606 Career and Lifestyle Development. 3 hrs.
A study of career development theories and decision-making models that impact career development and related life factors. (PR: COUN 603, 604, 605, and 607)

607 Counseling Techniques in Human Relationships. 3 hrs.
Study of a variety of counseling and therapeutic techniques within the framework of a systematic counseling model. Emphasis on basic interviewing, assessment and counseling skills that facilitate the helping process through integration of various theoretical orientations. (PR: COUN 574, 600, 602, EDF 621)

608 Practicum. CR/NC. 3 hrs.
A clinical experience under professional supervision preparing the student for internship; audio and video tapes, group supervision and feedback are used to achieve competency in the application of a counseling process. (PR: COUN 603, 604, 605, 607)

611 Foundations of Community Counseling. 3 hrs.
Examines the history of deinstitutionalization in human services with an emphasis on prevention in the delivery of such services in community agencies. Proposal writing for grants and needs assessment processes and procedures will be emphasized. (PR: COUN 603)

616 Domestic Violence. 3 hrs.
An introduction to the epidemiology, dynamics, clinical interventions and treatment of domestic violence.
Courses of Instruction

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617 Seminar in Counseling. 1-6 hrs.
For students in degree programs or in post-master’s work who wish to discuss and study theory, principles, and techniques of counseling or other special topics. Instructor will indicate in course syllabus whether class is letter graded or S/U. (PR: Consent)

620 Workshop. 1-6 hrs.
Special workshops and short intensive courses on theory, methods, supervision and other special topics in counseling, designed for advanced students and professionals in the counseling field or related fields. (PR: Consent)

621 Introduction to Child Abuse & Neglect. 1 hr.
Introduction to the dynamics of child abuse and neglect and to the legal and ethical issues of persons mandated to report child abuse and neglect. (PR: COUN 600 & 603)

622 Parent Education. 3 hrs.
Study of family education skills training for conducting family education groups and parent training.

630 Introduction to Clinical Mental Health Counseling. 3 hrs.
Provides an introduction to the foundations and contextual dimensions of mental health counseling. Emphasis is given to an exploration of mental health counseling roles and functions, theories and techniques, professional standards and operations, administration, evaluation, and special issues. (PR: COUN 603 and 607)

631 Diagnosis and Treatment Planning in Mental Health Counseling. 3 hrs.
Provides an in-depth exploration of the knowledge and skills necessary for the practice of mental health counseling. Emphasis is given to the principles and practices that relate to psychopathology, DSM diagnosis, etiology and assessment, systematic treatment planning, interviewing, and short and long-term interventions. (PR: COUN 600, 603, and 607)

632 Introduction to Marriage, Couple, and Family Counseling. 3 hrs.
A comprehensive survey of the major theoretical models of marriage, couple, and family therapy from a systems perspective and the applied practices evolving from each orientation.

633 Core Functions of Addiction Counseling. 3 hrs.
Advanced course designed to prepare students for work with clients presenting with substance abuse, and addiction disorders. The course will address the nature and treatment of addiction with attention to the core functions of the addiction counselor. (PR: COUN 575)

634 Couple Counseling. 3 hrs.
A comprehensive survey of the major theoretical models of couple counseling and the applied practices evolving from each orientation.

635 Adult and Family Development and Transition. 3 hrs.
An in-depth study of various theories of family development and interaction. Focus will be on theoretical understanding of family relationships across the stages of the family life cycle and related treatment strategies.

636 Interventions: Marriage, Couple, and Family Counseling. 3 hrs.
An intensive practical experience in marriage, couple, and family therapy techniques to prepare the student to enter the supervised internship of the program. (PR: Students must have achieved minimum grades of B in COUN 622, 632, 636, and 637)

641 Correctional Counseling Seminar. 1-9 hrs.
A critical examination of counseling models in corrections and an appraisal of current professional trends in community corrections. The course may include field experience in correctional settings. The course is designed for visiting professors and/or consultants who offer an expertise in a correctional setting. (PR: COUN 600 & 603 or Consent)

642 Correctional Counseling: Client Advocacy. 3 hrs.
Designed to provide the counselor in a correctional setting with an integration of current contributions from related disciplines. Emphasis will be upon client advocacy, as well as the public, administrative, and legal responsibilities of correctional counselors and others who work with correctional clients. (PR: Consent)

643 Seminar in Career Counseling. 3 hrs.
For students in career counseling who wish to discuss and study theory, principles, and techniques of career counseling or to study specific topics and issues in the field of career counseling. (PR: Consent)

644 Career Counseling with Special Populations. 3 hrs.
Introduction to the special career development needs and concerns of various groups of people in a variety of settings. Emphasis will be given to the special concerns of women, various ethnic groups, the physically and mentally challenged, and person at various stages of vocational maturity. (PR: COUN 600 & 603)

645 Career Assessment Techniques and Report Writing. 3 hrs.
A study of career assessment tools needed to assist individuals in making career choices. Focus will be given to the administering, scoring, and interpreting of vocational and career instruments utilized in career decision making. (PR: COUN 605 and 606)

646 Ecology of Domestic Violence. 3 hrs.
The course will examine domestic violence from an ecological and sociocultural perspective in the context of the community infrastructure, and its response to victims, child safety, and batterer accountability.

647 Counseling Victims, Perpetrators, and Children of Domestic Violence. 3 hrs.
The course will provide a foundation in assessment, treatment, and advocacy for victims, perpetrators, and children who have been involved in relationships or families where domestic violence has been present.

648 Introduction to Student Affairs. 3 hrs.
Provides a broad, comprehensive introduction to the field of college student affairs and its role with the context of American higher education. Various student affairs functional areas, historical, and philosophical foundations of the field, professional standards, guiding theories, and models, and competencies needed to work with diverse student populations are examined. (PR: COUN 603)

649 Current Issues in Student Affairs. 3 hrs.
To enhance the student’s awareness and understanding of the educational, environmental, administrative, legal, and ethical issues in the field of Student Affairs in colleges and universities, this course provides the opportunity to discover, discuss and analyze current issues impacting student affairs practices both nationally and internationally. (PR: COUN 603 and 607)

650 Interventions for Current Issues in School Counseling. 3 hrs.
An in-depth examination of effective strategies for dealing with current issues in K-12 environment. Issues such as academic failure, substance abuse, loss, violence, multicultural factors, etc., will be explored. (PR: COUN 603 and 607)

651 Organization and Administration of School Counseling Programs. 3 hrs.
Operation and administration of elementary and secondary school counseling programs in terms of personnel functions, relationships, physical facilities, instructional integration, financial standards, laws, and regulation. (PR: COUN 670)

652 Counseling Children, Adolescents, and Parents. 3 hrs.
Consideration of effective counseling strategies and techniques appropriate for children, adolescents and parents through lecture, demonstration and laboratory experiences. Personal, social, career, academic and family related issues and dynamics will be explored. (PR: COUN 600 & 603)

653 Legal and Ethical Issues for School Counselors. 3 hrs.
An overview of professional issues in the field of counseling, mental health and education; an overview of legal and ethical issues specific to the field of school counseling; an overview of international, national, regional and state legal and ethical cases effecting the field of school counseling; an introduction to ethical and legal issues including an ethical and legal decision making models, licensure and Certification requirements, confidentiality, etc. (PR: COUN 600 and COUN 603)
507 Realities of Prison Life. 3 hrs.
This course explores types of trauma experienced in modern society, the inter- and intrapersonal effects of trauma on clients, and an introduction to treatment modalities and evidence-based practice. (PR: COUN 555)

508 Psychophysiology of Trauma. 3 hrs.
This course explores effects of trauma on the central nervous system, psychomotor abilities and physiological and emotional responses to trauma, PTSD, and traumatic injury. (PR: COUN 682)

509 Advanced Techniques in Treatment of Trauma and Loss. 3 hrs.
This course focuses on advanced treatment of trauma and loss through investigation of trauma theory, evidence-based treatment and interventions, and applied practice. (PR: COUN 556 and COUN 682)

510 Trauma and Suffering. 3 hrs.
This course focuses on existential suffering caused by traumatic stress, and the counseling needs of affected individuals. It explores the nature of suffering, as well as a variety of philosophical, religious, and theoretical approaches to suffering. The course presents best practices for clinical approaches within professional counseling.

601 Internship in Clinical Mental Health Counseling. CR/NC. 3 - 9 hrs.
Supervised experience in mental health counseling. Participation in seminars on specified topics. Minimum 100 clock hours for each semester hour credit. (PR: COUN 608 and 631 with minimum grade of B or permission)

602 Internship in Community Counseling. 3-6 hrs.
Supervised experience in community counseling. Minimum 100 clock hours for each semester hour credit. (PR: COUN 608 with a minimum grade of B or permission)

603 Internship in Marriage and Family Counseling. CR/NC. 3 - 9 hrs.
Supervised experience in marriage and family counseling. Participation in seminars on specified topics. Minimum 100 clock hours for each semester hour credit. (PR: Student must have achieved a minimum grade of B in COUN 638)

604 Internship in Corrections Counseling. CR/NC. 3 - 6 hrs.
Supervised experience in corrections counseling. Participation in seminars on specified topics. Minimum 100 clock hours for each semester hour credit. (PR: COUN 608 and 641 with a minimum grade of B or permission)

605 Internship in Career Counseling. 3 - 6 hrs.
Supervised experience in career counseling. Participation in seminars on specified topics. Minimum 100 clock hours for each semester hour credit. (PR: COUN 608 and 653 with a minimum grade of B or permission)

606 Internship in Student Affairs Counseling. 3 - 6 hrs.
Supervised experience in student affairs counseling. Participation in seminars on specified topics. Minimum 100 clock hours for each semester hour credit. (PR: COUN 608 with a minimum grade of B or permission)

607 Internship in School Counseling. CR/NC. 3 - 6 hrs.
Supervised experience in school counseling. Participation in seminars on specified topics. Minimum 100 clock hours for each semester hour credit. (PR: COUN 608 and 673 with a minimum grade of B or permission)

700 Internship. 1-12 hrs. CR/NC.
A course designed to offer advanced graduate students an opportunity to practice under close supervision the professional skills required in the broad field of counseling in school and community settings. (PR: Consent)

701 Professional Development and Advocacy. 3 hrs.
This course prepares professional counselors for community leadership roles related to client advocacy in multicultural setting, current political trends, theories of social change, social justice, and advocacy planning. (PR: Admission to Ed.S.)

702 Current Issues in Counseling. 3 hrs.
An examination of current issues affecting professional counselors and training in effectively dealing with the issues. Selected readings, guest speakers, and class discussion will center around professional issues relevant to counselors in various settings (i.e., legal and ethical considerations). (PR: Consent)

703 Systems Intervention 3 hrs.
Examination of the major systems which may require intervention by a supervisor of counselors and training in effective intervention strategies. (PR: Consent)

704 Advanced Group Counseling 3 hrs.
The application of counseling theories in group settings, including supervised group leadership experiences. (PR: Consent)

705 Seminar 3 hrs.
For students in post-master’s work who wish to discuss and study theory, principles, and techniques of counseling or other special topics. Instructor will indicate in course syllabus whether class is letter graded of S/U. (PR: Consent)

706 Models of Counselor Supervision 3 hrs.
A survey of theoretical approaches and techniques counseling supervision. Emphasis is placed on supervision of counselors in various settings. (PR: Consent)

707 Residency in Counselor Supervision 6 hrs.
Supervised application of the knowledge and skills gained in the Ed.S. Program. Students will supervise practicing counselors in approved settings. (PR: Acceptance into the Ed.S. Program, completion of all other Ed.S. academic requirements, and consent)

708 Special Topics 3-6 hrs.
Study, reading, and research in specialized areas of counseling, human relations, guidance or other special topics.

CRIMINAL JUSTICE (CJ)

500 Applied Ethics in Criminal Justice. 3 hrs.
Examines ethical issues and moral dilemmas faced by criminal justice professionals. Traditional ethical theories and practices designed to foster public trust in the criminal justice system are examined and applied.

501 Teaching and Training in Criminal Justice. 3 hrs.
Students examine various theories and techniques used in teaching and training criminal justice professionals, develop lesson plans, and use technology based presentation media to present information.

502 Theoretical Criminology. 3 hrs.
A critical analysis of the major criminological theories and their empirical foundations. Current theory and research receive greater emphasis than historical development.

503 Race, Ethnicity, Gender, & Crime. 3 hrs.
Examines the impact of race, ethnicity, and culture within the criminal justice system. Explores minorities and women as victims, witnesses, and offenders.

504 Realities of Prison Life. 3 hrs.
Realities of living in a maximum security prison are the focus of this course. This will include an extensive examination of prison design, operation, policies, procedures, and security.
Examination of School Violence in the U.S. 3 hrs.
An examination of school violence in the U.S. is the focus of this course. Course will involve field research of 78 currently incarcerated school violence offenders between 1979 and 2011.

Goth Primer for Juvenile Justice Professionals. 3 hrs.
Examination of influence that youth involvement in alternative believe systems/practices may have upon their eventual violent, criminal, and/or anti-social behavior. Course focuses on proper responses to youth involved.

Police Administration. 3 hrs.
This course studies the functions and activities of police agencies, including police department organizations and responsibilities of police administrators. Current administrative and management techniques and theories are also explored.

Terrorism. 3 hrs.
This course provides students with a working knowledge of the history of terrorism, the current status of terrorist groups, terrorism tactics, and methods to counteract terrorism.

Corrections and the Law. 3 hrs.
Review of legal principles relating to convicted criminals, including plea negotiations, sentencing, post-conviction remedies, constitutional rights of inmates, and conditions of confinement.

Law of Evidence. 3 hrs.
Leading rules and principles of exclusion and selection; burden of proof; nature and effect of presumptions; proof of authenticity and contents of writings; examinations, competency and privilege of witnesses.

Computer Crime. 3 hrs.
Students will identify and define criminal acts committed with computers or directed toward computer systems, electronic search and seizure and electronic evidence.

Civil Liability Issues in Criminal Justice. 3 hrs.
This course examines various theories of civil liability that relate to Criminal Justice professionals, the civil justice system, and preventing and defending civil liability claims.

Correctional Administration. 3 hrs.
Objectives of correctional institutions; records; personnel, program development, security; educational programs.

Criminal Justice Response to Domestic Violence. 3 hrs.
This course focuses on the legal response to child abuse, domestic violence, and elder abuse. Examines dynamics of abusive relationships, the effects of victimization, and current research on these issues.

Business and Industry Security. 3 hrs.
Selection, training and staffing of a security force; security devices available, techniques of internal security; ground security; security techniques applicable to personnel selection; legal problems.

Seminar in Crime Prevention. 3 hrs.
This course examines theory, operation, and evaluation of crime prevention as a function of the criminal justice system. Techniques for crime prevention are analyzed from various orientations, including environmental design. (PR: permission)

Special Topics in Criminal Justice. 1-4; 1-4; 1-4 hrs.
A study of special interest criminal justice topics under the supervision of a qualified faculty member. (PR: Consent of instructor)

Independent Study. 1-4; 1-4; 1-4 hrs.
This course permits the student to undertake supervised research (field or library) in any area where there is no appropriate course. (PR: Consent of instructor)

Internship. 1-6 hrs.
The placement of an individual into a criminal justice agency (police, probation, courts, jails) to observe and participate in its operation. Grading is CR/NC. (PR: Consent of instructor)

Law and Social Control. 3 hrs.
An examination of the nature of law and crime with a view towards determining the nature of control of social behavior by the legal system.

Criminal Justice Planning. 3 hrs.
A systematic review of procedures to plan and evaluate criminal justice organizations and their operations.

Advanced Theory in Criminal Justice. 3 hrs.
Course is designed to provide the student already familiar with the basic concepts of criminological theory the opportunity to examine in depth a selected set of theories. (PR: CJ 504, its equivalent, or permission of instructor)

Juvenile Delinquency. 3 hrs.
Juvenile delinquency in the modern world; nature, extent, causes, treatment, and control.

Criminology. 3 hrs.
Seminar in crime and delinquency.

Advanced Criminal Law and Procedure. 3 hrs.
A review of contemporary legislation and court decisions relating to criminal law and procedure. (CJ 322 or permission)

Community Corrections. 3 hrs.
A survey of probation, parole, pre-release centers, halfway houses and other forms of community corrections as elements of a total correctional system. Historical development, contemporary organization, and legal issues are emphasized.

Research Methods in Criminal Justice. 3 hrs.
Elements of scientific research; interaction between research and theory; use of data processing resources. (PR: Undergraduate research methodology course, undergraduate statistics course, and permission)

Applied Statistics in Criminal Justice. 3 hrs.
Principles of statistical techniques with emphasis upon their application in the Criminal Justice system. (PR: Undergraduate statistics course, CJ 655, and permission)

Problem Report. 3 hrs.
The preparation of a written report on a research problem or field study in Criminal Justice. (PR: CJ 655 and permission)

Thesis. 1-6 hrs.

Capstone Experience. 3 hrs.
A culminating experience where student will apply knowledge and skills learned in the program of study to create, in collaboration with an agency or organization in the field, and original, scholarly work that addresses a current issue of concern. (PR: CJ 604, CJ 655, and CJ 656)

**CURRICULUM AND INSTRUCTION (CI)**

Middle Childhood Curriculum. 3 hrs. I, II, S.
The study of procedures for creating a functional middle childhood curriculum with emphasis upon the needs of middle childhood learners.
Methods and Materials of Teaching in the Middle Childhood Grades. 3 hrs. I, II, S.
The study of methods appropriate for teaching in the middle childhood grades and the production and utilization of materials and resources in
these grades.

Analysis of Teaching in Early Years. 2 hrs.
The analysis and appraisal of teaching strategies employed in the teaching of young children. (CR: CI 630)

Integrated Methods and Materials: Secondary Education. 3 hrs.
General secondary/middle school course with emphasis on instructional standards and objectives, methods, and materials of the disciplines. A
clinical experience provides observation and teaching. MAT students only. (PR: EDF 537; CR: EDF 637)

Comprehensive Classroom Discipline Techniques. 3 hrs.
Identification of common classroom discipline problems and techniques for dealing with behavioral incidents in school settings K-12.

Classroom Motivation. 1.5 hrs. I, II, S.
Classroom motivation with an emphasis on theoretical constructs and practical applications for teachers of students from early childhood through
adolescence.

Language Arts and Literature. 3 hrs.
An examination of theory, research, and practical strategies for integrating language arts and teaching literature for students K-8.

Instructional and Classroom Management in Elementary Education. 3 hrs.
This course allows elementary education students to critically examine a variety of classroom management strategies and educational issues that
impact instruction.

Instructional and Classroom Management in Secondary Education. 3 hrs.
Classroom management with an emphasis on practical techniques for dealing with management problems in secondary and middle school settings.

Writing in an Integrated Literacy Framework. 3 hrs.
Views writing from an integrated literacy framework emphasizing multiple methods of writing and writing assessment.

Writing to Learn in Content Areas. 3 hrs.
Designed to introduce teachers to successful approaches and strategies to foster thinking and learning through writing, and experiment with a
variety of approaches and techniques in their classrooms.

Summer Institute: The National Writing Project Model. 6 hrs.
Participants will examine problems in the teaching of writing, present and demonstrate approaches to the teaching of writing, study current and
past research in the field.

Elementary Education: Teaching Contemporary Mathematics. 3 hrs.
Application of modern methods and techniques in the implementation of a contemporary elementary mathematics program.

Multicultural Influences in Education: Materials and Techniques. 3 hrs. I, S.
Multicultural education with an emphasis on methods and materials for teaching students from diverse cultural backgrounds.

Staff Development: Identifying content title to be added. 1-4; 1-4; 1-4; 1-4 hrs. I, II, S.
Courses and activities designed to meet the specific inservice needs of public school personnel. Credit in these courses may be used for certificate
renewal and salary upgrading if approved but not in degree programs. CR/NC grading.

Special Topics. 1-6 hrs. I, II, S.

Independent Study. 1-4 hrs. I, II, S.
Permission of Chair and GPA 3.0 to take class. Limit of 6 hrs. of Independent Study to be used in master’s degree program.

Workshop. 1-4 hrs.
A study of practical applications in teacher education and related fields for advanced students and professionals. Experience in new techniques and
application of new knowledge.

Instructional Television Course. 1-4 hrs.
A course based upon Instructional Television Series broadcast by public television. The student is responsible for viewing the series on the air and
satisfying all course requirements announced by the department.

Elementary Education: Curriculum in the Modern Elementary School. 3 hrs. I, II, S.
Examination of traditional and current assumptions undergirding the modern elementary school curriculum with emphasis on converting
theoretical bases into plans for curriculum change and modernization.

Secondary Education: Curriculum in the Modern Secondary School. 3 hrs. II, S.
Analysis of the social and political factors which affect secondary school curriculum with emphasis upon trends and developments in high schools
today.

Elementary Education: Informal Learning in Primary and Middle Schools. 3 hrs.
Informal learning in the primary and middle school with emphasis on the significance of natural child development, learning through games and
play, and the British model for infant and junior schools, and related activities for the middle years (ages 10-14) in middle school settings.

Instructional Models and Assessment Techniques. 3 hrs.
Selected teaching models are analyzed with implications for the role of the teacher; assessment of influences of the teacher.

Advanced Instructional Strategies. 3 hrs.
Performance-based laboratory experiences in a micro-teaching laboratory development of a personalized teaching repertoire.

Program Planning and Evaluation. 3 hrs.
Explicitly links program planning in/for organizations with advances in evaluation research practice in education and closely related fields.
Designed for students engaged in varying levels of professional practice.

Early Childhood Education: Practicum in Early Childhood Education. 1-4 hrs.
Supervised experience in teaching kindergarten. With concurrent seminar in organization and administration.

Early Childhood Education: Current Influences on Early Childhood Education. 3 hrs.
A study of recent findings in the behavioral sciences and their implications for early childhood education.

Early Childhood Education: Early Childhood Programs. 3 hrs.
An examination of past and present programs for young children with opportunity provided for curriculum development.

Early Childhood Education: Adult Involvement in Early Education. 3 hrs.
Ways of communicating and involving paraprofessionals, parents, volunteers, and staff in the education of young children.

Language and Cognition in Early Childhood. 3 hrs.
Examination of selected studies in language acquisition and cognitive development of children from birth to eight years of age.

Curriculum Planning. 3 hrs.
A study of the fundamental skills needed to evaluate educational progress at the classroom, program, and school levels.

Literature. 1-3 hrs. I, II, S.
A program of reading, either extensive or intensive, and reports on a group of outstanding contributions to education; readings selected with
guidance of advisor. Only one registration for Curriculum and Instruction 640 is permitted. (PR: Permission of chair)

Seminar. 3 hrs. I, II, S.
A guided program of readings, reports and discussions. No student may register for this course a second time. (PR: Permission of chair)
Elementary Education: Teaching Language Arts. 3 hrs.
A unified Reading-Language instructional approach to develop a basic understanding of reading-language related principles derived from disciplines, research, and innovative classroom practices.

Elementary Education: Advanced Techniques in Teaching Elementary Mathematics. 3 hrs. II, S.
Historical, social, psychological, and philosophical foundations of mathematics education; investigation of current trends and issues in contemporary programs.

The symposium is the culmination of the master's degree program in Elementary Education, Secondary Education, and Early Childhood Education. This is the first of a two-part sequence. (PR: Consent)

Elementary Education: Teaching Social Studies in Elementary Schools. 3 hrs.
Materials and procedures for teaching social studies with emphasis on a survey of successful programs of instruction.

Elementary Education: Advanced Techniques in Teaching Science. 3 hrs.
Intensive concentration on helping children inquire into the earth, physical, and biological sciences through modern methods and media.

Practicum in Education. 3-46 hrs.
Clinical Experience: Directed activity in a clinical setting. (PR: Permission)

Curriculum Theory. 3 hrs.
Analysis of the assumptions undergirding curriculum development.

Program Evaluation. 1-3 hrs.
An examination of program evaluation models and techniques for instructional supervisors.

Writing for Publication in Professional Education. 3 hrs.
For professional educators and students who wish to study and practice writing articles for publication in scholarly journals in the field of education.

The Supervising Teacher. 3 hrs.
Duties and responsibilities of the teacher who supervises student teachers.

Classroom Management for Elementary Teachers. 3 hrs.
This course is designed for elementary teachers. The content includes methods of managing the physical and social environment in the classroom.

The comprehensive assessment requirement is met within the framework of this course. (PR: Consent.)

Thesis. 1-6 hrs. I, II, S.
Students completing 681 must defend their thesis in an oral examination.

Capstone Experience. 3 hrs.
This course is designed as a culminating experience that allows participants to demonstrate professional knowledge and skills related to program experiences. (PR: Permission only)

Curriculum Development. 3 hrs.
This course is designed to review curriculum development and planning from the historical perspective – the four foundations of curriculum that can be translated into instructional design. (PR: Admission to C&I doctoral program or permission)

Curriculum Theories. 3 hrs.
This course will give the student a foundation in the theories and paradigms underlying curriculum from the past, present and future. (PR: Admission to C&I doctoral program or permission)

Theories, Models, and Research of Teaching. 3 hrs.
This course will analyze and synthesize the historical development of curriculum and the implications on instructional design. Behaviorism, cognitivism, constructivism, humanism, brain-based learning, and multiple intelligences will be examined. (PR: Admission to C&I doctoral program or permission)

Social, Cultural and Political Determinants of Curriculum Development. 3 hrs.
This course critically analyzes the social, cultural, and political determinants of curriculum, and examines issues of difference and equity in curriculum. (PR: Admission to C&I doctoral program or permission)

Higher Education Curriculum. 3 hrs.
This course is an introduction to the development and management of the curriculum in higher education institutions.

Multicultural and Diversity Issues in Curriculum and Instruction. 3 hrs.
This course attempts to understand the issue of differences and equity through personal and critical analyses of the philosophical, social, and cultural perspectives that inform and shape curriculum and teaching.

Curriculum Change. 3 hrs.
This course will explore current developments in curriculum transformation and change theory. This course will examine the impact of change theory on curriculum development.

Special Topics in Curriculum and Instruction. 1-9 hrs.
This course requires study, reading and research in an advisor/chair approved area of curriculum and instruction. This course is limited to Ed.D. and Ed.S. students. (PR: Permission)

Curriculum and Instruction Dissertation Research. 1-12 hrs.
This course is designed to support the student's doctoral research. The major focus is completion of the dissertation. (PR: Admitted to candidacy of C & I doctoral program)

CURRICULUM AND INSTRUCTION: DEAF AND HARD OF HEARING (CIDH)

American Sign Language (ASL) I. 3 hrs.
This course emphasizes the learning of basic person-to-person conversational signing skills as a second language, including use and comprehension of ASL vocabulary, syntax, and fingerspelling.

American Sign Language (ASL) II. 3 hrs.
For professionals serving deaf/hard of hearing (D/HH) individuals. Includes deaf culture, functional language, and legal issues in deaf education.

American Sign Language (ASL) III. 3 hrs.
For professionals serving deaf/hard of hearing (D/HH). Includes deaf culture, the impact of cross-cultural perspectives on D/HH children, language in the Deaf Education classroom.

Auditory Habilitation: Communication Approaches and Sensory Devices for Children with Hearing Loss. 3 hrs.
Course will consist of lecture, demonstration discussion, and student presentations. Graduate students in the course will be required to develop a Web-based instructional module illustrating one of the major communication approaches used with children with hearing loss.

Introduction to Deaf and Hard of Hearing. 3 hrs.
Introduction to the education of deaf and hard of hearing students. (PreK-12) for prospective teachers and other professionals serving deaf/hard of hearing students.
506 Curriculum and Methods for Deaf and Hard of Hearing Students. 3 hrs.
Study of curriculum, methods, techniques, and materials used in the education of deaf/hard of hearing students. Includes information on classroom organization, classroom management.

601 Teaching Internship and Practicum (Deaf/Hard of Hearing) I (Residential). 3 hrs.
This course represents a residential placement in which the students works with deaf and hard of hearing students in a classroom under the direction of a licensed teacher.

602 Teaching Internship and Practicum (Deaf/Hard of Hearing) I (Local School District). 3 hrs.
This course represents a residential placement in which the students works with deaf and hard of hearing students in a classroom under the direction of a licensed teacher.

607 Development and Remediation of Reading, Writing, and Discourse for the Deaf and Hard of Hearing. 3 hrs.
Study of complex nature of language acquisition, reading, and writing in deaf/hard of hearing students and techniques for enhancing language and teaching reading in this population.

CURRICULUM AND INSTRUCTION: EDUCATIONAL COMPUTING (CIEC)

530 Computer Software and Methodology in Education. 3 hrs.
This course is designed for inservice teachers who want to become familiar with how to use the microcomputer to improve their instruction.

534 Applications Software in the Classroom Curriculum Area. 3 hrs.
Offers hands-on experience using applications software (databases, multimedia, spreadsheets, word processing) and explores a range of related topics for schools, including state/national standards, current trends/issues, Internet/communications technologies, and hardware accessories.

560-564 Staff Development. 1-4 hrs.
Courses and activities designed to meet the inservice needs of public school personnel. Credit in these courses may be used for certificate renewal and salary upgrades if approved, but may not be used a degree programs. CR/NC grading.

580-583 Special Topics. 1-4 hrs.
585-588 Independent Study. 1-4 hrs.
591-594 Workshop. 1-4 hrs.

600 Instructional Design and Technology. 3 hrs.
An analysis of current systems of educational computing based on models of instruction, learning modalities, and desired learning outcomes. (PR: CIEC 534 or equivalent or consent)

610 Local Area Networks and Telecommunications in the School. 3 hrs.
A hands-on approach to managing and using local area networks and telecommunications to meet the instructional needs of the school. (PR: CIEC 534 or equivalent or consent)

620 Software Evaluation and Selection. 3 hrs.
In-depth evaluation of software based on student-developed criteria. (PR: CIEC 600 or equivalent)

630 Authoring Systems and Multimedia. 3 hrs.
Explores multimedia design as process and product while providing hands-on experience using authoring systems for planning, creating, editing, and publishing text, graphics/images, animations, audio, video and interactive projects.

635 Using the Internet in the Classroom. 3 hrs.
This course provides an introduction to the Internet, with an emphasis on the World Wide Web and its potential uses for teaching and learning.

660 Using Computers to Improve Instruction in the Classroom. 3 hrs.
This course is designed for inservice teachers who are familiar with the “BASIC programming” language and who want to learn how the microcomputer can be utilized in a content area.

699 Final Project in Curriculum Area. 3 hrs.
A final project related to the student's curriculum area which demonstrates the ability to design and implement a computer-based curriculum application. (PR: CIEC 630 or equivalent)

700 Technology and Curriculum. 3 hrs.
This course provides and overview of current issues related to technology in education while also providing participants with the opportunity to improve personal technology skills and use.

715 Online Course Development and Delivery. 3 hrs.
This course offers participants the opportunity to explore strategies and issues related to the development and delivery of online courses.

CURRICULUM AND INSTRUCTION: ENGLISH AS A SECOND LANGUAGE (CISL)

550 Second Language Acquisition. 3 hrs.
This course examines current theories of second language acquisition and their implications for second language teaching and learning.

551 Linguistics for ESL. 3 hrs.
This course examines major linguistic theories on first- and second-language acquisition, emphasizing acquisition of English by non-native students in prekindergarten through twelfth grade. (PR: CISL 550)

552 Intercultural Communication. 3 hrs.
This course focuses on the interrelationship of language and culture and includes analyses of world cultures, with literature and arts as bridges. Participants develop teaching materials for ESL classrooms.

653 Methods and Materials for ESL: Language Development. 3 hrs.
Approaches to developing and assessing listening and speaking skills among second language populations at different stages in academic development, with an overview of traditional ESL methods. (PR: CISL 550)

654 Methods and Materials for ESL: Literacy Acquisition. 3 hrs.
Approaches to developing and assessing writing and reading skills among second language populations at different stages in academic development. Focus also includes literacy acquisition in content areas. (PR: CISL 550)

655 ESL Practicum for Teaching ESL. 3 hrs.
A culminating practicum that involves participation in ESL curriculum evaluation and development. (PR: CISL 550, 551, 552, 553, 554)

CURRICULUM AND INSTRUCTION: LITERACY EDUCATION (CIRG)

500 Building Supportive Classrooms for Early Literacy Learning. 3 hrs.
This is a fieldbased course designed for schools that are adjusting the literacy curriculum to support literacy acquisition. Participants learn to provide appropriate assessment and instruction to foster the development of learning strategies for reading and writing for their pupils.

506 Introduction to Reading Recovery. 3 hrs.
A course designed for Reading Recovery Teachers-in-Training including the basic concepts, practices, theory, and philosophy. Participants will administer, score, and interpret an observation survey.
Courses of Instruction

507 Reading Recovery: Theory and Practice. 6 hrs.
Provides information, direction, and supervision in implementing Reading Recovery within the school setting. This course includes a daily practicum and weekly seminar session relating theory to practice. (PR: CIRG 506)

560-564 Staff Development. 1-4 hrs.
Courses and activities designed to meet the inservice needs of public school personnel. Credit in these courses may be used for certificate renewal and salary upgrades if approved, but may not be used for a degree program. CR/NC grading.

565 Reading for Supervisors of Instruction. 1 hr.
A course for individuals seeking certification as a supervisor of instruction. Attention will be given to comprehensive reading programs, approaches to reading instruction, and inservice programs. (PR: Consent)

580-583 Special Topics. 1-4 hrs.
585-588 Independent Study. 1-4 hrs.

601 Professional Guidance for the Literacy Specialist. 3 hrs.
An elective course for candidates in the master’s in reading education. It supports the program’s assessment plan that prepares candidates as literacy specialists.

613 Children’s Literature. 3 hrs.
An examination of teaching methods and of children’s literature that are conducive to promoting permanent interests, skills, and interests in reading for ECE and MCE.

614 Adolescent Literature. 3 hrs.
Analysis of the roles of the teacher in developing a reading program for the late adolescent and adult. The utilization of children’s literature as a medium for bridging the content fields with the process of reading will be a major concept that will be utilized.

615 Writing in the Literacy Curriculum. 3 hrs.
Examine, develop, implement and evaluate traditional and electronic writing within a balanced literacy framework.

619 Reading Leadership: Roles, Responsibilities, and Problems. 3 hrs. S.
Analyses of administrators/ supervisor’s roles, responsibilities, problems, and practices in reading programs K-12. Presents practical solutions for problems encountered in a comprehensive reading program.

621 Current Issues and Problems in Reading. 3 hrs.
A seminar course especially designed to explore problems and issues in reading, K-12. Professional literature, empirical research, and practical experience will be used to identify problems and solutions. (PR: CIRG 643)

622 The Use of Technology for Literacy Instruction. 3 hrs.
Candidates will plan for literacy instruction and use literacy technology in their classrooms. Emphasis will be given to the Internet and educational software.

623 Reading Instruction for Literacy Facilitators: A Practicum. 3 hrs.
Practicum experiences requiring demonstration of literacy leadership including demonstration teaching, classroom support of literacy instruction, and developing, implementing, and evaluating the literacy curriculum within the school setting. (PR: CIRG 654)

636 Developmental Reading. 3 hrs.
Principles and practices of teaching developmental reading.

637 Literacy Assessment. 3 hrs.
Study and the causes of reading difficulties, diagnostic devices and techniques, and theory related to assessing literacy development.

639 Reading Education Seminar: Planning, Organizing and Supervising a Reading Program. 3 hrs.
This course is designed as an in-depth study and analysis of the planning and organizing of reading programs at various administrative levels. (PR: CI 643)

642 Reading Education Seminar: Reading Instruction for Individuals with Special Needs. 3 hrs.
Study of research findings, methodology and instructional materials for atypical learners, illiterate adults and others.

643 Teaching Struggling Readers: A Practicum. 3 hrs.
Clinical experiences in the diagnosis and corrective treatment of reading disabilities. (PR: CIRG 654)

644 Literacy in the Content Area. 3 hrs.
Principles underlying the teaching of reading in the content fields.

651 Principles of Family Literacy. 3 hrs.
This course examines different family literacy programs and anchors the literacy needs of family member in what is known about linguistic, cognitive, and literacy development.

652 Implementing and Evaluating a Family Literacy Program. 3 hrs.
This is a development and evaluation course in family literacy intended for active practitioners. (PR: CIRG 653, CI 634, CIRG 651)

653 Literacy Acquisition. 3 hrs.
Literacy acquisition is a foundation course open to professionals whose interests require understanding of the process involved in becoming literate.

654 Aligning Assessment with Instruction. 3 hrs.
Experiences in analyzing diagnostic test results, preparing diagnostic reports, and selecting appropriate materials and procedures to meet specific reading needs. (PR: CIRG 644, 653, 615, 636, 622 and 637)

701 Literacy Education Seminar I. 3 hrs.
An investigation of research in reading that has made a difference in education, pupil achievement in reading, the role of reading, and the role of the reading specialist. (PR: Master’s degree, consent of instructor)

702 Literacy Education Seminar II. 3 hrs.
An examination of research that has the potential to bring about changes in reading education and school curriculum.

703 Literacy and Literacy-Related Tests and Techniques. 3 hrs.
An examination of research related to the development of reading and reading-related diagnostic procedures. Detailed study will be made of standardized tests, the Informal Reading Inventory (IRI) and other similar diagnostic measures and competency-based instruments.

704 Advanced Instructional Literacy Processes. 3 hrs.
A study of advanced instructional techniques in reading. Attention will be given to such concepts as self-concept, intelligence, nature/nurture, interaction, perception, physiological differences, and exceptionalities.

705-706 Advanced Research in Reading Education I and II. 3-6 hrs.
Planning and implementing a study investigating aspects of reading theory. The study will necessitate deriving empirical data under field conditions.

707 Issues in Reading. 3 hrs.
A review of trends and issues in reading education focusing on the complexity of the reading process.

708 Philosophy and History of Reading Education. 3 hrs.
A study of the philosophical foundation of current reading programs. This course will review the historical background and progress in reading education.

709 Field Experience: An Aspect of Reading Education. 3 hrs.
A field-based course designed to study the theory, preparation, presentation, and evaluation of inservice education. Emphasis will be placed on the refinement of teacher education in specialized areas of the curriculum.
710  Individual Study. 3 hrs.
   Individualized study of advanced topics in reading.

CURRICULUM AND INSTRUCTION: MATH EDUCATION (CIME)

500  Mathematics for the Elementary Teacher I. 3 hrs.
   Systems of numeration, sets, relations, binary operations, decimal and other base systems, natural numbers, integers, rational numbers, and real numbers with emphasis on the algebraic structure.

501  Mathematics for the Elementary Teacher II. 3 hrs.
   Continuation of CIME 500; PR: CIME 500

555  Technical Mathematics for Mathematics Educators. 3 hrs.
   Specialized mathematical knowledge for teaching: an in-depth analysis of the foundations of mathematics: numbers and operations, ratio and proportion, and numbering systems, with emphasis on workplace applications and mathematical tools.

556  Finite Mathematics for Mathematics Educators. 3 hrs.
   Specialized mathematical knowledge for teaching: a study of set theory; probability; data analysis; elements of discrete mathematics, such as combinatorics and graph theory; and the mathematics of finance.

560-564  Staff Development. 1-4 hrs.
   Courses and activities designed to meet the inservice needs of public school personnel. Credit in these courses may be used for certificate renewal and salary upgrades if approved, but may not be used a degree programs. CR/NC grading.

580-582  Special Topics. 1-4 hrs.
585-588  Independent Study. 1-4 hrs.
591-594  Workshop. 1-4 hrs.

650  Algebra for Mathematics Educators. 3 hrs.
   Specialized mathematical knowledge for teaching: an in-depth study of topics typically found in a college algebra course. (PR: CIME 555 and CIME 556)

657  Pre calculus for Mathematics Educators. 3 hrs.
   Specialized mathematical knowledge for teaching: a study of advanced algebraic structures and functions of change, including an introduction to calculus. (PR: CIME 650)

658  Geometry for Mathematics Educators. 3 hrs.
   Specialized mathematical knowledge for teaching: basic concepts of logic and mathematical proofs. Topics include angle relationships, parallel, and perpendicular lines, circles, polygons, solids, triangles, elementary trigonometry, and use of geometry software. (PR: CIME 650)

670  Teaching Mathematics. 3 hrs.
   Emphasis will be on planning for instruction based on how students learn mathematics, state or district standards, research on best practices, NCLB goals, and data from a variety of assessments. (PR: CIME 555 and CIME 556)

675  Supervised Field Practicum/Seminar in Mathematics, 5-9. 3 hrs.
   Supervised practicum in which the student demonstrates and is assessed in mathematics teaching skills in a clinical setting in grades 5-9. (PR: CIME 670 and any two of the following: CIME 555, 556, 650, 657, or 658; or permission)

677  Supervised Field Practicum/Seminar in Mathematics, 5-12. 3 hrs.
   Supervised practicum in which the student demonstrates and is assessed in mathematics teaching skills in a clinical setting in grades 5-12. (PR: CIME 670 and any two of the following: CIME 555, 556, 650, 657, or 658; or permission)

CURRICULUM AND INSTRUCTION: SCIENCE EDUCATION (CISE)

560-564  Professional Development. 1-4 hrs.
   Courses and activities designed to meet the inservice needs of public school personnel. Credit in these courses may be used for certificate renewal and salary upgrades if approved, but may not be used a degree programs. CR/NC grading.

570  Flora and Fauna for the Elementary/Middle School. 3 hrs.
   A study of the flora, fauna, and physical geography of West Virginia. Field-based experiences will lead to a greater understanding of the forces that shaped Appalachia and the flora and fauna that live here.

571  Developing Thematic Science in the Elementary/Middle School. 3 hrs.
   A study of the strategies and techniques needed to plan, implement and evaluate a thematic, coordinated, and integrated science program in the schools.

572  Environmental Education for the Elementary/Middle School Teacher. 3 hrs.
   A study of man's interactions with the environment. Awareness, conservation, problem-solving and stressed using strategies and techniques appropriate for the elementary/middle school student.

573  Chemistry for the Elementary/Middle School. 3 hrs.
   A study of the fundamental principles of chemistry focusing on developmentally appropriate methods, strategies and techniques to assist with concept development and attainment.

574  Integrated Science for the Elementary School. 3 hrs.
   Study and application of the concepts and activities included in an integrated science program for the elementary school.

575  Integrated Science for the Middle School. 3 hrs.
   Study and applications of the concepts and activities included in an integrated science program for the middle school.

576  Wave Phenomena and Electricity for the Elementary/Middle School. 3 hrs.
   A study of the fundamental principals of physics focusing on wave phenomena and electricity for the elementary/middle school teacher.

577  Energy and Matter for the Elementary/Middle School. 3 hrs.
   A study of the fundamental principles of physics focusing on energy and matter for elementary and middle school teachers.

580-582  Special Topics. 1-4 hrs.
585-588  Independent Study. 1-4 hrs.
591-594  Workshop. 1-4 hrs.

CURRICULUM AND INSTRUCTION: SPECIAL EDUCATION (CISP)

510  Introduction to Instruction Practices/Exceptional Children. 3 hrs.
   An introductory course on applied planning and instructional approaches for the exceptional child. The course will introduce students to validated instructional practices for the beginning classroom teacher.

520  Introduction to Exceptional Children. 3 hrs.
   An introduction to the study of children who deviate from the average in mental, physical, and social characteristics, including a study of the characteristics of such children and the adaptation of educational procedures to their abilities and disabilities.
Courses of Instruction

Marshall University
665  Assessment in Preschool Special Education. 3 hrs.
An overview of issues in the identification, screening and assessment of young handicapped children, specific assessment techniques for working with families and interdisciplinary teams in the assessment process.

666  Curriculum and Methods in Preschool Special Education. 3 hrs.
A review of curriculum development and methodology used to teach young children with handicaps. Evaluation techniques, program development and management, adaptation of materials and equipment and program models are presented.

673  Field Experience: Preschool Special Education. 3 hrs.
Supervised participation and directed teaching activities in an early childhood special education program across ages, disabilities and severity levels. Activities with non-handicapped preschoolers are also required.

674  Practicum: Preschool Special Education. 3 hrs.
Supervised teaching in a variety of early childhood special education programs across ages, disabilities, and severity levels. Experiences with non-handicapped preschoolers are required. Specific competencies will be individually determined.

CURRICULUM AND INSTRUCTION: VISUAL IMPAIRMENTS (CIVI)

500  Introduction to Visual Impairments. 3 hrs.
Introduction to educational programs and services for students with visual impairments, history, definitions, incidence and prevalence, development, psychosocial aspects, service delivery models, issues, and professionalism.

501  Reading and Writing Strategies/Instruction for Students with Visual Impairments. 3 hrs.
Knowledge and skills in reading and writing literary braille code, braillewriter, slate and stylus, proofreading, interlining, basic Nemeth mathematics code, textbook formatting, computer translation, overview of other braille codes.

502  Structures and Functions of the Human Visual System. 3 hrs.
Structure and function of the eye, development of the visual system, causes of eye conditions, vision assessments, environmental modifications, relationship to other disabilities, and neurological aspects of visual impairment.

503  Assessment and Program Planning of Students with Visual Impairments. 3 hrs.
Design and adaptation of instruction for students with visual impairments, expanded core curriculum, teaching literacy and other communication skills, assessment, early childhood intervention, parent involvement, and collaboration.

504  Assessment and Program Planning of Students with Visual Impairments and Additional Disabilities. 3 hrs.
Strategies for students with visual impairments and severe/multiple disabilities, interaction of sensory disabilities with other disabilities, functional curricula, alternative communication and mobility systems, and collaboration.

505  Braille. 3 hrs.
This course will provide the student with basic skills in literary braille transcription and codes. Students will acquire competence in reading and writing braille and the use of the Perkins braillewriter, slate and stylus, and Perky Duck Software. Techniques for braille instruction of school-aged students and techniques for pre-braille activities for younger children will also be taught.

500-507 Advanced Braille and Technology for Teaching Students with Visual Impairments. 3 hrs.
Codes and techniques for advanced braille. Essential skills in transcribing Nemeth code for mathematics and science, formatting techniques, and computer translation. (PR: CIVI 501 or equivalent)

600  Math Methods for Visually Impaired. 3 hrs.
An exploration of scientifically-based instructional math research will be developed and applied to the visually impaired. Emphasis will be placed on Nemeth Code and linkage to content standards and objectives. (PR: CIVI 500 and CIVI 501)

Three hundred documented hours of supervised practicum experiences with students with visual impairments, including those with severe/multiple disabilities ranging from infancy to early adulthood. (PR: Permission of instructor)

602  Practicum in Visual Impairment II. 3 hrs.
The graduate student will complete an advanced selection of experiences in inclusive and residential settings in order to demonstrate competence as an entry-level teacher. (PR: Permission of instructor)

603  Basic Orientation and Mobility Skills. 3 hrs.
Strategies for teaching and reinforcing orientation mobility skills, basic concept development, movement, exploration of space in the home and non-handicapped preschoolers are also required.

666  Curriculum and Methods in Preschool Special Education. 3 hrs.
Implementation of research proposal developed in DTS 690 and development of manuscript to describe findings. (PR: DTS 690)
EARLY CHILDHOOD EDUCATION (ECE)

530 Preschool Curriculum and Methods. 3 hrs.
Historical and contemporary curriculum and methods for preschool children with an emphasis on current best practices.

535 Administration of Early Childhood Programs. 3 hrs.
This course examines the administration and educational aspects of early childhood education programs. Classroom observation is required.

585-588 Independent Study. 1-4 hrs.
Limit of 6 hours of Independent Study to be used in master’s degree program (PR: permission of Program Director and GPA of 3.0)

ECONOMICS (ECN)

501 Economic Analysis. 3 hrs.
Overview of the basic principles of both microeconomics and macroeconomics.

505 Environmental Economics. 3 hrs.
The application of basic economic theory to a wide range of environmental problems, including pollution, natural resource exhaustion, population and economic growth. (PR: ECN 253 or permission of GSM academic advisor)

508 Comparative Economic Systems. 3 hrs.
Marxism, capitalism, communism, fascism and socialism considered as theories, movements and actual political economics. (PR: ECN 253, or permission of GSM academic advisor)

515 Regional Economics. 3 hrs.
A study of location theory and regional development within a framework of economic theory. (PR: ECN 253 or permission of GSM academic advisor)

520 International Economics. 3 hrs.
Movement of goods and balance of payments among nations; exchange rates; exchange controls and tariffs; problems and policies. (PR: ECN 253 or permission of GSM academic advisor)

522 Introduction to Mathematical Economics. 3 hrs.
Modern mathematical methods for use in economics and other social sciences. (PR: ECN 253 and Mathematics 203, or permission of GSM academic advisor)

540 History of Economic Thought. 3 hrs.
Economic theories and ideas from the earliest economists to those of Marshall and Keynes. (PR: ECN 253 or permission of GSM academic advisor)

550 Public Finance. 3 hrs.
Analysis of governmental activities pertaining to raising of revenue and expenditure of monies; analysis of public debt and fiscal programs at all levels of government. (PR: ECN 253 or permission of GSM academic advisor)

560 Economic Development. 3 hrs.
A study of the problems, dynamics and policies of economic growth and development in underdeveloped and developed countries. (PR: ECN 253 or permission of GSM academic advisor)

561 Economics Education Workshop. 3 hrs.
Intensive review of subject matter and teaching methods in economics for elementary and high school teachers. (PR: Consent of instructor or grant scholarship)

562 Economics Education Workshop 1-3 hrs.
Intensive review of subject matter and teaching methods in economics for elementary and high school teachers. (PR: Consent of instructor or grant scholarship)

620 The United States and The Global Economy. 3 hrs.
A study of the interdependent and transnational nature of the global economy with an emphasis on contemporary global economic issues, commercial policies, trading blocs, developing countries and world economic agencies. (PR: GSM admission)

630 Managerial Economics. 3 hrs.
Utilization of microeconomic theory and optimization techniques for management decision making. (PR: Full M.B.A. admission)

650-651 Special Topics. 1-3; 1-3 hrs.
Members of the department may teach, when necessary, any economics subject not listed among current course offerings. (PR: Nine hours of economics and permission of division head and of GSM academic advisor)

656 Labor Economics. 3 hrs.
Theoretical and empirical analysis of labor markets, wage determination, hours of work, unemployment and inflation, unions and collective bargaining and related subjects in their social and legal contexts. (PR: Full M.B.A. admission)

660 Independent Study. 1-4 hrs.
Independent study of a specific nature under the supervision of a qualified faculty member. Hours of credit are determined by the magnitude of the project. (PR: Permission of division head and of GSM academic advisor)

EDUCATION
(See Curriculum and Instruction)

EDUCATIONAL FOUNDATIONS (EDF)

502 Psychology of the Middle Childhood Student. 3 hrs.
A course in the study of developmental principles relating to the physical, cognitive, social, and moral development of the middle childhood student 10-14 years old.

510 Contemporary Issues in Education. 3 hrs.
The impact of contemporary forces in education with emphasis on current educational issues.

513 Human Growth and Development Birth-8. 3 hrs.
A study of various topics and instructional implications for birth-8.

514 Human Growth and Development Adolescents. 3 hrs.
A study of various topics and instructional implications for adolescents.

515 History of Modern Education. 3 hrs.
Our debt to the ancient Hebrews, Greeks, and Romans. Emphasis also is placed upon the movements since the beginning of the Renaissance.

517 Statistical Methods. 3 hrs.
A foundation course in descriptive and inferential statistics as applied in education and the social sciences.

537 MAT Level I Clinical Experience. 0 hrs.
Thirty five-hours of public school clinical experience in middle/secondary schools designed to provide an opportunity for MAT students to work with faculty, staff and students in a teaching environment. (CR: EDF 616 or EDF 619)
**Graduate Catalog 2015-2016**

**Courses of Instruction**

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**ELECTRICAL ENGINEERING (EE)**

580-583  Special Topics. 1-4 hrs.

585-588  Independent Studies. 1-4 hrs.

610  Trends and Issues in Education. 3 hrs.

An investigation of current trends and issues in education through extensive reading, research and discussions. Implications for schools, classrooms, and teachers are the focus of the course.

612  Educational Evaluation. 3 hrs.

A study of the fundamental skills needed to evaluate educational progress at the individual, classroom, program, and school levels.

615  History of Education in the United States. 3 hrs.

Development of public and private educational systems in the United States.

616  Advanced Studies in Human Development. 3 hrs.

The nature of human growth and development from infancy through adulthood. **MAT students only.** (CR: EDF 537)

617  Multiple Regression. 3 hrs.

A first course in Multiple Regression Analysis and its application. Designed to be cross-disciplinary. Of interest to students in Education, the Social, Behavioral and Natural Sciences.

618  Multilevel Analysis and Growth Models. 3 hrs.

An introduction to applied multilevel analysis and growth curve modeling for nested educational data. The nested data may have a repeated measures dependent variable.

619  Educational Psychology. 3 hrs.

Study of learning theories and their applications to teaching.

620  Mixed Methods Research. 3 hrs.

Integrates quantitative and qualitative approaches to research, couching these models within developing theories for and approaches to mixed methods research in education and closely related fields.

621  Educational Research and Writing. 3 hrs.

Research methods, techniques, and their application to education.

625  Qualitative Research in Education. 3 hrs.

Study of qualitative research methods: understanding historical and philosophical foundations of qualitative research and developing expertise in qualitative research strategies including participant observation, interviewing and inductive content analysis of data.

626  Advanced Qualitative Research in Education. 3 hrs.

Advanced study of selected topics in qualitative research. Emphasis on application of qualitative research knowledge and skills. (PR: EDF 625)

630  Comparative Education. 3 hrs.

The study of the origins, nature, scope, basic literature and methodology of comparative education.

631  Gender and Education. 3 hrs.

The course focuses on gender relations in education and schooling. The course addresses gender in relation to curriculum and knowledge, pedagogy and instructional arrangements, and administration and policy issues. (PR: EDF 621 or equivalent)

635  Policy Studies in Education. 3 hrs.

The course focuses on current policy issues facing educators today. The course offers conceptual and analytical tools for a critical examination of the uncertain political environment of schooling.

636  Advanced Classroom Assessment. 3 hrs.

History, philosophy and advanced statistical methods for testing, measuring and evaluating pupil behavior are studied.

637  MAT Level II Clinical Experience. 0 hrs.

Seventy-five-hour secondary public school experience provides opportunity for preservice, master’s-level teachers to put theory into classroom practice through observation, participation, reflection, individual/small group teaching, and up-front classroom teaching. (PR: EDF 537; CR: CI 515)

640  Literature. 1-3 hrs.

A program of reading, either extensive or intensive, and reports on a group of outstanding contributions to education; readings selected with guidance of advisor. Only one registration for this course is permitted. (CR: Permission of instructor)

641  Seminar. 2-3 hrs.

A guided program of readings, reports and discussions. No student may register for this course a second time.

660  Philosophy of Education. 3 hrs.

Surveys basic philosophy schools and concepts and their application to educational practice.

665  Sociology of American Schools. 3 hrs.

American school organizational patterns interpreted sociologically; role of power and bureaucracy, social and cultural change, stratification and social mobility, and values; analysis of school rituals and ceremonies.

677  MAT Level III Clinical Experience. 3-9 hrs.

Culminating clinical experience through directed activity in a clinical setting for MAT/PBC students. (PR: EDF 537 and EDF 637)

679  Problem Report. 1-3 hrs.

The preparation of a written report on a research problem, experiment or field project in education. This report is not a thesis; students must complete an additional 33 credit hours unless 697 is followed by 681 for 3 hours credit.

681  Thesis. 3-6 hrs.

May be taken for 3 hours of credit by students whose reports in 679 were excellent and are of such character as to warrant further research. Students completing 679 and 681 for a total of 6 hours may qualify for the master’s degree by earning an additional 26 hours of credit. Students completing 681 must defend their theses in an oral examination.

711  Survey Research in Education. 3 hrs.

Advanced research, theories, methods, and procedures for conducting survey research in education.

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**ENGINEERING (ENGR)**

570  Finite Element Analysis. 3 hrs.

Theory and applications of the finite element method to problems in the area of static and dynamic structural analysis, heat transfer, fluids, and analogous solution.

610  Applied Statistics 3 hrs.

Practical application of statistical techniques to decision-making, forecasting, optimization, experimental design. Interpretation of data using central tendency and dispersion, t-test, F-test, variance analysis, correlation, and linear regression. (PR: Permission)

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**Graduate Catalog 2015-2016 Courses of Instruction** 243
620 Computer Applications 3 hrs.
Introduction to current software technology to solve problems of interest to technical professionals. Covers the use of tables, databases, modeling, curve fitting, and solution of equations. (PR: Permission)

650-653 Special Topics. 1-4 hrs.
Formal study of engineering topics of current interest. (PR: Consent)

682 Research. 1-6 hrs.
Completion of research under the supervision of a faculty member. Six semester hours of credit in research are applied toward the Thesis Option in the engineering M.S. degrees.

685-688 Independent Study. 1-4 hrs.
An approved study of special interest concerning engineering, under the supervision of a faculty member. (PR: Consent)

699 Comprehensive Project. 3 hrs.
Completion of comprehensive project under the supervision of a faculty member. Includes final written submittal and public oral presentation. Fulfills engineering M.S. requirement for Project Option.

ENGINEERING MANAGEMENT (EM)

620 Management of Technical Human Resources and Organizations. 3 hrs.
Principles leading to better management and development of technical human resources and organizations. Included are concepts technical managers need to change themselves positively and to lead others toward desired behaviors.

646 Operations Research I. 3 hrs.
Examination of the methodology of operations research, including linear programming, transportation methods, network flows, economic analysis, decision analysis, queueing theory and simulation. (PR: ENGR 610)

647 Operations Research II. 3 hrs.
A continuation of EM 646 including an introduction to sensitivity and parametric analysis in linear programming, integer programming, nonlinear programming, dynamic programming, reliability theory, and inventory control. (PR: EM 646)

650-653 Special Topics. 1-4 hrs.
Study of special topics of an advanced nature. (PR: Consent)

660 Project Management. 3 hrs.
Provides the student with a practical knowledge of how to integrate effectively the functional efforts of many in the execution of programs and projects.

661 Advanced Project Management. 3 hrs.
Course is designed to increase proficiency in the advanced aspects of project management. Participants will become aware of all the project management processes in PMI's Project Management Body of Knowledge. (PR: EM 660)

664 Management of Research & Development Organizations. 3 hrs.
Techniques and methods for effective management of research and development organizations, projects, and personnel. (PR: EM 660)

665 Management of Engineering Organizations. 3 hrs.
Techniques and methods for effective management of engineering firms, departments, and personnel. (PR: EM 660)

668 Operations Management. 3 hrs.
Examination of the quantitative and conceptual tools for generating goods and services in manufacturing and non-manufacturing organizations.

670 Seminar in Engineering Management. 3 hrs.
Provides the student an opportunity to examine issues in engineering management and to evaluate their consequences in organizations, in the profession, and in society. (PR: Consent)

675 Engineering Economics. 3 hrs.
The concepts and methods for the financial calculations involving time value of money and uncertainty. Capital and departmental budgeting processes and engineering inputs to cost accounting. (PR: Consent)

694 Engineering Law. 3 hrs.
The American legal system, contracts and specifications, liability of professional engineers, product liability, agency relationships, patent and proprietary rights, and special problems in contracts are studied.

ENGLISH (ENG)

502 Composition and Rhetoric for Teachers. 3 hrs.
Study of rhetorical invention and models of composing process, with intensive practice in writing.

505 History of the English Language. 3 hrs.
The phonology, spelling, grammar, syntax, and vocabulary of previous language periods as background to Modern English.

506 Advanced Expository Writing. 3 hrs.
Development and refinement of writing skills—description, organization, and style—with an emphasis on informative and explanatory genres.

509 Milton. 3 hrs.
Biographical and critical study, including Milton’s English poetry and prose, and his literary and intellectual milieu.

510 Shakespeare’s Comedies, Tragicomedies, and Romances. 3 hrs.
Intensive study of Shakespeare’s comedies, tragicomedies, and late romances. Also includes the sonnets and Venus and Adonis.

511 Chaucer. 3 hrs.
The poetry of Chaucer, including the Canterbury Tales, in the light of medieval tradition and critical analysis.

512 Shakespeare’s Histories and Tragedies. 3 hrs.
Intensive study of Shakespeare’s histories and tragedies.

514 Nineteenth-Century British Novel. 3 hrs.
Austen, Scott, the Brontes, Eliot, Dickens, Thackeray, Trollope, Meredith, Hardy, Butler, Wilde, and their contemporaries.

515 Victorian Poetry. 3 hrs.
Emphasis on Tennyson, the Brownings, Arnold, Hopkins, Christina Rossetti, Hardy and the pre-Raphaelites.

516 Victorian Nonfiction. 3 hrs.
Essays, speeches, treatises, and other works from Britain’s Victorian age. Includes such authors as Arnold, Carlyle, Darwin, Huxley, Eliot, Martineau, Mill, Newman, and others.

517 British Drama to 1642. 3 hrs.
Non-Shakespearean British drama from its beginnings to the closing of the theatres.

519 Approaches to Teaching Literature. 3 hrs.
The intensive study of the pedagogy of literature and literary critical theory and its classroom applications.

521 American Literature to 1830. 3 hrs.
Study of American literature of the Puritan, Colonial, and Federal periods, including such authors as Jonathan Edwards, Edward Taylor, Anne Bradstreet, Benjamin Franklin, Phillis Wheatley, Washington Irving, and Catharine Maria Sedgwick.
American Literature, 1830-1865. 3 hrs.
American literature of the Romantic Period, including such authors as Emerson, Poe, Melville, Hawthorne, Dickinson, Whitman, Fuller, Douglass, Stowe, and other figures of the period.

American Literature, 1865-1914. 3 hrs.
American literature of the Realistic and Naturalistic periods, including such authors as Howells, Twain, James, Dreiser, Chesnutt, Wharton, Crane, and Chopin.

American Literature after 1914. 3 hrs.
American literature after 1914, including such authors as Faulkner, Hemingway, Cather, Mailer, Carver, Vonnegut, Morrison and others.

International Literature. 3 hrs.
Readings in contemporary literature from the non Anglo-European world. Texts by Asian, African, South American, Australian, and other authors.

Young Adult Literature. 3 hrs.
Critical study of literature intended for adolescent and pre-adolescent readers. Focus on coming-of-age and identity issues, and on texts representing cultural, ethnic, and social diversities of U.S. and world literatures.

Contemporary Literature. 3 hrs.
Examines literature of the present and its influences, including the inter-relationship between literature and other forms of textual/cultural production (e.g., cinema, television, popular music, comix/manda, ’zines, blogs, hypertext).

Twentieth-Century British and Irish Poetry. 3 hrs.
British poetry since the Victorian period.

Twentieth-Century American Poetry. 3 hrs.
American poetry since 1900.

Modernism. 3 hrs.
A study of trans-Atlantic Modernist writers, including both poetry and prose.

Medieval British Literature. 3 hrs.
Old English elegiac and heroic poetry; Middle English lyrics and romances; the Ricardian poets and Malory.

Tudor Literature: Poetry and Prose of the Sixteenth Century. 3 hrs.
Survey may include works by More, Skelton, Wyatt, Sidney, Spenser, Nash, Marlowe, Raleigh, Lyly, Sidney, Mary Sidney, and Shakespeare, excluding drama.

Seventeenth-Century Literature: Poetry and Prose. 3 hrs.
Survey may include Donne and the Metaphysical poets, the Cavalier lyricists, Bacon, Browne, Wroth, Cary, Lanyer, Herbert, Jonson, Burton, Walton, Hobbes, and Bunyan.

British Romantic Poets. 3 hrs.
Emphasis on Blake, Wordsworth, Coleridge, Byron, Shelley, and Keats.

Literary Criticism. 3 hrs.
Historical study, with application of principles.

Contemporary Fiction: Form & Theory. 3 hrs.
Readings in contemporary fiction addressing the work in terms of the formal and theoretical concerns that drive it. Texts that challenge our notions of genre, form, theory, and practice.

Composition and Writing Center Theory. 3 hrs.
Introduces students to the study of teaching writing in a classroom setting and in one-to-one tutoring. (PR: graduate program admission)

Literacy Studies. 3 hrs.
Theories of writing and reading development with a focus on cultural, linguistic, and rhetorical influences on literacy acquisition.

Visual Rhetoric. 3 hrs.
Study of the production, strategies, reception, and persuasive effects of visual texts.

Introduction to Linguistics. 3 hrs.
The structural and descriptive approach to the study of the English language.

Structures of English Language. 3 hrs.

Introduction to Sociolinguistics. 3 hrs.
Sociolinguistics is the study of the effects of language in society, relevant to discourse practices, language attitudes, variations, shifts, and changes.

Special Topics. 1-4 hrs. each.
(PR: Permission of the chair)

Independent Study. 1-4 hrs.
(PR: Permission of Director of Graduate Programs. Only one independent study may count toward degree without permission of Director of Graduate Programs.)

Creative Writing: Poetry Workshop. 3 hrs.
A practical and intensive class in exploring the varieties of creative expression; exercises on the creating of verse in different forms and styles.

Creative Writing: Fiction Workshop. 3 hrs.
A forum for presentation, discussion, and refinement of the student’s work, either short stories or novels.

Creative Writing: Nonfiction Workshop. 3 hrs.
A writing workshop where students develop and refine their original creative nonfiction (memoir, biography, essays, travel/leisure writing, etc.), employing techniques typically reserved for fiction (dialogue, narrative, poetic language, etc.).

Folk and Popular Literature. 3 hrs.
A study of types, variants, backgrounds, and influences. (PR: ENg 630 or permission of the chair)

TESOL Methods. 3 hrs.
This course aims at teaching English for academic purposes, ranging from teaching language skills to pragmatics to cultural understanding in relation to theories of language and language learning. (PR: ENg 575 and ENg 576)

TESOL Curriculum Development and Materials Design. 3 hrs.
This course introduces students to core principles of curriculum development for the language classroom. Students develop the abilities to critique and adapt textbooks and to design and create classroom materials.

TESOL Language Assessment. 3 hrs.
Students are introduced to core principles of language assessment. By exploring a variety of assessment techniques, students develop the ability to critique current assessments and to build their own assessments.

Second Language Learning. 3 hrs.
This course starts with an overview of disciplinary frameworks of language development, then addresses the four major theoretical perspectives: linguistics, cognitive, sociolinguistic and socioculture. (PR: ENg 575; ENg 576)

Twentieth-Century British Novel. 3 hrs.
Major British novelists of the twentieth century. (PR: ENg 630 or permission of the chair)

Twentieth-Century American Novel. 3 hrs.
Major American novelists of the twentieth century. (PR: ENg 630 or permission of the chair)
An introduction to adsorption, condensation, incineration, absorption, and process modification relevant to the design of abatement systems for gaseous air pollutants. (PR: unit operations, thermodynamics and calculus)
612 Air Pollution Design II: Control of Particulate Emissions. 3 hrs.
An introduction to equipment, processes, and basic principles relevant to the design of particulate collection systems including electrostatic precipitators, fabric filtration units, cyclones, and high energy scrubbers. (PR: ES 604 or courses in physics, fluid mechanics, and process design)

615 Environmental Chemistry. 3 hrs.
Fundamental principles governing the various aspects of chemistry relevant to the environment will be addressed. The chemistry of waste treatment, cyclical processes and other applications will be evaluated. (PR: Consent)

616 Wastewater Treatment Facility Design. 3 hrs.
Fundamental principles and applied practices of wastewater treatment facilities. Includes performance analysis, component selection, and system design for physical, chemical, and biological processes. (PR: ENVE 615)

617 Water Treatment Facility Design. 3 hrs.
Fundamental principles and applied practices of water quality and water treatment facilities. Includes analysis of source waters, and design of physical and chemical system components. (PR: ENVE 615)

618 Pollution Prevention. 3 hrs.
Introduces the student to the basic understanding and criteria required for establishing a pollution prevention program, including a review of successful industry practices. Emphasis on management strategies. (PR: undergraduate degree in science or engineering)

620 Solid Waste Management. 3 hrs.
Solid waste management and minimization: options, methods, laws and regulations, Landfill design, testing, operation, monitoring, and closure. Use of composting in landfills. Incinerator design and operation. Separation and recycling approaches.

625 Hazardous Waste Management. 3 hrs.

650-653 Special Topics
Occasional special offerings in Environmental Engineering. (PR: Consent)

663 Environmental Permitting. 3 hrs.
The permit process for the construction and operation of facilities, including stream crossing, wetlands, etc.; permits under Clean Air Act, Clean Water Act, NPDES, RCRA and TSCA.

670 Hydrology and Drainage Control. 1-6 hrs.
The course provides an introduction to practical applications of hydrology and sedimentology including precipitation, infiltration, quantification of runoff, flow modeling, soil erosion, sediment transport, basic highway drainage concepts and design of channels and other control structures.

671 Hydraulic Structures. 3 hrs.
Analysis and design of water conveyance channels and hydraulic structures, such as siphons, chutes, weirs, flumes, dams, spillways, gates, locks, storm-seurge barriers, and outlet works.

672 Watershed Modeling. 3 hrs.
Setup, execution, and calibration of numerical watershed models. Includes the rational method, TR-55, HEC-1, and HECHMS. Emphasis on watershed analysis for decision making and drainage design.

673 Industrial Ventilation. 3 hrs.
The design and analysis of industrial ventilation systems, including properties of air contaminants; hood, duct and fan design; system performance; mine ventilation; air cleaning devices; testing; diagnosis; troubleshooting, cost analysis. (PR: Consent.)

675 Industrial Noise Control. 3 hrs.
Physics of sound, absorption and reflection, sound level measurements and instruments, and noise control criteria; audiometry and the physiology of hearing; community noise abatement; laws and regulations. (PR: undergraduate degree in science or engineering)

680 Air Pollutant Dispersion and Meteorological Modeling. 3 hrs.
Meteorological concepts with emphasis on air pollution; atmospheric dynamics, adiabatic processes; temperature profiles, behavior of stack effluent, atmospheric chemistry; attenuation of solar radiation, and climatology application to dispersion models. (PR: undergraduate course in physics, and spreadsheet capability)

681 Environmental Engineering Design. 3 hrs.
Principles of engineering design of water and wastewater treatment systems and processes, including physical, chemical, and biological treatment and handling of treatment residuals. Includes coverage of relevant water quality concepts. (PR: Engineering degree or permission)

682 Environmental Remediation Technologies. 3 hrs.
Decontamination or removal of pollutants from soil. Aeration of excavated soil on site. Use of solvents and surfactants as removal aids. Removal of soil for treatment at an off-site facility. (PR: ES 651)

683 Environmental Geotechnology. 3 hrs.
Surface and subsurface geology; geotechnical properties of soil and rock. Geotechnical engineering design aspects of landfills, groundwater barriers, tunneling. Mechanics of ground movement; sediment and erosion control. (PR: engineering or geology degree)

ENVIRONMENTAL SCIENCE (ES)

514 Environmental Risk Assessment. 3 hrs.
The course will provide a comprehensive review of currently used methods and applications of risk assessment in environmental science and engineering. The course will focus on the analysis of potential risks in all media, and will include state and federal requirements and guidelines for human health and ecological risk assessment. (PR: Consent)

522 Environmental Sustainability. 3 hrs.
The course will introduce students to the ideas behind, the debates within, and the work that goes into sustainability, including a review of things we value, how nature works, and intelligent policy decisions.

550 Environmental Law I. 3 hrs.
Introduction to major federal environmental legislation and related state programs, including policy issues, judicial review, and practical effects. Includes CERCLA, RCRA, Clean Water Act, Clean Air Act, NEPA, ESA, and SDWA. (PR: Consent)

554 Watershed Protection. 3 hrs.
This course reviews key components of watershed structure and functions before investigating and applying concepts for managing and restoring aquatic ecosystems.

582-83 Special Topics. 1-4 hrs.
Occasional offerings of current topics in environmental sciences, providing important supplementary material for participating students.

585 Introduction to Environmental Science. 3 hrs.
The principles of chemistry, geology, and mathematics used in pollution analysis and control. Topographic maps, environmental regulations, field testing, and compliance. Economics of use of pollution control devices.

586-88 Independent Study. 1-4 hrs.
An approved study of special interest concerning environmental science that is appropriate for the student's program of study. Carried out under the supervision of a faculty member.
A philosophical examination of both the fundamental ethical principles, as well as the most common ethical dilemmas and controversies found in

602 A Study of the West Virginia Environment. 3 hrs.
An overview of the diversity of the local natural environment, including the plants, insects, amphibians, reptiles, other wildlife, and the impact of human activities on the local environment.

603 Seminar In Current Environmental Issues. 3 hrs.
The influence of environmental laws, common law, contract law, tort law, and regulatory interpretations, as well as the impact of citizens’ groups, professional societies, and trade associations on current practice. (PR: Consent)

604 Air Pollution. 3 hrs.
Major air pollution sources; meteorological concepts; physical and chemical characterization; effects on plant and animal life; and development of air pollution laws, with emphasis on West Virginia regulations. (PR: Consent)

605 Analytical Principles of Environmental Sampling. 3 hrs.
Identifying and measuring contaminants in air, water, soil, and sludge. Methods of analysis including gas chromatography, nuclear magnetic resonance, colorimetry, infrared absorption, ultraviolet absorption, atomic absorption, and mass spectrometry. (PR: Chemistry and ES 600, or equivalent experience)

609 Topics in Bioscience Education. 1-6 hrs
Selected topics of interest to teachers of biology. (PR: Consent)

610 Environmental Sampling Practice. 3 hrs.
Current practice in environmental testing and monitoring. Traditional wastewater (SPSY tests, bioassay analysis, aquatic toxicity. Current procedures in gas chromatographic analysis, mass spectrometry. Sample preservation, quality control, and quality assurance. (PR: analytical chemistry and instrumental methods, or ES 605)

620 Environmental Management Systems. 3 hrs.
EMS principles and elements; environmental, health and safety regulatory issues; ISO 14000 EMS specifications and guidelines; environmental auditing; environmental performance evaluation; life cycle assessment and environmental labeling.

626 Remote Sensing and Map Use. 3 hrs.
Introduction to topographic, soil, and geologic maps and aerial and satellite photography as sources of environmental information. Application of various data sources to specific types of environmental problems.

630 Environmental Site Assessment. 3 hrs.
Site inspection and investigation, emphasizing the “due diligence” clause of Section 107 of the Comprehensive Environmental Response Compensation Liability Act of 1980, site remediation, and data analysis and reporting.

640 Groundwater Principles and Monitoring. 3 hrs.
Introduction to groundwater hydrogeology; including porosity, hydraulic conductivity, aquifers, groundwater flow, well hydraulics, groundwater geology, and water chemistry. (PR: A background in environmental science or geology is recommended)

645 Applied Hydrogeology. 3 hrs.
The fundamentals of hydrogeology are utilized to implement a case study investigation of a contaminated groundwater site from the planning stage through a final report. (PR: ES 640 or equivalent experience)

646 Dynamics of Ecosystems. 3 hrs
Species interaction; population, community and ecosystem ecology; productivity; nutrient cycling; physiological ecology, population dynamics; pollution and conservation; and aquatic, marine, and terrestrial ecosystems. (PR: Consent)

648 Vegetation of West Virginia. 3 hrs.
Introduces the student with a minimal biology background to basic field and laboratory botany. Introduction to science of plant taxonomy and community ecology, with emphasis given to West Virginia. (PR: Consent)

650-653 Special Topics in Environmental Science. 1-4 hrs.
(PR: Consent)

654 Environmental Microbiology. 3 hrs.
Microbiology of the environment; ecology of the microbial cell; microbial ecosystems; the microbe’s interaction with other micro-organisms and macro-organisms; how micro-organisms obtain nutrients, and the effect on the environment. (PR: General biology and general chemistry or consent)

655 Environmental Ethics. 3 hrs.
Introduction to the subject of ethics, environmental ethical theory, moral reasoning, free market regulation, right to know, proprietary information, product liability, cost-benefit analysis, risk assessment, waste disposal, and resource depletion. (PR: Consent)

656 Preparation and Evaluation of Environmental Impact Statements. 3 hrs.
A practical course designed to provide students with the ability to prepare and evaluate impact statements. The course is based on the concepts of the environment as a single interrelated system.

661 Environmental Regulations 3 hrs.
Practical applications and concentrated study of regulations under all major federal environmental programs, including permitting, reporting, and other compliance issues. Includes discussion of procedures used in development of regulations. (PR: ES 660)

662 Environmental Policy 3 hrs.
Introduction to processes for formulation and development of environmental policy, including administrative procedure and the policy process. Discussion of current environmental policy issues in relevant political, legal, social, and scientific contexts.

663 Environmental Law II. 3 hrs.
Course covers three general topic areas: environmental assessment and biodiversity (NEPA and ESA), risk management and regulation of toxic substances (TSCA, FIFRA, and SDWA), and international environmental law. (PR: ES 660)

665 Water Resources Management. 1-6 hrs.
Course surveys the processes that govern the earth’s hydrologic cycle and the human activities which effect that cycle. It seeks to provide an integrated science/management/policy approach to water resource issues.

670 Sustainable Energy. 3 hrs.
The course focuses on the technological and cost fundamentals of what is generally considered sustainable energy technologies, including solar, wind, biomass and other energy sources.

674 Epidemiological Health Research Techniques. 3 hrs.
An introduction to techniques of epidemiological health research. The primary focus will be health problems in the industrial setting.

675 Brownfields Management. 1-6 hrs.
Environmental management and development of abandoned, idled or underused industrial or commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination.

680 Thesis. 1-6 hrs.
A student completing ES 680 must defend his or her thesis in an oral examination.

EXERCISE SCIENCE AND SPORT (ESS)

511 Ethics in Sport. 3 hrs.
A philosophical examination of both the fundamental ethical principles, as well as the most common ethical dilemmas and controversies found in sport.
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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>671</td>
<td>Research Methods in Sport Studies</td>
<td>3 hrs.</td>
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<td>670</td>
<td>Research in Kinesiology</td>
<td>3 hrs.</td>
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<td></td>
<td>A study of objectives, methods, personnel, facilities, and program uniqueness of the physical education of selected nations and world regions.</td>
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<td>654</td>
<td>Contemporary and Comparative Physical Education</td>
<td>3 hrs.</td>
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<td></td>
<td>Examines the complexity of human behavior in organizational settings in sport and leisure industry, and the role of managers and leaders in affecting that behavior.</td>
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<td>651</td>
<td>Mechanical Analysis of Motor Skills</td>
<td>3 hrs.</td>
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<td>650</td>
<td>Advanced Readings in Sports Ethics</td>
<td>3 hrs.</td>
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<td>A critical analysis of and engagement with leading ethical thinking as applied to sport.</td>
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<td>642</td>
<td>Devising and Implementing Training and Conditioning Programs</td>
<td>3 hrs.</td>
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<td>An indepth study of the principles and problems of coaching.</td>
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<td>641</td>
<td>Advanced Exercise Testing</td>
<td>3 hrs.</td>
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<td></td>
<td>Exercise testing techniques presented to determine the biological responses to exercise stress and to investigate the physiological limitations to human performance as it relates to disease and/or sport performance. (PR: ESS 621)</td>
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<tr>
<td>640</td>
<td>Exercise Physiology I (Cardiorespiratory and Metabolic Adaptations)</td>
<td>3 hrs.</td>
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<td>Topics would include bioenergetics, integration of metabolism, metabolic response to exercise, neuroendocrine control of metabolism during exercise, cardiovascular control and adaptation during exercise and respiratory control and adaptation during exercise. (REC: ESS 201 and 345 or equivalent)</td>
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<tr>
<td>639</td>
<td>Advanced Exercise Physiology II (Neuromuscular and Environmental Adaptations)</td>
<td>3 hrs.</td>
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<td>The course is designed to study the neuromuscular and environmental adaptations to both the acute and chronic effects of exercise. Cellular and Molecular Adaptations will be explored. (PR: ESS 621)</td>
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<tr>
<td>638</td>
<td>Issues in Physical Education</td>
<td>3 hrs.</td>
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<td>Critical selection and analysis of current controversies in physical education. Analysis includes identification of the content fostering each issue and the systematic probing of administrative tenets and philosophical positions taken by all factions. Attempts at resolution are secondary to exploration and analysis of viewpoints.</td>
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<tr>
<td>637</td>
<td>History and Philosophy of Physical Education and Sport</td>
<td>3 hrs.</td>
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<td></td>
<td>An investigation of historical events, political and social climates, and personalities as well as philosophies which have influenced physical education and sport from early civilizations to the present.</td>
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<tr>
<td>636</td>
<td>Structural Kinesiology</td>
<td>3 hrs.</td>
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<td></td>
<td>Instruction and laboratory experiences involving musculoskeletal anatomy and biomechanics as applied to human movement.</td>
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<tr>
<td>635</td>
<td>Devising and Implementing Training and Conditioning Programs</td>
<td>3 hrs.</td>
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<td></td>
<td>Application of neuromuscular and physiological knowledge to the examination of the administration and content of existing exercise programs as well as the development of new programs. (PR: ESS 621)</td>
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<tr>
<td>634</td>
<td>Performance Techniques and Analysis</td>
<td>3 hrs.</td>
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<td></td>
<td>Analysis of lead-up, intermediate and advanced techniques of a selected team, individual or dual sports. Emphasis given to mechanics of performance psychological stress components, psychological factors, strategies and teaching/coaching methodology.</td>
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<tr>
<td>633</td>
<td>Respiratory Exercise Physiology</td>
<td>3 hrs.</td>
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<td></td>
<td>Detailed study of the anatomy and physiology of the cardiovascular system and its response to acute and chronic exercise. (PR: ESS 621, ESS 623, ESS 670)</td>
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<tr>
<td>632</td>
<td>Neuromuscular Exercise Physiology/Plasticity</td>
<td>3 hrs.</td>
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<td></td>
<td>This course is a detailed study of the structure and function of the neuromuscular system along with the etiology and functional consequences of numerous neuromuscular diseases. (PR: ESS 621, ESS 623, ESS 670)</td>
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<tr>
<td>631</td>
<td>Organizational Behavior of Sport and Leisure Industry</td>
<td>3 hrs.</td>
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<td></td>
<td>Examines the complexity of human behavior in organizational settings in sport and leisure industry, and the role of managers and leaders in affecting that behavior.</td>
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<tr>
<td>630</td>
<td>Research in Kinesiology</td>
<td>3 hrs.</td>
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<td></td>
<td>An examination of experimental research design, laboratory methods, construction of instruments, execution of research, and presentation of research papers with an emphasis on science.</td>
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<tr>
<td>629</td>
<td>Research Methods in Sport Studies</td>
<td>3 hrs.</td>
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<tr>
<td></td>
<td>This course provides students with a fundamental understanding of research principles, concepts, methods, techniques, and application related to sport studies.</td>
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</tr>
</tbody>
</table>
674  **Sport Finance / Economics. 3 hrs.**
This course will provide students with an understanding of financial and economic principles relevant to the sport industry. The course also provides a comprehensive coverage of current economic and financial issues confronting the sport industry.

675  **Marketing Management of Sport Industry. 3 hrs.**
Advanced level of marketing concepts in the sport industry.

681  **Thesis. 1-6 hrs.**

682  **Health Promotion, Disease Prevention, and Rehabilitation: Clinical Perspectives. 3 hrs.**
Examines disorder/disease prevalent in Westernized societies, with special emphasis on the rationale for intervention with exercise, nutrition, behavioral, and related strategies. (PR: ESS 621 and ESS 683)

683  **Cardiovascular Assessment. 3 hrs.**
Considers cardiovascular assessment strategies, including EKG interpretation, related medical profile variables, patient/client/athlete screening and risk stratification. (PR: ESS 621)

686  **Behavioral Aspects of Wellness, Disease, Rehabilitation. 3 hrs. I or II.**
Survey course to include the pathophysiology of stress, psychology of health, behavioral modification, neuromuscular relation/stress reduction techniques, program compliance improvement, and health counseling. (PR: ESS 641)

687  **Cardiac Life Support. 3 hrs.**
Course is designed to acquaint the student with the current methods in recognizing and treating cardiac conditions. (PR: ESS 683 or permission)

696  **Seminar in Physical Education. 3 hrs.**
A course designed for library research and discussion of critical questions in physical education. Topics to be selected will vary according to the interests of the students.

FAMILY AND CONSUMER SCIENCE (FCS)

501  **Maternal and Child Nutrition. 3 hrs.**
Nutritional requirements during prenatal and early growth periods; surveys of nutritional status.

502  **Foods of the World. 3 hrs.**
Characteristics and cultural aspects of the foods of the world.

505  **Quantity Food Production. 3 hrs.**
Basic principles of quantity food selection, preparation, and service. Laboratory application in local food institutions.

507  **Food Service Systems Management. 3 hrs.**
Administration of food service in institutions.

510  **Nutrition in Aging. 3 hrs.**
Nutritional needs of the elderly and diseases responding to nutritional therapy. Government food programs for the elderly.

515  **Family Relationships. 3 hrs.**
Relationships in the family during its life cycle, with some consideration of family life in other cultures.

516  **Prenatal and Infant Care. 3 hrs.**
Prenatal and postnatal care for mothers, development of the fetus and care of the infant throughout the first three years.

531  **Guidance of the Young Child: Practicum. 3 hrs.**
Techniques of guidance of young children with emphasis on adult child interaction.

532  **Parenting. 3 hrs.**
Examination of current challenges, problems, and issues in the field; analysis of effective strategies for parenting.

540  **Nutrition in the Home and School. 3 hrs.**
Fundamental principles of human nutrition and their application in the home and school. Designed primarily for elementary teachers.

544  **Consumer Education. 3 hrs.**
Analysis of economic factors related to provision of consumer goods and services; investigation of sources of consumer information; and means of providing economic security for families.

560  **Professional Development. 1-4 hrs.**
Courses and activities designed to meet the specific inservice needs of public school personnel. Credit may be used for certificate renewal and salary upgrading, if approved, but not in degree programs. CR/NC grading.

562-564  **Professional Development. 1-4; 1-4; 1-4 hrs.**
Courses and activities designed to meet the specific inservice needs of public school personnel. Credit may be used for certificate renewal and salary upgrading, if approved, but not in degree programs. CR/NC.

580-583  **Special Topics. 1-4; 1-4; 1-4 hrs.**

585-588  **Independent Study. 1-4; 1-4; 1-4 hrs.**

591-594  **Workshop. 2-3; 2-3; 2-3 hrs.**
Workshop in selected areas of family and consumer sciences. Credit for not more than two workshops may be counted for the master’s degree.

599  **Philosophy and Trends in Family and Consumer Sciences. 3 hrs.**
Major contemporary educational theories and their relationship to trends in the field of family and consumer sciences. (PR or CR: EDF 621)

601  **Evaluation in Family and Consumer Sciences. 3 hrs.**
Procedures for appraising student progress in the attainment of objectives; construction of evaluation instruments; analysis and interpretation of data.

602  **Curriculum Development in Family and Consumer Sciences. 3 hrs.**
Examination of bases for family and consumer sciences curricula; development of curricula for junior and senior high school programs, utilizing various organizational patterns.

603  **Current Issues in Child Development. 3 hrs.**
A study of current issues and research in child development. Designed for students with a background in child development seeking updated information or more in-depth study.

605  **Recent Developments in Clothing. 3 hrs.**
Survey of recent literature and theory in the field of clothing.

606  **Recent Developments in Foods. 3 hrs.**
Survey of recent literature and theory in the field of foods.

620  **Technology in the Hospitality and Tourism Industry. 3 hrs.**
Opportunities, threats, and effects of competing within the hospitality and tourism industry in a digital economy, i.e., one where information technology and e-commerce are the norm.

622  **Contemporary Issues and Trends in Hospitality and Tourism. 3 hrs.**
Developments, issues and problems in the hospitality and tourism industry. Examine current and emerging trends, and developments, and their implications for the hospitality and tourism industry.

623  **Security and Risk Management in Hospitality and Tourism. 3 hrs.**
Advanced investigation of security and risk management within the hospitality/tourism/foodservice industries.
625 Hospitality and Tourism Marketing Strategy. 3 hrs.
Examination of the multidimensional marketing functions applied to hospitality and tourism organizations.

626 Catering and Event Planning in Hospitality and Tourism. 3 hrs.
Theory and application of operation and management principles in the planning, organization, and implementation of on- or off-premise special catering events.

627 Food and Nutrition Management in Hospitality and Tourism. 3 hrs.
Overview of administrative concepts for directing resources within a variety of food and nutrition services/programs. Use of planning, implementation, and evaluation techniques to measure organizational and personal performance.

671 Internship in Hospitality and Tourism Management. 3 hrs.
A work experience in a hospitality and tourism organization/business for a minimum of 150 hours to maximum of 300 hours.

661 Family Economics. 3 hrs.
Factors affecting material level of living for families, expenditure patterns, and impact of social change on resource allocation. (PR: FCS 544)

665 Family Resource Management Theory and Research. 3 hrs.
Analysis of home management theory and concepts as revealed through current research in the field. (PR: FCS 527)

679 Problem Report. 1-3 hrs.

681 Thesis. 1-6 hrs.

684-685 Special Problems in Family and Consumer Sciences. 1-3; 1-3 hrs.
Problems of particular interest to the graduate student. Registration by permission of advisor. Not more than four hours of seminar credit may be counted toward a master’s degree.

690-691 Seminar. 1-3; 1-3 hrs.
Extensive readings and reports from current literature in selected areas of Family and Consumer Sciences. Not more than six hours of seminar credit may be counted toward a master’s degree.

FINANCE (FIN)

510 Principles of Business Finance. 3 hrs.
Business finance from the viewpoint of the financial manager. Use of financial statements, tools, and concepts for measuring and planning for profitability and liquidity. (PR: ACC 216 or ACC 510, ECN 253 or ECN 501, MGT 218, and MTH 203 or MGT 500)

551 Financial Planning Applications. 3 hrs.
This course includes client interactions, time value of money, personal financial statements, cash flow and debt management, asset acquisition, overview of risk management, investment planning, business ethics, and retirement planning. (PR: ECN 501, ACC 510, MGT 501)

552 Investment Planning. 3 hrs.
This course provides the student with understanding of the various types of securities traded in financial markets, investment theory and practice, portfolio construction and management, and investment strategies and tactics. (PR: FIN 551)

554 Insurance Planning and Risk Management. 3 hrs.
This course introduces risk management and insurance decisions. Topics include insurance for life, health, disability, property and liability risks, as well as annuities, group insurance, and long term care. (PR: FIN 551)

556 Income Tax Planning. 3 hrs.
This course focus on principles and current law and practice of income taxation and its impact on financial planning for individuals, couples and families as investors, employees and business owners. (PR: FIN 551)

558 Estate Planning. 3 hrs.
Estate Planning focuses on the efficient conservation and transfer of wealth, consistent with the client’s goals such as trusts, wills, probate, advanced directives, charitable giving, wealth transfers and related taxes. (PR: FIN 551)

560 Retirement Planning. 3 hrs.
The retirement planning course is to provide individuals with knowledge of retirement plans such as Social Security, Medicare, Medicaid, defined benefit and defined contribution plans and their regulatory provisions. (PR: FIN 551)

580 Special Topics. 1-4 hrs.

620 Financial Management. 3 hrs.
An examination of business corporations practicing at the level of the individual firm with emphasis on quantitative analysis of the variables which affect liquidity and profitability. (PR: MGT 601 and full M.B.A. admission or permission of GSM academic advisor)

625 Financial Problems in Business. 3 hrs.
Recognizing and solving financial problems through the use of case presentations and/or corporate annual and interim reports. (PR: FIN 620 and full M.B.A. admission or permission of GSM academic advisor)

626 Security Analysis and Portfolio Management. 3 hrs.
Analytical procedures used by institutional portfolio managers to measure both past performance of holdings and anticipated market performance of current offerings. Emphasis in this course may be expected to be more centralized in the area of fundamental analysis. (PR: FIN 620 and full M.B.A. admission or permission of GSM academic advisor)

627 Financial Institutions and Markets. 3 hrs.
An in-depth study of the flow of funds in aggregate financial systems, with emphasis on those in the United States. Because interest rates and bank reserve requirements of Federal Reserve System are all dynamic in character, the content of this course may be expected to vary as financial events of the future dictate. (PR: FIN 620 and full M.B.A. admission or permission of GSM academic advisor)

650 Special Topics. 1-3 hrs.
(Pr: Permission of the division head, full M.B.A. admission, and permission of GSM academic advisor)

660 Independent Study. 1-4 hrs.
Independent study of a specific nature under the supervision of a qualified faculty member. Hours of credit are determined by the magnitude of the project. (PR: FIN 620 and permission of division head or permission of GSM academic advisor)

665 Portfolio Theory and Capital Markets. 3 hrs.
A study of modern portfolio theory and capital market theory as applied to portfolio management. Real-world considerations are introduced through case studies and management of simulated portfolios.

FORENSIC SCIENCE (FSC)

600 Cell and Molecular Biology. 3 hrs.
A study of the molecular biology of the cell and its organelles, cell interactions, and differentiation.

603 Genetics-DNA Lab. 1 hr.
Laboratory to be offered in conjunction with FSC 604 Genetics and DNA Technology stressing techniques and methods required for DNA analysis used in forensic case investigations, in CODIS laboratories and in paternity testing.

604 Genetics and DNA Technology. 3 hrs.
A comprehensive lecture series that covers the genetics and biochemistry of DNA to include the analysis, ethical considerations and quality assurance techniques used to analyze DNA for identification purposes. This course serves as a core course in the forensic science curriculum.
This course will provide an overview of the advanced procedures and techniques used by investigators working with digital evidence. The course covers the American legal system with specific emphasis on expert witnessing by forensic scientists. Both the federal and state systems of justice are addressed, plus topics such as the federal rules of evidence and discovery. Frye and Daubert considerations on admissibility of scientific evidence and statistical issues in paternity testing and mixtures, and presenting evidence. (PR: Admission to Forensic Science program)

A comprehensive course covering bloodstain pattern analysis, bullet trajectory, courtroom testimony, and report writing. This course is taught as a combination of lectures, laboratories, and practical exercises.

An in-depth analysis of both clinical and forensic aspects of toxicology from the viewpoint of the forensic and medical examiner’s toxicology laboratories.

Teaches the basics of how computers and networks function, how they can be involved in crimes as well as a source of evidence.

Course traces the historical development, current status, and future threats of bioterrorism in the U.S. and on a global scale. Issues addressed include microbiology, surveillance, detection and post-event investigation.

Introduction to forensic tools, Windows registry; malware and spyware; virtualization; and hand-held devices. Classes are presented in a lecture format and include microbiology, surveillance, detection and post-event investigation.

This course provides fundamental information to lay the foundation for the Digital Forensics area of emphasis. A range of topics includes laws and regulations relating to stored digital data; quality assurance and ethics in a digital laboratory; basic terminology; computer hardware and various storage media; software, including operating and file systems; and basic concepts of computer security. The course is taught primarily in a lecture format. Class discussions and participation in practical exercises supplement lectures.

Topics covered in this course expand upon material covered in FSC 606 introductory course. Topics include arson, explosives, body excavation, forensic entomology, advanced impression evidence and wound analysis. (PR: FSC 606)

This course addresses various areas of crime scene investigation not, or minimally, addressed in the FSC 606 introductory course. Topics include arson, explosives, body excavation, forensic entomology, advanced impression evidence and wound analysis. (PR: Consent of Instructor)

A 10-week internship in a crime lab or other forensic science-related research laboratory. Application of principles and techniques learned during the course is taught as a combination of lectures, laboratories, and practical exercises.

Establishes foundations and techniques for proper crime scene investigation with or without a victim’s body. Logical approach for collecting evidence and documenting scene and collection process.

Teaches the basics of how computers and networks function, how they can be involved in crimes as well as a source of evidence.

Course traces the historical development, current status, and future threats of bioterrorism in the U.S. and on a global scale. Issues addressed include microbiology, surveillance, detection and post-event investigation.

Introduction to various types of microscopy used in forensics, including scanning electron microscopy, light and fluorescence microscopy and polarizing microscopy.

This course will provide advanced instruction in DNA technologies to assist in the preparation for a career in a forensic DNA laboratory. (PR: FSC 622 or permission of instructor)

This course provides fundamental information to lay the foundation for the Digital Forensics area of emphasis. A range of topics includes laws and regulations relating to stored digital data; quality assurance and ethics in a digital laboratory; basic terminology; computer hardware and various storage media; software, including operating and file systems; and basic concepts of computer security. The course is taught primarily in a lecture format. Class discussions and participation in practical exercises supplement lectures.

Courses of Instruction
The following courses may serve as a minor in some programs.

GEOGRAPHY (GEO)

501 Historical Geography. 3 hrs.
An examination of the spatial aspects of prominent historical patterns and processes, including demographic patterns, economic development, cultural diffusion, state formation, and urbanization.

502 Geography of Appalachia. 3 hrs.
A study of the geography of Appalachia, including landforms, climate, settlement patterns, population, economics, resources, politics, and environmental changes.

503 Geography of Asia. 3 hrs.
An examination of the geography of Asia focusing on contemporary issues, including climate, culture, economics, environmental change, everyday life, international relations, landforms, language, politics, population, religion, and urbanization.

504 Geography of Europe. 3 hrs.
Relationship between human activities and natural environment studied by countries, with attention given to interrelation of countries.

505 Political Geography. 3 hrs.
A systematic and regional survey of world political problems and international relations stressing current geopolitical conflicts.

506 Population Geography. 3 hrs.
This course introduces students to the key spatial features, characteristics, and patterns of population geography, with an emphasis on international population issues and trends.

507 Geography of Sub-Saharan Africa
An exploration of the geography of Sub-Saharan Africa, its land and people, with a focus on contemporary issues that challenge Africans in the twenty-first century.

508 Geography of South and Middle America. 3 hrs.
A study of settlement, transportation, manufacturing, agriculture, geopolitics, and natural resources of South and Middle American countries.

509 Geography of North Africa and the Middle East. 3 hrs.
A geographical study of agriculture, transportation, manufacturing, settlement, geopolitics, and natural resources of the North Africa and Southwest Asia realm.

510 Urban Geography. 3 hrs.
Study of the evolution, morphology and land use, functions, and problems of urban areas, with emphasis on governance, planning, and the social and environmental impacts of urbanization.

511 Health and Medical Geography. 3 hrs.
An examination of contemporary issues and problems in health and medical geography, including the spatial aspects of global health, health care policy, and disease origins, diffusion, and ecology.

512 Geography of Russia. 3 hrs.
Geographical appraisal of cultural, political, and economic aspects of Russia.

514 Principles and Methods of Planning. 3 hrs.
An examination of contemporary planning focusing on principles, methods, techniques, and tools; and the political, legal, and ethical contexts of planning.

515 Urban Land Use Planning. 3 hrs.
Application of principles, methods, and tools of planning; and overview of government policy, code of ethics, and the constitutional basis of contemporary urban land use planning. (PR: GEO 514 or permission of instructor)

516 Environmental Issues in Planning. 3 hrs.
An examination of the role the natural environment plays in urban and rural land use planning with an emphasis on consequences of land use change and applications of planning techniques.

517 Coal Industries Studies: Past & Present. 3 hrs.
An interdisciplinary study for all facets of the coal industry within a historic perspective. Emphasis is placed upon coal industry of West Virginia and the tri-state region.

518 Geography for Teachers. 3 hrs.
A study of the elements of geography education focused on meeting the content standards and objectives for the elementary and secondary school levels.

519 Geography of Gender. 3 hrs.
An examination of contemporary gender issues and problems from a geographic perspective, including the spatial aspects of equality, health, poverty, human rights, and economic and political participation.

520 Geographic Field Research. 3 hrs.
Course focuses on the development of individual research projects based on data collected in the field.
The computer will be used for compilation, reduction, data analysis and modeling from a wide range of geological problems. Existing and student.

Principal of GIS. 4 hrs.
Introduction to Geographic Information Systems (GIS) principles, techniques, and applications for the social and natural sciences with emphasis on foundational geographic principles in a lecture/lab format.

GIS - Vector Analysis. 3 hrs.
GIS vector analysis and spatial statistics, including topics such as map overlay and distance analysis, pattern analysis, spatial joins, network analysis, spatial autocorrelation, geographically weighted regression. (PR: GEO 526 or GEO 530 or permission)

Intermediate GIS - Raster Analysis. 3 hrs.
GIS raster analysis, including local, neighborhood, and zonal operations; terrain analysis; building raster databases; distance modeling, and surface interpolation. (PR: GEO 526 or GEO 529 or permission)

Principles of Remote Sensing and Photogrammetry. 3 hrs.
Scientific study of the earth using images and data captured using satellite- or aircraft-borne sensors, with emphasis on issues of acquisition, photogrammetric interpretation, spatial analysis, and application. (PR: GEO 526 or GEO 529 or GEO 530 or permission)

Enterprise GIS. 3 hrs.
Principles and techniques for planning, implementing, and managing Geographic Information Systems technologies in a firm or agency. (PR: GEO 526 or GEO 529 or GEO 530 or GEO 531 or IS 645 or the equivalent undergraduate courses)

GPS and Mobile Geospatial Technologies. 3 hrs.
An analysis of the design and deployment of Global Navigation Satellite Systems such as GPS (Global Positioning System) and their application to mobile map services. (PR: GEO 526 or GEO 529 or GEO 530 or GEO 531 or IS 645 or the equivalent undergraduate courses)

Spatial Statistics. 3 hrs.
Application of statistical methods to problem solving in geography. Primary focus on descriptive spatial statistics, mapping, analysis of spatial data, spatial sampling, map pattern analysis, and inferential spatial statistics.

Special Topics. 1-4 hrs.
Selected geography subjects to cover unusual geography topics not in the regular course offerings of the department

Independent Study. I-4 hrs.

Economic Geography. 3 hrs.
Topics in economic geography, including industrial location, transportation systems, economic development, international trade relationships, and globalization.

Theoretical and study of the cultural, physical, economic, and political aspects of a world region as defined by instructor expertise and interest.

Geographic Thought and Methods. 3 hrs.
Survey of the history, literature, prominent individuals, major concepts and paradigms in geography. The course emphasizes the integration of methods of geographic inquiry with each student's research focus and writing.

Geographical Research. 1-4 hrs.
Geographical research methods stressed with special attention given to the development of a viable research proposal.

Seminars in Geography. 1-3 hrs.
Selected geography subjects/topics not included in the regular course offerings of the department are considered, using a seminar approach to learning.

Problems in Environmental Geography. 3 hrs.
Present elements of conservation education in the specific areas of soil, water, and human conservation.

Regions of North America
This seminar course examines regional geographies of North America with an emphasis on the research and methods for delineation of regions.

Applied Geographic Information Systems Projects. 3 hrs.
Use of advanced GIS techniques to solve community-service research problems.

Thesis. 1-6 hrs.

Internship in Geography. 3 hrs. I, II. CR/NC.
Professional work experience in applied geography with an approved agency.

GEOLOGY (GLY)

Invertebrate Paleontology. 4 hrs. II. Alternate years (odd numbers)
Taxonomy, morphology, and paleoecology of body and trace fossils representing the major invertebrate phyla; analysis and interpretation of faunal assemblages; theories on evolution and extinction of species.

Petrology. 4 hrs. I. Alternate years (even numbers)
Identification and classification of igneous, sedimentary and metamorphic rocks; their origin and occurrence; their geologic and economic importance. 3 lec-2 lab. (PR: GLY 200, 314 or consent)

Economic Geology. 4 hrs.
Origin, distribution and economics of the metallic and nonmetallic ore deposits. 3 lec-2 lab. Course taught on a demand basis only. (REC: GLY 201, 314, or equivalent)

Sedimentary Petrography. 4 hrs. I., Alternate years (odd numbers)
Megascopic and microscopic identification and a depositional and post-depositional interpretation of the sedimentary rocks. 3 lec-2 lab (PR: GLY 201 and 314 or consent)

Geochemistry. 4 hrs. II., Alternate years (odd numbers)
Introduction to the principles of geochemistry. The application of chemistry to the study of the Earth and to geologic problems. Laboratory work includes analysis of rocks, soils, and waters. 3 lec - 2 lab (PR: GLY 200, CHM 211 & 217 or permission)

Geophysics. 4 hrs.
Development of seismic, gravity, magnetism, electrical and thermal methods to study the structure and dynamics of the earth. 3 lec-2 lab. Course taught on a demand basis only. (PR: GLY 200, PHY 201, MTH 229)

Fossil Fuels. 4 hrs. II. Alternate years (even numbers)
The origin and occurrence of petroleum, coal, and natural gas; the relationships of accumulations to depositional environments and structural history; methods used in exploration, evaluation and recovery. 3 lec-2 lab. (PR: GLY 313, 325 or consent)

Computer Methods in Geology. 4 hrs. II. Alternate years (odd numbers).
The computer will be used for compilation, reduction, data analysis and modeling from a wide range of geological problems. Existing and student-developed programs will be used. 3 lec-2 lab. (PR: 12 hrs. GLY and MTH 130.)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Description</th>
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<tbody>
<tr>
<td>551</td>
<td>Principles of Geomorphology. 4 hrs. I., Alternate years (odd numbers)</td>
<td>4</td>
<td></td>
<td>Identification and analysis of the earth’s surficial features in terms of stratigraphy, structure, processes, tectonics, and time. 3 lec 2 lab.</td>
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<tr>
<td>555</td>
<td>Hydrogeology. 3 hrs. I., Alternate years (odd numbers)</td>
<td>3</td>
<td></td>
<td>The properties of water, the hydrologic cycle with emphasis on surface and groundwater processes. The uses, needs and problems associated with water resources. 3 lec. (PR: GLY 200; CR: GLY 355L for geology majors)</td>
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<tr>
<td>555L</td>
<td>Hydrogeology Laboratory. 1 hr. I, Alternate years (odd numbers)</td>
<td>1</td>
<td></td>
<td>A two hour laboratory of practical hydrogeologic problem solving. (PR: GLY 200; CR: GLY 555, required of majors, non-majors elective)</td>
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<tr>
<td>556</td>
<td>Environmental Geology. 4 hrs. II. Alternate years (even numbers)</td>
<td>4</td>
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<td>Consideration of risks posed by natural geo-hazards and from physical/chemical contamination of geologic media.</td>
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<tr>
<td>657</td>
<td>Health Care Law &amp; Public Policy. 3 hrs.</td>
<td>3</td>
<td></td>
<td>Consideration of legal technical problems faced by geologists and engineers. Major topics include mechanics and classification of soil and rock, and geotechnical aspects of groundwater.</td>
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<tr>
<td>658</td>
<td>Long Term Care. 3 hrs.</td>
<td>3</td>
<td></td>
<td>An examination of the range of health and social services that are needed to compensate for the functional disabilities of people. Review of available services and governmental policies and regulations. (PR: HCA 600)</td>
</tr>
<tr>
<td>656</td>
<td>Management of Medical Technology &amp; Information Systems. 3 hrs.</td>
<td>3</td>
<td>(PR: HCA 600)</td>
<td>Review of the management of medical information systems. (PR: HCA 600)</td>
</tr>
<tr>
<td>657</td>
<td>Engineering Geology. 4 hrs. I. Alternate years (even numbers)</td>
<td>4</td>
<td></td>
<td>Consideration of the place technology, primarily hard technology, plays in the formulation of health care policy and strategies. Special emphasis placed on the management of medical information systems. (PR: HCA 600)</td>
</tr>
<tr>
<td>658</td>
<td>Long Term Care. 3 hrs.</td>
<td>3</td>
<td></td>
<td>An examination of the range of health and social services that are needed to compensate for the functional disabilities of people. Review of available services and governmental policies and regulations. (PR: HCA 600)</td>
</tr>
<tr>
<td>657</td>
<td>Health Care Law &amp; Public Policy. 3 hrs.</td>
<td>3</td>
<td>(PR: HCA 600)</td>
<td>An examination of the legal, regulatory, and policy-making interactions between government, society, and health care organizations and providers. (PR: HCA 600)</td>
</tr>
<tr>
<td>658</td>
<td>Long Term Care. 3 hrs.</td>
<td>3</td>
<td></td>
<td>An examination of the range of health and social services that are needed to compensate for the functional disabilities of people. Review of available services and governmental policies and regulations. (PR: HCA 600)</td>
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**HEALTH CARE ADMINISTRATION (HCA)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>600</td>
<td>The Health Care System. 3 hrs.</td>
<td>3</td>
<td></td>
<td>This course is designed to provide managers with in-depth knowledge of the current health care system, covering the structure and delivery of care, the providers and payers, and the various players in the system. The internal and external forces impacting the system are discussed. Problems in the health care system are explored and evaluated with respect to the issues of access, cost, and effectiveness. (PR: GSM admission or permission of GSM academic advisor)</td>
</tr>
<tr>
<td>610</td>
<td>Health Care Financial Management. 3 hrs. I.</td>
<td>3</td>
<td></td>
<td>Course provides an overview of health care financial management, with special emphasis upon the aspects of financial systems in hospitals that differ from typical financial systems. It includes analysis of capital formation, cash flow management and determination of working capital requirements. (PR: HCA 600)</td>
</tr>
<tr>
<td>615</td>
<td>Health Care Economics. 3 hrs. II.</td>
<td>3</td>
<td></td>
<td>The health care industry is unique. Unlike in other markets, the consumer finds it difficult to evaluate quantity, quality, and pricing. Traditional market forces are modified by government, third-party payers, and professional interests. This course applies economic principles to this unique environment. (PR: HCA 600)</td>
</tr>
<tr>
<td>620</td>
<td>The Ethical Dimension of Health Care Management. 3 hrs. II.</td>
<td>3</td>
<td></td>
<td>Emphasis in this course is on the way managers in health care settings incorporate ethical dimensions into their decision-making. It looks at the wide variety of ethical issues faced by these managers, focusing on those related specifically in the decisions they make about their organization, personnel, and services. Specifically covered are issues regarding the allocation of scarce resources, the type and availability of care for special populations, and conflicts of interest. (PR: HCA 600)</td>
</tr>
<tr>
<td>622</td>
<td>Utilization of Health Services Research. 3 hrs.</td>
<td>3</td>
<td></td>
<td>Course provides an introduction to methods of undertaking research and program evaluation within health services organizations and delivery systems. Recommended for students who will be involved in policy research, social science research, or program impact evaluation within health delivery systems. (PR: HCA 600, MKT 531)</td>
</tr>
<tr>
<td>630</td>
<td>Legal Issues in Health Care Management. 3 hrs. I.</td>
<td>3</td>
<td></td>
<td>This course provides students with a legal framework to analyze health care organizations and their operations. The federal and state legal systems are reviewed and regulatory programs and their requirements discussed. Topics include: tax exemptions, antitrust laws, corporate liability, provider-patient legal issues (contracts and negligence), patient rights, facilities licensure and accreditation, and reimbursement issues. Court cases, as well as governmental agency rulings and findings, are analyzed for their applications to health care management. (PR: HCA 600)</td>
</tr>
<tr>
<td>640</td>
<td>The Health Care Professional. 3 hrs.</td>
<td>3</td>
<td></td>
<td>This course presents an overview of various professional and managerial topics relevant to the health care professional. Each offering of the course focuses on a particular health profession. Emphasis is on defining the profession, understanding its historical development and evolution, examining professional roles, tasks, responsibilities, and accountability in current practice, studying the interaction with other professionals, delineating the parameters of the professional in ethical decision-making, and recognizing and responding to challenges faced in contemporary practice and in planning for the future. (PR: HCA 600)</td>
</tr>
<tr>
<td>650</td>
<td>Comparative Health Systems. 3 hrs.</td>
<td>3</td>
<td></td>
<td>A survey of health care provision systems throughout the world. (PR: HCA 600)</td>
</tr>
<tr>
<td>651</td>
<td>Health Care Operations Management. 3 hrs.</td>
<td>3</td>
<td></td>
<td>An investigation of the use of operations management techniques and methodologies that are useful in the health care industry. (PR: HCA 600)</td>
</tr>
<tr>
<td>652</td>
<td>Health Care Finance. 3 hrs.</td>
<td>3</td>
<td></td>
<td>An examination of the various financial systems present within the American health care systems. Special emphasis placed upon the management of assets, cost control, and budgeting. (PR: HCA 600)</td>
</tr>
<tr>
<td>653</td>
<td>Integrated Health Care Delivery Systems. 3 hrs.</td>
<td>3</td>
<td></td>
<td>An examination of managed care systems within the United States. Emphasis placed on identifying practices that promote quality care at an affordable cost. (PR: HCA 600)</td>
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<tr>
<td>654</td>
<td>Human Resource Management in Health Care. 3 hrs.</td>
<td>3</td>
<td></td>
<td>An investigation of the human resource function found within contemporary health care provision systems. Discussion of future challenges facing the function in this turbulent environment. (PR: HCA 600)</td>
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<tr>
<td>655</td>
<td>Health Care Marketing. 3 hrs. II.</td>
<td>3</td>
<td></td>
<td>An investigation of the role of marketing in today’s health care organizations. Specific topics include market segmentation, consumer behavior, promotion, and environmental analysis. (PR: HCA 600)</td>
</tr>
<tr>
<td>656</td>
<td>Management of Medical Technology &amp; Information Systems. 3 hrs. I.</td>
<td>3</td>
<td></td>
<td>An investigation of the place technology, primarily hard technology, plays in the formulation of health care policy and strategies. Special emphasis placed on the management of medical information systems. (PR: HCA 600)</td>
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<tr>
<td>657</td>
<td>Health Care Law &amp; Public Policy. 3 hrs.</td>
<td>3</td>
<td></td>
<td>An examination of the legal, regulatory, and policy-making interactions between government, society, and health care organizations and providers. (PR: HCA 600)</td>
</tr>
<tr>
<td>658</td>
<td>Long Term Care. 3 hrs.</td>
<td>3</td>
<td></td>
<td>An examination of the range of health and social services that are needed to compensate for the functional disabilities of people. Review of available services and governmental policies and regulations. (PR: HCA 600)</td>
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</tbody>
</table>
Health Care for Rural and Underserved Populations. 3 hrs.
An investigation of how health care is provided to rural Americans. Special attention given to the health care systems that provide medical care to the peoples of Appalachia. (PR: HCA 600)

Health Care Practicum. 1-6 hrs.
Project-oriented experience in health care operations and organizations. Intended for those students with insufficient experience in the field. (PR: Permission of program director and HCA 600)

Field Research in Health Care Management. 3 hrs. S.
In this course, each student selects an in-depth organizational research project on a particular management problem in a health care organization. In this "hands-on" project, the student serves as a consultant to the health care organization, conducting research, analyzing data, and making recommendations for the solution(s) to the management problem. Projects focus on such topics as strategic planning, productivity, quality assurance, risk management, and joint ventures. Field research projects are selected in conjunction with the program coordinator during the semester prior to course enrollment. (PR: Permission of academic advisor)

Special Topics in Health Care Management. 3 hrs.
The course is designed to allow group study of selected topics of current interest in health care management. (PR: Consent of instructor)

Independent Study in Health Care Management. 1-3 hrs.
The course is designed to facilitate individual study of selected topics of interest in health care management. (PR: HCA 600 and permission of program director)

HEALTH PROFESSIONS (HP)

The Role of EHR and PHR. 3 hrs.
Students will be introduced to the main concepts and software applications of Electronic Health Records and Personal Health Records.

Health Quality and Safety. 3 hrs.
To provide students with principles of major health care quality and safety measurement, as well as practical case studies involved in the health care system.

Legal and Regulatory Environment for Health Care and Informatics. 3 hrs.
The course will introduce students to IT governance and health information ethical and legal requirements to improve health care processes, customer response and business competitiveness.

Research Methods and Data. 3 hrs.
The course will introduce a compendium of methods for evaluation of IT-based systems and solutions within health care. Students will acquire knowledge in research processes.

Health Informatics Practicum. 3 hrs.
Provide an experience to prepare students to work effectively in professional positions, and bridge the learning gained in coursework and the world of practice.

Independent Study. 1-4 hrs.
Independent study relates to projects that do not fall specifically within an individual department's curriculum.

HEALTH SCIENCE (HS)

Foundational Clinical Skills in Athletic Training. 3 hrs.
Taping, bracing, spine boarding, airway and oxygen administration, and other advanced emergency and practical care techniques used in athletic training. (PR: program admission; CR: HS 515)

Athletic Training Clinical Experience I. 1 hr.
To develop evaluation and treatment skills of the student under the direction of a BOC-certified Athletic Trainer. Requires completion of 75 clinical hours. (CR: HS 512)

Orthopedic Skills and Procedures. 3 hrs.
Orthopedic skills and procedures used by athletic trainers to assess patients to determine baseline physical and fitness data and the best course of action for injury prevention, treatment, and rehabilitation.

Orthopedic Assessment of the Upper Extremity for the Athletic Trainer. 4 hrs.
Orthopedic evaluation of the neck and upper extremity for the Athletic Trainer.

Orthopedic Assessment of the Lower Extremity for the Athletic Trainer. 4 hrs.
Orthopedic evaluation techniques of the lower extremity for the Athletic Trainer.

Athletic Training Clinical Experience II. 2 hrs.
To continue developing athletic training evaluation and treatment skills under the direction of a BOC-certified Athletic trainer. Requires 150 clinical hours. (PR: HS 515)

Curriculum in Health Education. 3 hrs. I.
A study of principles, objectives, and procedures in curriculum construction for elementary and secondary programs. Historical and philosophical perspectives. Study of existing curricular patterns. (PR: HE 220, HE 221, HE 321 and HE 325)

Health Issues in Physical Education and Athletics. 3 hrs.
A survey of current health issues such as sanitation, contagious diseases, substance abuse, ergogenic aids, and diet/nutrition in PE and athletics. (PR: HE 201, 215, 221, 435.)

Therapeutic Interventions I. 4 hrs.
Students in this course will be instructed in therapeutic modalities used in the initial stages of injury, and therapeutic exercise rehabilitation of the lower extremity and lumbar spine. Special emphasis is given to the decision making processes involved with modality and exercise selection and parameter adjustment based upon patient pathologic responses and desired patient outcomes. (PR: HS 512, 515, 524 and 525)

Therapeutic Interventions II. 4 hrs.
Students in this course will be instructed in electrical stimulation modalities and therapeutic exercise rehabilitation of the upper extremity and cervical spine. Post surgical rehabilitation for both upper and lower extremities and the spine will be incorporated. Special emphasis is given to the decision making processes involved with modality and exercise selection and parameter adjustment based upon patient pathologic responses and desired patient outcomes. (PR: HS 512, 515, 524, 525, 523, 548, and 639)

Pathomechanics. 3 hrs.
An investigation into normal and abnormal human movement patterns in sport, the workplace, and in activities of daily living.

Biomechanical Analysis of Movement. 3 hrs.
The purpose of the course is to provide an advanced study of biomechanical concepts and their application to human movement and sport skills.

Professional Development (Plus title that identifies content). 1-4; 1-4; 1-4; 1-4 hrs.
An in-depth examination of selected Health Education topics through a course, seminar or workshop.
585-588 Independent Study. 1-4; 1-4; 1-4 hrs.
591-592 Workshop in Health Science. 1-3 hrs.
609 Organization and Administration in Athletic Training. 3 hrs.
This course will investigate current trends in administration and organization in the field of athletic training. Focus will be placed on current state/federal practice laws and the financial management of running an athletic training clinic.
610 Advanced Biomechanics. 3 hrs.
An advanced investigation into Newtonian mechanics and their application their uses in human movement analysis.
615 Mechanical Analysis of Activity. 3 hrs.
An investigation into the instrumentation used in biomechanical research and the effective use of it in biomechanical research. (PR: HS 610 Advanced Biomechanics or equivalent, Fundamental Physics and Linear Algebra)
620 Substance Abuse and the Athlete. 3 hrs.
An indepth study of commonly abused substances by athletes as well as current trends in drug testing of athletes. (PR: ESS 621, permission)
623 Medical Aspects in Sports. 3 hrs.
Emphasis on the development of skills in recognition of symptoms of illness, injuries and proper procedures of medical care.
625 Evidence-Based Practice in Therapeutic Electrophysical Agents. 3 hrs.
An in-depth understanding of therapeutic modalities with an emphasis on evidence-based literature.
630 Seminar in Athletic Training. 3 hrs.
A course designed to emphasize the use of scientific literature to enhance the knowledge base of certified athletic trainers.
634 Athletic Training Externship. 3 hrs.
Approved allied health externship supervised by an MD, EMT, PT, PA, or ATC. Requires 225 clinical hours, of which 75+ must be in a non-orthopedic setting. (PR HS 515, 525, 645, and 655)
635 Research Methods in Biomechanics. 3 hrs.
This course is designed to provide an understanding of technology use in biomechanics, effective methods development, and analysis of collected data. (PR: HS 615 or equivalent, Fundamental Physics and Linear Algebra)
639 Examination of General Medical Conditions. 3 hrs.
A study of common general medical conditions and illnesses of physically active individuals and the proper methods of evaluating these complaints.
640 Health Evaluation for the Athletic Trainer. 3 hrs.
An indepth study of common problems and complaints of athletes and the proper method of evaluating those complaints.
645 Athletic Training Clinical Experience II. 2 hrs.
To continue developing athletic training evaluation and treatment skills under the direction of a BOC-certified athletic trainer and/or other qualified allied health professionals. (PR: HS 525)
646 Athletic Training I. 3 hrs.
Training in the diagnosis of injuries in athletics. The student will be expected to participate in diagnostic techniques under the supervision of a trainer.
647 Athletic Training II. 3 hrs.
Professional aspects of trainer-doctor and doctor-athlete relations will be taught and exploration of how to professionally handle injuries and cooperation with physicians.
650 Human Gait. 3 hrs.
An investigation into normal and abnormal gait patterns in activities of daily living. (PR: ESS 564)
655 Athletic Training Clinical Experience IV. 2 hrs.
To continue developing athletic training evaluation and treatment skills under the direction of a BOC-certified athletic trainer and/or other qualified allied health professionals. Requires 150 clinical hours. (CR: HS 645)
660 Internship. 3-6 hrs.
Practical experience in a clinical setting. (PR: ESS 682, 683, 684)
679 Trends in Athletic Training. 3 hrs.
To provide an in-depth analysis of current trends with regard to evidence-based practice, current practice position statements, and current research methods being utilized in athletic training.
681 Thesis. 1-4 hrs.

HISTORY (HST)

504 American Diplomacy, 1789-1900. 3 hrs.
American foreign policy from colonial times to 1900 emphasizing the gradual development of the United States and its achievement of membership in the family of nations.
505 American Diplomacy, 1900-Present. 3 hrs.
American foreign relations in the in the 20th-21st centuries. The gradual retreat from isolation in the period between World Wars I and II and modern American involvement in international commitments will be stressed.
506 Tudor and Stuart England, 1450-1688. 3 hrs.
A history of England under the Tudors and Stuarts, focusing primarily on demographic, social, cultural, and political developments.
509 American Revolution. 3 hrs.
A varied view of the American Revolution and its impact on the American people.
511 U.S. Social and Cultural History. 3 hrs.
A study of the changes and continuities in American Social and Cultural History.
513 History of the Old South, 1492-1860. 3 hrs. Alternate years.
The history of the Old South is a study of the political, economic, social, and cultural conditions in the South that led to the development of the South as a distinct section in the United States.
514 Civil War and Reconstruction. 3 hrs.
The course will include a discussion of the economic, political, social, and cultural differences leading to the Civil War, the war itself, and an analysis of the political and economic importance of reconstruction.
515 History of the New South, 1877 to the Present. 3 hrs.
The History of the New South is a study of the political, economic, social, and cultural changes in the South after Reconstruction that explain conditions in the contemporary South.
521 The Era of the Renaissance and Reformation. 3 hrs.
The impact of the Renaissance upon esthetic, economic, and political developments espeically in the 15th and 16th centuries. The decline of Catholicism and the growth of the Protestant movement, and the influence of the two movements upon each other is stressed.
523 U.S. Latin American Relations. 3 hrs.
An appraisal of political, economic, and cultural relations of the U.S. and Latin America in a historical context with emphasis on the period since 1945.
U.S. Science and Technology. 3 hrs.
A study of the development and impact of science and technology in the U.S.

European History 1814-1914. 3 hrs.
A century of European political, economic, and social history. Its relationship to and influence upon the history of other world areas is noted. The impact of imperialistic rivalry is emphasized.

European History 1914 to Present. 3 hrs.
The impact of World War I upon Europe, the era between two world wars, the search for world peace, World War II and its aftermath are major topics of consideration.

The World at War. 3 hrs.
This course explores the Second World War. It probes the nexus of diplomacy, politics, ideology, military strategy and operation, economics, and technological innovation that generated a truly global "total war."

Intellectual and Cultural History of Modern Europe. 3 hrs.
A survey of the main currents in European thought and culture in the 19th and 20th centuries.

Russia to 1917. 3 hrs.
A survey of Russian history to 1917 which examines Russia before the Russians, Kievan Russia, Appanage Russia, Muscovite Russia and Imperial Russia. Emphasis is on Imperial Russia.

Soviet Russia and Beyond. 3 hrs.
The rise and fall of the Soviet Union, with emphasis on political and economic changes and Soviet foreign policy, and including an examination of the aftermath of the Soviet Union's collapse.

In Our Time-America Since 1945. 3 hrs.
A study of America since World War II focusing mainly on domestic politics, foreign affairs, the civil rights movement, the rise of minorities, and the fragmentation of American society.

The American Experience in Vietnam. 3 hrs.
A study of the origin and escalation of American involvement in Vietnam, the domestic impact of the war within the United States and the collapse of the South Vietnamese government.

Modern Japan. 3 hrs.
Begins with an overview of nineteenth century Japan and stresses the twentieth century rise of Japan to the position of world power.

Modern China. 3 hrs.
This course will provide an overview of Chinese history in the modern era (1600 to the present), including the major political, cultural, social, and intellectual events and trends of this period.

Introduction to Public History. 3 hrs.
Introduction to the basic theories, ideas, and approaches to the application of historical theory or methods to projects presented to non-student publics; local and economic development applications and projects emphasized.

Material Culture and History. 3 hrs.
The course investigates the rich potential of "things" - objects, landscapes, buildings, household utensils, furniture, foods, works of art, clothing, etc. as sources of insight about American history and culture.

Modern China Through Film. 3 hrs.
Through a combination of films, lectures, readings, discussions, and writings, the course will show how China took its unique path to modernization.

West Virginia History. 3 hrs.
An interdisciplinary study of the state, its people and its institutions within the national context.

Women in Social Movements. 3 hrs.
The course explores factors affecting the emergence, growth, structure, impact of social movements as they attempt to transform social relationships and reshape social values.

20th Century U.S. Women's History. 3 hrs.
This course explores the lives and experiences of U.S. women in the 20th century, but always with an eye on power.

Arab-Israeli Conflict. 3 hrs.
This course will examine the historical developments of the modern Arab-Israeli conflict, with emphasis placed on political, socioeconomic, and cultural change and the prospects for peace.

The Rise of the Atlantic World, 1400-1800. 3 hrs.
Expansion of Western Europe from 1400s to Africa, Latin America and other parts of the Atlantic world.

Film and Empire. 3 hrs.
This course explores the nature and importance of empire through the reading of key texts and the study of selected films.

British History in Film. 3 hrs.
This course explores selected aspects of British history through the study of films and key texts.

Special Topics. 1-4 hrs.

Independent Study. 1-4 hrs.

Methodology: Seminar in Historical Methods. 3 hrs.
A research and writing seminar in which students are taught and must exhibit the skills and methodologies of practicing research historians.

Tudor England 1485-1603. 3 hrs.
In this course, students will examine in-depth several selected themes in Tudor history through reading, class discussions, examinations, and a research paper.

Stuart England, 1603-1714. 3 hrs.

American Colonial History. 3 hrs.
A study of the English colonies in America with emphasis on slavery, minorities, and social and economic change.

Problems in European History, 1890-1923. 3 hrs.
An analysis of the politics, diplomacy and military strategy of the period of the First World War. Special emphasis is given to the origin of the war, the war itself, the peace settlement and the Russian Revolution and its aftermath.

Readings in History. 2-3 hrs.
Readings in topics fitted to the need of the individual student. They may deal with any graduate area. This course is ordinarily restricted to off-campus students and is used sparingly.

Seminar in American Historical Biography. 3 hrs.
A reading and research course in which a student investigates biographical topics regarding the men and women whose lives illuminate the American experience. The course will cover a wide range of activities, including the social, political, cultural, and economic development of the United States and the region.

Rebirth of Europe, 1939-Present. 3 hrs.
Background and course of World War II, European politics since 1945, developments in international affairs with emphasis on Cold War, economic and social trends, thought and culture.
Seminar in Reconstruction. 3 hrs.
A reading and research course in which each student investigates a specific issue related to the reunification of the nation after the Civil War.

Problems in American History, 1877-1917. 3 hrs.
A research course in which the student probes a selected problem within the chronological span, 1877-1917.

Problems in American History Since 1917. 3 hrs.
A research course in which a student probes a selected problem within the period since 1917.

Oral/Local History Seminar. 3 hrs.
The course examines the field of oral history. Students will apply oral methodology and other primary sources documentation in researching a local topic.

Seminar in Women's History. 3 hrs.
A reading and research course in which the student investigates selected topics related to the history of women in America or Europe.

Seminar in Archives and Special Collections. 3 hrs.
The Seminar will introduce the student to current practices and procedures used in the creation of archives and manuscript collections through extensive hands-on work, including the physical processing of a manuscript collection. The emphasis will be improvement of the student's historical research skills.

Special Topics. 1-4; 1-4 hrs.
(Permission of Instructor)

Thesis Writing Seminar I. 3 hrs.
A writing seminar in which students present their written work on their M.A. theses to the class members, who will read, analyze and critique each submission.

Thesis Writing Seminar II. 3 hrs.
A continuation of HST 677. Students present their written work on their M.A. theses to the class members, who will read, analyze, and critique each submission.

Problem Report. 1-3 hrs.

Public History Internship. 1-6 hrs.
Internship in an approved setting in Public History, Archives, Museum, Oral History, or Historical Preservation. Interns will be supervised by on-site staff and History Faculty.

Thesis. 1-6 hrs.

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HOME ECONOMICS
(See Family and Consumer Sciences)

HUMANITIES (HUMN)

Technology and the Humanities. 3 hrs.
This course surveys the effects of electronic media on the humanities and how they are taught in the postmodern society. Content will subsume both philosophical/theoretical issues and technical matters.

Staff Development. 1-4 hrs. S/U.
Courses and activities designed to meet specific needs of public school personnel. Credit may be used for certificate renewal and salary upgrading if approved but not in degree programs.

Introduction to Study in Humanities. 3 hrs.
Interdisciplinary core course addresses questions/concepts central to the humanities. Texts from philosophy, history, literature, the arts and the sciences provide insights into selected historical periods. Open to non-degree students.

Literary Theory and Criticism. 3 hrs.
Core course introduces modern critical approaches, concepts and methods of research and scholarship in the broad field of literature. Open to non-degree students.

Historical Studies. 3 hrs.
Core course acquaints students with problems of historical knowledge, changes in the interpretation of history, nature of historical forces, and methods of historical research. Open to non-degree students.

History and Theory of the Arts. 3 hrs.
Core course provides chronological survey of the arts, emphasizing the social, political and/or religious motives that underlie artistic production. Emphasis on theories of modern art. Open to non-degree students.

Expository Writing for Research. 3 hrs.
This core writing course develops proficiency in writing for research. Note: a degree student may demonstrate competency through an alternative assessment to have the requirement waived. Open to non-degree students.

Western Traditions and Contemporary Cultures. 3 hrs.
Using primary materials from different cultural periods, as well as contemporary critical analyses, this course explores epistemological questions that underlie conflicts between cultures. Open to non-degree students.

Selected Topics. 1-9 hrs.

Prerequisite: 24 credit hours, required courses, and comprehensive examination. A pro-seminar required of all Humanities degree students who are beginning the thesis or final project. S/U grade.

Independent Research Symposium. (formerly 702), 3 hrs.
Prerequisite: Humanities 680. A continuation of the pro-seminar for students electing the thesis option. The student will produce a thesis suitable for submission to a committee. S/U grade.

HUMANITIES: ARTS AND SOCIETY (A & S)

Study of Periods and Movements in Western Art and Music. 3 hrs.
The course relates major periods, schools, and movements to the culture of the place and time. May be repeated for a maximum of 6 hours.

Studies in Non-Western Art and Music. 3 hrs.
Studies emphasizing non-Western art or music (e.g., Chinese art; art of the Middle East). May be repeated for a maximum of 6 hours.

Comparative Arts. 3 hrs.
Study of artistic movements and specific stylistic features in art, music and literature. May be repeated for a maximum of 6 hours.

Sunrise Internship. 3 hrs.
A specially designed project under the guidance of specialists at Sunrise Museums (requires special permission from the program director and Sunrise Museums).

Film Art and the Popular Media (formerly Media 560). 3 hrs.
A consideration of films as the successor to earlier popular literatures. Relevant aspects of media history and techniques will be examined.
Selected Topics in Arts and Society. 1-6 hrs.
Selected topics in arts and society. The specific topic will be announced in the schedule of classes. Students may take up to nine hours in selected topics.

Selected Topics in Decorative Arts. 1-6 hrs.
Selected topics in history and practices of decorative arts (e.g., interior design, furniture styles, architecture).

HUMANITIES: CULTURAL STUDIES (CULS)

Studies in Thought and Culture. 3 hrs.
Basic concepts and cultural expressions in words, principally of area or period studies, such as classical Western, medieval Western, modern European and American.

Fundamental Approaches to Communication Criticism. 3 hrs.
Course examines the theoretical approaches to criticism across the broad range of media, with focus on the philosophy behind each and on their various applications.

World Religions. 3 hrs.
Study of several religions as they developed within their individual times and cultures.

Ethics. 3 hrs.
A critical examination of ethical theories as seen in a detailed examination of several works. Theories may include naturalism, intuitionism, non-cognitivism, utilitarianism, and natural law.

History of Ideas. 3 hrs.
A study of the efforts of philosophers to construct general conceptions of the world. Recent approaches in the investigation of ontology and cosmology will be examined.

Selected Topics in Cultural Studies. 1-6 hrs.
Selected topics in an area of cultural studies. The specific topic will be announced in the schedule of classes. Students may take up to nine hours in selected topics.

Seminar in Appalachian Culture. 3 hrs.
Exploration of selected aspects of culture (e.g., art, music, folklore, history, literature), emphasizing regional culture from an interdisciplinary perspective.

Appalachian Studies: Themes and Voices. 3 hrs.
This interdisciplinary course orientates students to the significant issues and research in Appalachian studies. Important political, social, and cultural issues will be considered. Research areas are introduced. (This core course in the Graduate Certificate in Appalachian Studies may be taken by degree students in Humanities.)

Time and Place in Appalachia. 3 hrs.
This interdisciplinary course orientates students to the importance of geography, topography, and geology to the history and development of the Appalachian region. (This core course in the Graduate Certificate in Appalachian Studies may be taken by degree students in Humanities.)

Women, Men, and Cultural Change. 3 hrs.
A study of gender differences from sociological and philosophical perspectives. Topical areas covered include communications, law, literature, popular culture, ethics, and business.

Classical Foundations in Communication Studies. 3 hrs.
Course surveys major contributions to rhetorical theory during the classical period and the development of rhetorical criticism in the centuries since. Philosophers/writers will include Plato, Aristotle, Cicero and Quintilian.

Communication and Social Movements. 3 hrs.
Course examines the role of communication in successful social movements. Contemporary reform movements are analyzed to determine communication strategies, organizational issues, leadership concerns and rhetorical focus.

Media and the Political Process. 3 hrs.
An introduction to the study of political rhetoric, the course relates rhetorical theory to political communication and considers the impact of political communication in government, the electoral process, and society.

HUMANITIES: HISTORICAL STUDIES (HIST)

Ethnic History of West Virginia. 3 hrs.
This course focuses on the contributions that individuals and groups with diverse ethnic backgrounds have made to the economic, social, and cultural history of the state.

Coal Mine Life, Work and Culture in West Virginia. 3 hrs.
This course provides students with a better understanding of the continuing economic, political, environmental and cultural impact which the extraction of coal has had on West Virginia.

Selected Topics in Historical Studies. 1-6 hrs.
Selected topics in history. The specific topic will be announced in the schedule of classes. Students may take up to nine hours in selected topics.

Historic Preservation. 3 hrs.
Course broadens historical awareness and provides practical applications of historical knowledge. It covers the built environment and focuses on the history, processes and legal basis of the historic preservation movement.

Civil War and Reconstruction. 3 hrs.
This course examines the complex causes and lasting effects of the American Civil War. Issues such as slavery, sectionalism, emancipation and Reconstruction will receive attention.

HUMANITIES: LITERARY STUDIES (LITS)

Comparative Approaches to Literature. 3 hrs.
Exploration of literature via literary movements, themes, genres, or relationship to other disciplines. Specific works will be read and discussed as examples of the announced approach.

Creative Writing and Practical Criticism. 3 hrs.
Exploration of the possibilities for communication and expression in contemporary writing with emphasis on comprehension of structure, technique and self-criticism of the writing experience.

Selected Topics in Writing. (formerly Media 522), 3 hrs.
The study of selected topics in writing (e.g., the expository essay, screen-writing, techniques of editing, etc.)

Studies in Mythology/Folklore. 1-6 hrs.
Selected topics in mythology and folklore (e.g., folk drama, folk tale, folk art). May be repeated for a maximum of 6 hours.

Literature for Teachers. 3 hrs.
Study and appreciation of selected works with special reference to the high school curriculum.
An examination of the development, practices and extent of collective bargaining between federal, state, and local governments and their employees.

680  Labor and Employee Relations in Public Employment. 3 hrs.

675  Human Resource Development and Training. 3 hrs.

671  Human Resource Internship. 3 hrs.

A study of the personnel employment and selection processes. Emphasis is placed on the rationale for selection and placement; the procedures

670  Personnel Selection and Testing. 3 hrs.

The development and administration of wage and salary programs, and an analysis of both private and public health, welfare and pension plans.

660  Compensation and Benefits. 3 hrs.

Survey of the applications of psychological principles and of research methodologies to the various human problems in industry, such as personnel

650  Industrial Psychology. 3 hrs.

A study of the organizing structure found in various types of unions, their operating procedures, governing bodies, and the interrelationships

640  Structural Issues in Union Management Relations. 3 hrs.

Discussion of trade union philosophy from early beginnings to the present. Consideration is given to the different philosophical, political, and structural characteristics of American unions and European/Asian unions. (PR: HRM 600 and GSM admission)

636  Literature and Society in Late 18th C. England. 3 hrs.

This course examines biographies, social, political and scientific writings, literary texts and the arts from 1750-1800 to understand English culture and the eighteenth-century world.

625  Human Resource Information Systems and Knowledge Management. 3 hrs.

An examination of the subject matter, techniques, and critical background of the modern Anglo-Irish novel. Students will study representative examples by major novelists from the Republic and Northern Ireland.

620  Modern Irish Novel. 3 hrs.

From the founding of the Abbey Theatre to the present, this course traces the development of Irish drama as art form and cultural artifact.

617  Contemporary World Fiction. 3 hrs.

Contemporary works of shorter fiction from around the world offer opportunities to apply cultural critiques and comparative literary perspectives, while considering the different national and cultural traditions represented.

500  Selected Topics in Literary Studies. 1-6 hrs.

HUMANITIES: STUDIO ART (ARTS)

610  Collective Bargaining, Negotiation and Dispute Resolution. 3 hrs. I.

A comprehensive survey of labor and management relations with special emphasis given to philosophy, structure, and the processes of collective bargaining, negotiations and dispute resolution in both union and nonunion settings. Arbitration, fact finding and mediation are also examined. (PR: HRM 600)

615  Arbitration and Grievance Procedures. 3 hrs.

A study of grievance procedures and arbitration as formalized in labor-management relations, including an analysis of principles and practices of complaint handling, review of concepts and methodology in such grievance handling; review of the role of arbitration as a dispute resolution mechanism, utilization of factfinding and mediation as alternate mechanisms, the preparation and handling of materials in briefs or oral presentations, and the function or role of the arbitrator, impartial chairman, umpire, or similar neutral. (PR: HRM 600)

612  Contemporary World Drama. 3 hrs.

A historical survey of the organized labor movement in the United States and review of legislation affecting the American worker. Attention is given to the industrial relations system of the United States as it relates to those of Western Europe and other nations. (PR: GSM admission or permission of GSM academic advisor)

605  Human Resource Economics. 3 hrs. I.

Economic issues in the employment and compensation of labor. Topics emphasized include labor force composition and growth, structure and functioning of labor markets, unemployment, wage theories, wage levels and structures, the economic influence of unions, income distribution, and human capital models. (PR: ECN 501 plus GSM admission)

606  Development of Labor Relations. 3 hrs. I.

An historical survey of the organized labor movement in the United States and review of legislation affecting the American worker. Attention is given to the industrial relations system of the United States as it relates to those of Western Europe and other nations. (PR: GSM admission or permission of GSM academic advisor)

600  Selected Topics in Literary Studies. 1-6 hrs.

HUMAN RESOURCE MANAGEMENT (HRM)

630  Employment Law. 3 hrs.

A survey and analysis of the labor relations law; examination of the extent to which the law regulates and protects concerted action by employees in the labor market; considerations and analysis of the legal framework within which collective bargaining occurs; and analysis of major aspects of employer-employee law, such as wrongful discharge, discrimination, and safety and health law. (PR: HRM 600)

621  Human Resource Management. 3 hrs.

The use of tests, interviews, and other selection devices. Special attention is given to the criterion comparable worth, special and related issues. (PR: MGT 620 and GSM admission)

620  Personnel Selection and Testing. 3 hrs.

A study of the personnel employment and selection processes. Emphasis is placed on the rationale for selection and placement; the procedures and problems in recruitment and selection; and the use of tests, interviews, and other selection devices. Special attention is given to the criterion problem and legislation and/or governmental regulations affecting selection procedures. (PR: GSM admission)

610  Human Resource Internship. 3 hrs.

Project-oriented experience in Human Resources. Intended for those students with insufficient experience in the field. (PR: Permission of program director and HRM 600)

609  Human Resource Development and Training. 3 hrs.

This course teaches students how to develop management training modules and materials. Students also learn and use advanced techniques in training design and group facilitation. (PR: GSM admission)

608  Labor and Employee Relations in Public Employment. 3 hrs.

An examination of the development, practices and extent of collective bargaining between federal, state, and local governments and their employees. Emphasis is on the public issues related to sovereignty, unit determinations, impact on budgetary and financing processes, representation procedures, unfair practices, scope of bargaining, impasse resolution, and the strike. Some attention is devoted to the legal and ethical problems inherent in these issues. (PR: HRM 600)
INFORMATION SYSTEMS (IS)

697  Special Topics in Industrial Relations. 3 hrs.
Selected topics of current interest in industrial relations. (PR: HRM 600 and permission of program director)

698  Independent Study. 1-4 hrs.
Independent study of a specific nature under the supervision of a qualified faculty member. Hours of credit are determined by the magnitude of the project. (PR: Permission of division head or GSM academic advisor)

580-83  Special Topics. 1-4 hrs.
Occasional offerings of current topics in information systems, providing important supplementary material for participating students.

585-88  Independent Study. 1-4 hrs.
An approved study of special interest concerning information systems that is appropriate for the student's program of study. Carried out under the supervision of a faculty member.

600  Management Information Systems. 3 hrs.
The course examines personal, work group, and enterprise information systems with respect to their value, their components, and the processes of developing them.

603  Programming for Artificial Intelligence. 3 hrs.
An introduction to programming for artificial intelligence applications using Prolog.

605  Systems Analysis Techniques. 3 hrs.
Introduction to information systems from system implementor’s viewpoint; information systems life cycle; techniques of analysis; data dictionaries and data flow diagrams; computer-oriented system description. (PR: Admission to program)

610  Systems Design. 3 hrs.
Physical design of information systems; hardware selection; software design, database considerations; program development; software structuring techniques; cost/ performance trade-offs; system implementation; evaluation and optimization techniques. (PR: IS 605)

615  System Simulation. 3 hrs.
An introduction to discrete-event computer modeling and simulation. Probability distributions, model verification and validation, input data collection, output analysis. Simulation languages and software. (PR: programming capability and quantitative skills)

618  Computer Applications in Engineering and Science I. 3 hrs.
Computational and algorithmic methods in engineering and science, optimization and numerical analytic techniques including gradient and search methods, linear programming, simulation, and data base mechanics. (PR: Admission to the program)

620  Introduction to Operating Systems. 3 hrs.
General principles of managing jobs, processes and storage (real, virtual, auxiliary) in multiprogramming operating systems; interconnection and management of processors in multi-processing and distributed computing system configurations; operating systems comparison. (PR: IS 621 and IS 630, or consent)

621  Information Structures I. 3 hrs.
Representation and manipulation of numeric and non-numeric information, linear lists, strings, multilinked structures; sorting and searching; storage management; data structures in programming languages. Relevant aspects of discrete mathematics. (PR: IS 510 or equivalent)

622  Information Structures II. 3 hrs.
A continuation of IS 621. Tree, graph, and set structures; file structures for secondary storage; aspects of discrete mathematics. (PR: IS 621)

623  Database Management. 3 hrs.
Review of information structures and of relationships among data elements and objects. Relational database theory; design and organization of databases, retrieval structures, and query mechanisms. (PR: IS 622 or consent)

624  Data Warehousing. 3 hrs.
A hands-on introduction to the concepts and techniques of data warehousing and data mining. (PR: IS 623 or instructor’s permission)

625  Software Engineering. 3 hrs.
The process of developing complex software products. Includes the software life cycle, methods and tools for life cycle phases. Application of concepts, methods, and tools in a class project. (PR: IS 510 or permission)

630  Computer Architecture and Assembly Language. 3 hrs.
An introduction to the composition and operation of electronic digital computers and to assembly language programming. (PR: IS 510 or equivalent)

631  Information Security. 3 hrs.
This course provides foundation knowledge in information security, including protecting information assets, risk mitigation strategies, response to security incidents, and designing secure systems. (PR: IS 600, 620, 656, 610)

635  Computer Graphics. 3 hrs.
An introduction to the areas of computer graphics that are necessary to understand, evaluate, and develop graphics applications. (PR: Admission to program)

640  Programming Languages. 3 hrs.
Definition of program environment, program sequence and control, subroutines and other secondary sequences; statement structures, parsing, grammars, etc.; classes of programming languages. (PR: IS 622 or consent)

645  Geographic Information Systems. 3 hrs.
Covers the elements of GIS hardware, software, data and infrastructure needs. Input data issues; data types, sources, error, preprocessing, manipulation and analysis, GIS tools and applications. (PR: Consent)

646  Computer Systems Security. 3 hrs.
This course is designed to provide the technical and analytical skills to implement computer security. Students review how to manage computer security, current security technologies, and incident response. (PR: IS 656 and instructor permission)

647  IT Disaster Planning & Recovery. 3 hrs.
This course provides the skills necessary to manage IT disaster recovery planning. The course focuses on the protection of information. Students will analyze risk, design a plan and explore available technologies. (PR: instructor permission)

650-653  Special Topics. 1-4 hrs.
Occasional offerings of current topics in information systems, providing important supplementary material for participating students.

655  Multimedia and Electronic Information Dissemination. 3 hrs.
Components of multimedia, such as data, voice, pictures, animations, and videos, and their production, manipulation, dissemination processes. Technologies, processes, and services for electronic dissemination. Applications and current trends. (PR: TM 660 or permission)

656  Communication and Network Technologies. 3 hrs.
Different transmission media, digital communications, telecommunications services, types of networks and topologies, network protocols, components, and applications. (PR: IS 622, or TM 660, or permission)

660  Models of Computation. 3 hrs.
Switching algebra and relationship to computers; finite automata; Turing machines; recursion; computability and unsolvability. (PR: IS 622, math maturity)
670 Language Translators and Concepts. 3 hrs.
Formal language concepts, syntactic analysis; types of translators; detailed review of assemblers, interpreters, and compilers, and techniques of their construction. (PR: IS 622)

680 Social Issues in Information Systems. 3 hrs.
Aspects of the interaction of computer systems and society including such topics as system security, respect of privacy, changing job requirements, ergonomics, and moral and ethical considerations. (PR: completion of core, or consent of instructor)

681 Thesis. 1-6 hrs.
Investigate a research problem of theoretical interest and practical value under mentorship of a information systems and computer science faculty. (PR: Permission of instructor)

685-88 Independent Study. 1-4 hrs.
An approved study of special interest concerning information systems that is appropriate for the student’s program of study. Carried out under the supervision of a faculty member.

690 Principles of Artificial Intelligence. 3 hrs.
A survey of the fields of artificial intelligence and expert systems. Students will work together designing and implementing a project. (PR: Permission)

691 Comprehensive Project. 3 hrs.
Develop expertise in an emerging area of information systems through guided study under faculty mentorship. (PR: Permission of instructor)

692 Image Processing for Forensics. 3 hrs.
Image processing focuses on the application of technology to scientific analysis of images. Topics include: measurement techniques; scientific methods of reconstruction and interpretation of images; enhancement of images and video. (PR: Permission of instructor)

695 Expert Systems. 3 hrs.
A review of expert systems techniques and applications. Participants will develop small expert systems using several different personal computer expert systems development programs (shells).

The following courses do not count for credit toward the master’s degree:

500 Computer Systems and Structured Programming I. 3 hrs.
Introduction to programming; survey of computer information systems. (PR: Facility with algebra)

501 Introduction to Programming Languages. 3 hrs.
An introduction to a high level language such as BASIC, C, COBOL, FORTRAN, LOGO and PASCAL. The course assumes a knowledge of at least one other high level language.

510 Computer Systems & Structured Programming II. 3 hrs.
A continuation of IS 500. Topics include algorithm development, manipulation of arrays and an introduction to dynamic data structures. (PR: IS 500 or consent)

551 Computer Programming in Education. 3 hrs.
Programming with educational applications. S-U grade.

565 Computers in Management. 3 hrs.
Basic computer concepts, equipment, and use of applications programs (word processor, spreadsheet, data base).

INSTRUCTIONAL TECHNOLOGY AND LIBRARY SCIENCE (ITL)

Certification endorsement program for those with teaching certification

The role of the school library in the learning process through instruction collaboration, and curriculum support. Study of information literacy, learning styles, and models and assessment of learning outcomes.

502 Library Materials for Adolescents. 3 hrs.
Addresses the selection and promotion of library materials in support of a school curriculum and issues of service, diversity and balance in the school library collection.

515 Reference and Bibliography. 3 hrs.

580-583 Special Topics. 1-4 hrs.

585-588 Independent Study. 1-4 hrs.

622 Cataloging. 3 hrs.
Fundamentals of cataloging and classification, applying AACR2, the Dewey Decimal system, and related aids to the organization of library materials. Implications of new technology for technical services will also be addressed.

625 Library Organization and Administration. 3 hrs.
Principles of administration for elementary and secondary school library media centers, including personnel, facilities, budgets, program planning and evaluation, publicity and public relations, audiovisual equipment and materials, computer hardware and software, and methods and materials for teaching library skills.

631 Technology and the Library. 3 hrs.
An introduction to the function, management, and the issues of computer and non-computer technology in the library. Students learn to use technology as an educational tool in the classroom.

650 Library Practice (Field Work). 3 hrs.
Experiences in the application of techniques of library service, adapted as far as possible to the student’s needs.

INTEGRATED SCIENCE AND TECHNOLOGY (IST)

580-588 Courses on special topics not listed among the current course offerings.

580-588 Independent Study. 1-4 hrs.
(PR: Permission)

JOURNALISM AND MASS COMMUNICATIONS (JMC)

500 Digital Imaging II. 3 hrs.
Advanced methods of taking and editing still and video images for print, broadcast and online publication. (PR: JMC 360)

501 Multi-Media Writing. 3 hrs.
Principles and techniques of cross-media news writing for graduate student reporters and public relations professionals who have no prior experience in news writing.
Courses of Instruction
A close study of advanced Latin grammar and style through composition in Latin. 640 Advanced Prose Composition. 3 hrs.

625 History and Development of the Latin Language. 3 hrs.

585-588 Independent Study. 1-4; 1-4; 1-4; 1-4 hrs. (PR: 6 hours of literature numbered 304 or above or equivalent)

580-583 Special Topics in Latin. 1-4; 1-4; 1-4; 1-4 hrs. I, II. (PR: 6 hours of Latin literature numbered 304 or above or equivalent)

510 Tacitus (Selections From): Annals, Agricola. 3 hrs.

Close readings in Latin of selections from the satires of Horace and Juvenal and the epigrams of Martial. (PR: 6 hours of Latin literature numbered 304 or above or equivalent) 509 Roman Satire: Horace, Martial, Juvenal. 3 hrs.

A close reading in Latin of selections from Livy's history poetry, with special attention to its literary and cultural contexts. (PR: 6 hours of Latin literature numbered 303 or above, or equivalent) 507 Livy's History of Rome. 3 hrs.

Close readings in Latin of selections from the satires of Horace and Juvenal and the epigrams of Martial. (PR: 6 hours of Latin literature numbered 304 or above or equivalent) 505 Readings in Vergil. 3 hrs. (PR: 6 hours of Latin literature numbered 303 or above, or equivalent)

504 Roman Elegy: Propertius and Tibullus. 3 hrs.

503 Roman Comedy. 3 hrs. (PR: 6 hours of Latin literature numbered 304 or above or equivalent)

501 Cicero: Speeches. 3 hrs.

A close reading in Latin of a selection of the political and/or court speeches of Cicero with attention paid to cultural and literary contexts, as well as a modern scholarship. 502 Theory of Mass Communication. 3 hrs. I, II.

Major theoretical concepts in mass communications are studied as a basis for understanding the communication process and the institutional impact of the mass media on the individual and on society. Required of all majors. 602 Mass Communications Research and Methodology. 3 hrs. I, II.

Research techniques applied to problems of mass communication including computer applications, with emphasis on mastery gained by participation in specialized research projects. Required of all majors. 603 Media Management. 3 hrs.

An in-depth examination of the process and practice of media management. 604 Journalism and Mass Communications Law and Ethics. 3 hrs.

The course examines the legal framework of American media from an ethical perspective. It also offers a basic framework of both the law and ethics. (PR: JMC 402 or equivalent)

605 Master's Network. 3 hrs.

This course cultivates brainstorming and critiquing methods and incubates ideas in a collaborative setting. Students will build useful networks, and formulate a creative process tailored to their Master's Initiative Projects. 606 Narrative Reporting. 3 hrs.

In-depth narrative reporting, with emphasis on thorough research, documentation and use of multimedia storytelling tools for publication. 609 Seminar in Public Relations. 3 hrs.

Theoretical and practical aspects of public relations, with special projects and readings to provide skills and insights requisite to success in the profession. Seminar discussions and research projects. 612 History of Mass Communication, Specialized Study. 3 hrs.

Analysis of mass media development in the United States and of current media problems, with emphasis on research. 620 Public Relations in Health Care. 3 hrs.

This JMC course examines public relations practices and techniques used in health care. 630 Seminar in Media Criticism. 3 hrs.

Intensive critical analysis of broadcasting programs and programming procedures from the sociocultural, literary, political and industry points of view. 632 Seminar in Public Broadcasting. 3 hrs.

Examination and evaluation of the unique content, policies, and prospects of public broadcasting. 634 Issues in Radio and Television. 3 hrs.

Problems in the broadcast field on varied subjects which concern the industry. 640 Design Thinking. 3 hrs.

This course engages students in the human-centered design thinking process for the innovative transformation of products and services. 641 Web/Online Strategies for Journalism and Mass Communications. 3 hrs.

A seminar that analyzes Web strategies in news and strategic communications contexts. Students will examine online media trends; content development; and legal and ethical issues. 643 New Media Cultures. 3 hrs.

This course investigates the political, economic, and cultural influences of new communications technologies, both in history and in today's world. 650-651 Special Topics. 1-3 hrs.

650-651 Special Topics. 1-3 hrs.

678 Organizational Storytelling in Public Relations. 3 hrs.

This course examines storytelling within organizations. Emphasis is on the theory behind storytelling and applying theory to practical internal and external scenarios using storytelling as a tactic in organizational PR. 681 Thesis. 1-6 hrs. (PR: Consent of advisor) 682 Master's Initiative. 6 hrs.

Creation of a digital thesis in an applicable professional or scholarly subject through intensive research and creative technique. (PR: JMC 605) 685-688 Independent Study. 1-4; 1-4; 1-4; 1-4 hrs. (PR: Permission of dean)
Courses of Instruction

Marshall University
Leading Nonprofit and Public Sector Organizations. 3 hrs.
Nonprofit and public sector organizations constitute a significant part of every community and this course is designed to examine the major leadership issues they encounter.

School and the Community. 3 hrs.
This course provides students the opportunity to study the concept of community, to examine relationship patterns, to explore the possibilities for combining the resources of the school and community in the interest of school improvement, and to evaluate communication strategies designed to enhance the school-community relationship.

Legal Issues for Nonprofit and Public Sector Organizations. 3 hrs.
This course provides students with an overview of federal and state laws governing nonprofit and public sector organizations, current legal trends, and legal issues affecting CEOs, staff, governing boards.

Community Collaborative Planning and Management. 3 hrs.
Students will be provided with the opportunity to analyze the nature of collaboration among state, local, and federal agencies: business, and community organizations to address an array of complex issues facing non-profit and public agencies. The importance of networking and social entrepreneurship are among other concepts that will be explored.

Adult and Continuing Education Administration. 3 hrs.
This course develops an understanding of the principles, concepts, and processes involved in planning learning experiences for adults within the framework of higher education.

Externship. 1-9 hrs.
This is a field-based course designed for practicing professionals. (PR: Consent)

Legal and Policy Issues. 3 hrs.
This course examines the principal’s role and responsibility related to law and administrative policy.

Internship: Portfolio Assessment. 3 hrs.
This course provides training and assessment experiences for students seeking initial certification as a school principal. The student’s degree portfolio and capstone assessment will be completed. (PR: Completion of degree/certification courses and consent)

Leadership Capstone Course. 3 hrs.
This course represents a culminating experience and an opportunity to demonstrate a broad mastery of learning across the respective program curriculum.

The Attendance Director. 3 hrs.
This course is designed to develop the skills needed for the school attendance director to manage attendance programs, policies, and programs.

Internship: School Social Services. 3 hrs.
This course will require school social service workers and attendance directors to demonstrate proficiency in those administrative and leadership skills required for managing school social services and student attendance programs.

School Law for Support Personnel. 3 hrs.
This course provides the student with a working knowledge of school law and other legal matters as they pertain to the attendance director. The focus of this course is on those laws dealing with mandatory school attendance and juvenile matters. (PR: Admission into the Social Services/Attendance program)

Superintendency. 3 hrs.
This course examines the roles, relationships, behaviors and competencies which characterize school superintendents and their staffs.

Research Design. 3 hrs.
The purpose of this doctoral research methods course is to prepare College of Education and Professional Development doctoral students to design and carry out research at the doctoral level.

Administrative Theory. 3 hrs.
This course analyzes administrative theories and their application to organizational leadership and management.

Ethical Theories. 3 hrs.
The course focuses on the primary ethical theories and the ethical reasoning processes which are representative of each, providing students opportunities to analyze decisions against existing ethical models and reinforce or reform those decisions in light of moral principles.

A Comparative Study of Community Colleges. 3 hrs.
An examination of community colleges in the U.S. and abroad including Canada, Europe, Asia, Africa, and South America. Areas for comparison include governance, finances, curriculum, faculty and students.

Principles of Leadership. 3 hrs.
This course is a study of the characteristics and behaviors of leaders. Emphasis is on the development of understandings and abilities which will work in different situations.

Administration and Organization of Higher Education. 3 hrs.
This course is a survey of higher education with attention to administrative functions at the campus level.

Introduction to Doctoral Studies. 1 hr.
This course is designed to introduce students to the tasks and processes involved in the completion of the doctoral requirements. (PR: Admission to the Doctoral Program)

Public School Finance. 3 hrs.
This course examines concepts in the financing and economics of public education. (PR: Principal or supervisor certificate or consent)

Organizational Analysis. 3 hrs.
This course is an interdisciplinary approach to the study of organizational structure, relationships, and functions focusing on problems and alternatives for solving them.

Higher Education Finance 3 hrs.
This course examines basic concepts in the financing and economics of higher education.

Facility Planning and Management. 3 hrs.
This course teaches the systematic collection and utilization of data in planning for educational facilities. (PR: Principal or supervisor certificate or consent)

Public School Law. 3 hrs.
This course presents the effect of case, statutory, and constitutional law as adjudicated in state and federal courts on public school operation. (PR: Principal or supervisor certificate or consent)

Higher Education Law. 3 hrs.
This course presents the effect of case, statutory, and constitutional law as adjudicated in state and federal courts on higher education operation.

Administration of Community Colleges. 3 hrs.
An analysis of community college governance, structure, functions, and relationship with its respective community and local/state government.

Internship: Administration in Higher Education 3 hrs.
This course provides a field experience in higher education administration. (PR: Consent)
Courses of Instruction

Marshall University

756  Current Issues in Higher Education. 3 hrs.
This course focuses on current and emerging problems of higher education. It deals with both societal and internal factors which impinge on the administration of colleges and universities.

760  Politics of Education. 3 hrs.
This course explores the social process of governance in the public schools including higher education. The milieu of federal, state, and local inputs will be explored.

762  The Politics of Higher Education. 3 hrs.
This course is designed to develop an understanding of the complex internal and external forces and the political processes that affect higher education institutions.

764  Advanced Research I. 3 hrs.
This course will develop knowledge about and skills in using quantitative and qualitative methods in educational research. It will further prepare doctoral candidates for comprehensive exams as well as dissertation research.

765  Advanced Research II in Leadership Studies. 3 hrs.
This is an advanced research course directed toward the preparation of a thesis or dissertation. (PR: Consent)

770  Practicum. 3 hrs.
This is a highly individualized cooperative educational administration experience between the college and another public agency. (PR: Consent)

771-772  School District Leadership 3-6 hrs.
This is an individualized cooperative field experience in district level school administration. (PR: Consent)

775  Seminar. 3 hrs.
This course is a concentrated analysis of current problems in educational administration. (PR: Consent)

776  Computer Analysis in Doctoral Research. 3 hrs.
This course provides the development of skills and competencies in data analysis and management. It is designed for doctoral students in the data analysis stage of dissertation preparation. (PR: Consent)

780  Special Topics. 1-12 hrs.
This course requires study, reading and research in an approved area of education and supervision. (PR: Consent)

787  Contemporary First Amendment Issues in Education. 3 hrs.
This course will examine contemporary first amendment issues as they relate to education in public education and higher education. (PR: Admission to Ed.S or Ed.D. program)

797  Doctoral Research. 1-12 hrs.
Dissertation research is the purpose of this course. (PR: Consent)

LEGAL ENVIRONMENT (LE)

691  Government and Business Relationships. 3 hrs.
Preparing business executives for dealing with problems of the firm in its relationships with government. Applies case analysis to the board categories of antitrust, trade regulation, and agency regulation. (PR: GSM admission)

MANAGEMENT (MGT)

500  Analytical Methods and Techniques. 3 hrs.
Provides competency in some of the basic quantitative skills necessary for analytical work in business administration. Required of all candidates who have had little or no undergraduate background in mathematics.

502  Research Methods. 3 hrs.
This course provides the student with the necessary knowledge to perform business research. Emphasis is placed on applicable research techniques. In addition, several statistical techniques are covered including multiple regression and analysis of variance. (PR: MGT 500)

520  Operations Management. 3 hrs.
An examination of the design and operation of systems for the creation of goods and services in both manufacturing and non-manufacturing organizations. Emphasis is placed upon the application of quantitative and conceptual decision tools for the planning and control of production systems. (PR: MGT 500 or MTH 203 and MGT 218; and MGT 320 or MKT 511; and ECN 253 or ECN 501)

561  Quantitative Methods for Business. 3 hrs.
The use of quantitative methods for managerial decision making. A review of basic calculus and statistics as required in business. Other topics include decision analysis, linear programming, and queuing. (PR: M.B.A. admission)

620  Human Resource Management. 3 hrs.
The study of policies, methods, and techniques utilized in personnel management and human relations. Specific attention is given to problems of recruitment, selection, compensation, motivation, communications, training, service and benefit programs, performance evaluation, safety, discipline, business ethics, and community relations. (PR: GSM admission or permission of GSM academic advisor)

630  Management and Supervisory Skills Development. 3 hrs.
An analysis and application of personal and organizational skills associated with the effective management of both public and private sector organizations. Skills to be developed or refined include time management, decision making, delegation, stress management, oral and written communication, team building, and others. Applied exercises, case studies, simulation, role play, films, and other learning methods are emphasized. (PR: MGT 672)

650-651  Special Topics. 1-3; 1-3 hrs.
(PR: Permission of the division head and full M.B.A. admission or permission of GSM academic advisor)

660  Independent Study. 1-4 hrs.
Independent study of a specific nature under the supervision of a qualified faculty member. Hours of credit are determined by the magnitude of the project. (PR: permission of division head or GSM academic advisor)

671  Business Administration Internship. 3 hrs.
Project-oriented experience in business operations and organizations intended for those students with insufficient experience in the field. (PR: Full admission and permission of program director)

672  Organizational Behavior. 3 hrs.
Basic ideas and concepts for the effective management of an organization. Major topics include motivation, communication and decision-making processes, group dynamics, leadership study, conflict management, work and organizational design, and organization development. Emphasis on organizational behavior and theory. (PR: GSM admission and MKT 511)

673  Problems in Personnel Management. 3 hrs.
Principles and procedures of the personnel system in the firm; selected areas of recruitment and selection; training and development; performance appraisal and evaluation; general communications system, and role of government in manpower administration. (PR: GSM admission)

674  Production/Operations Management. 3 hrs.
A study of operations management methods used in production, manufacturing, services, and other business operations. Includes project management, capacity planning, and transportation problems. (PR: Permission of GSM academic advisor and MGT 500)
Problems in Labor-Management Relations. 3 hrs.
Comprehensive coverage of the development of the field of industrial relations. The impact of organized labor and federal social legislation of management decision. Alternative directions for future developments are studied. (PR: GSM admission)

Organization Theory and Design. 3 hrs.
An analysis of organizational systems and subsystems incorporating traditional, behavioral, and situational approaches to organizational and work unit design. Emphasizes environmental interface and interdependencies as functions of internal systems phenomena (PR: M.B.A. admission)

Entrepreneurship. 3 hrs.
The management of small business emphasizes how they are started and financed, how they produce and market their products and services and how they manage their human resources. (PR: GSM Admission)

Ethics and Global Aspects of Business. 3 hrs.
An examination of the administrator’s social, ethical, and environmental responsibilities to his employees, customers, and the general public and other external factors which management must be cognizant of in modern society. (PR: GSM admission)

Administrative Policy and Strategy. 3 hrs.
Capstone graduate business course for Master of Science students (Human Resource Management and Health Care Administration). Emphasis on policy and strategy issues in a service and/or public setting instead of within a “for-profit” environment. (PR: Permission of GSM assistant director)

Business Policy and Strategy. 3 hrs.
The study of administrative decision making under conditions of uncertainty. Policy construction at top administrative levels with emphasis on strategy and ethics with consideration of major functions of the business organization. (PR: Permission of GSM academic advisor)

MANAGEMENT INFORMATION SYSTEMS (MIS)

Management Information Systems. 3 hrs.
To familiarize students with the characteristics and functions of management information systems, as well as the benefits, limitations, and applications for advanced management information systems. (PR: GSM admission)

Healthcare Communications Technology and Telematics. 3 hrs.
A presentation and analysis of the primary and emerging technological means of communication, collaboration, and information search and retrieval within the healthcare and medical fields.

MANAGEMENT PRACTICE IN NURSE ANESTHESIA (MPNA)

Introduction to Health Care Systems: Health Policy and Delivery. 3 hrs.
This course is designed to provide the student with an overview of the development of health policy and delivery in the United States. Emphasis is placed on the evolution of the structure, financing and function of the current delivery system in America and how these aspects compare to those of other countries. (PR: Admission to DMPNA program)

Financial Management for Health Care Professionals. 3 hrs.
Application of financial management techniques to decision making for health care providers. Focus is on financial statement analysis, working capital management, capital budgeting, evaluating financial risk and return, long-term debt financing, and developing a financial portfolio. (PR: Admission to DMPNA program)

Marketing and Management for Health Care Professionals. 3 hrs.
This course will provide an overview of the basic components of marketing such as the marketing mix and SWOT analysis. It will also enlighten the students regarding the various established basic management theories. (PR: Admission to DMPNA program)

Health Economics. 3 hrs.
Economic analysis applied to the health services sector. Traditional concepts such as efficiency, production and distribution are discussed within the context of the unique health care environment. The micro/macro economic impacts of health insurance, government participation, credentialing and regulation are analyzed. (PR: Admission to DMPNA program)

Evidence-Based Research Methods I. 3 hrs.
To provide the student with the necessary foundation to participate in the design, implementation and evaluation of field and/or clinical research. Upon completion of this course, the student will understand the basics of the scientific method and its application to research design. The role of the Institutional Review Board, including the Belmont Report, will be discussed. Students will be IRB certified by the end of the course. (PR: Admission to DMPNA program)

Evidence-Based Research Methods II. 3 hrs.
To provide the student with an understanding of the appropriateness, benefits and limitations of statistical methods when applied to field and/or clinical research. Upon completion of the course, the student will understand the theory behind parametric and nonparametric statistical techniques. At this point, students will begin to conceptualize their research projects. (PR: Admission to DMPNA program)

Statistical Methods for Field and/or Clinical Research. 3 hrs.
To provide the student with the skills necessary to apply the appropriate statistical techniques for field and/or clinical research. Topics include analysis of variance, correlation and regression, chi-square, t-tests, etc. (PR: Admission to DMPNA program)

Medical/Legal Issues in Health Care. 3 hrs.
Legal aspects of corporate liability, medical malpractice, informed consent, patient rights, privacy, fraud and abuse, plus governmental regulation of health professionals and health facilities. The legislative process, legislative oversight and regulatory agencies are discussed in depth. (PR: Admission to DMPNA program)

Health Care Clinical Practicum. 3 hrs.
Forty eight (48) total hours of course credit for nurse anesthesia clinical practice awarded in 3, 6, or 9 hour increments per semester covering 3 months of time. (PR: Admission to DMPNA program)

Regional Anesthesia 1 hr.
Clinical pharmacology of local anesthetics, anatomy of peripheral nervous system, block administration techniques, drug doses; indications and contraindications for subarachnoid epidural, brachial plexus, ankle and other regional procedures.

Pediatric Anesthesia 1hr.
In-depth study of the specialty of pediatric anesthesia. Subject matter will include: anatomy, physiology, and pathophysiology of the pediatric patient, preoperative evaluation and preparation, airway management, implications of rare pediatric disorders, and management for painful procedures.

Geriatrics 1 hr.
Management decisions related to complex anesthesia situations including but not limited to: unusual co-existing disease, uncommon operative procedure, adverse complications or unexpected events.

Management and Leadership. 5 hrs.
The application of management and leadership principles via clinical job rotation, implementation of advanced management principles to the delivery of nurse anesthesia patient care in various settings. (PR: NUR 741)

In-depth study of the specialty of pediatric anesthesiology. Subject matter will include: anatomy, physiology, and pathophysiology of the pediatric patient, preoperative evaluation and preparation, airway management, implications of rare pediatric disorders, and management for painful procedures.
Informal development of geometry with an exploration of probability and statistics. Recommended for pre-service middle school teachers and for elementary and secondary in-service teachers. May not be used for a 5-Adult (or 5-12) mathematics specialization. May not be used for any degree offered by the Department of Mathematics.

Advanced Principles: Obstetrics for Nurse Anesthetists II. 1 hr.
Course takes an in-depth look at the normal physiological changes associated with pregnancy. It will investigate management issues starting from the basic advancing to the complex. Issues include maternal fetal physiology, fetal monitoring, anesthetic techniques, high-risk pregnancy, emergency management, and fetal and neonatal resuscitation.

Advanced Principles: Clinical Case Study Seminar III. 1 hr.
Management decisions related to complex anesthesia situations including but not limited to: unusual co-existing disease, uncommon operative procedure, adverse complications or unexpected events. Study of the anesthetic care of specialized patient populations requiring advanced planning, decision making and case management proficiency.

Management of Complex Health Care Organizations. 3 hrs.
Emphasis is placed on the management of complex health care institutions representing the organizational spectrum from horizontally integrated group practices to large integrated health centers. (PR: Admission to DMPNA program)

Marketing Goods and Services in a Medical Environment. 3 hrs.
An investigation of the role of marketing in today’s health care environment. Topics include traditional marketing concepts such as segmentation and promotion blended with unique issues like health services marketing, direct to consumer pharmaceutical advertising, mass media ethics, the role of the Internet in health product/services marketing, etc. (PR: Admission to DMPNA program)

Clinical and Administrative Information Systems. 3 hrs.
Foundations of clinical information use starting with information collection, process, problem solving, decision making and recording. Special emphasis on the clinician’s work to support enterprise-wide health care delivery and management information systems. A closer look at technological innovations in the health care field and its impact on health care delivery and costs (PR: Admission to DMPNA program)

Organizational Behavior in Health Care. 3 hrs.
Advanced level theories of effective organization management as they relate to health care organizations will be provided. Topics will include issues related to managing diverse work groups in the American health care system, planning and organizing, decision making models, various leadership styles, and controlling and evaluating management effectiveness. (PR: Admission to DMPNA program)

Moral Management. 3 hrs.
A discussion of the concept of Moral Management. Guidelines for how to make ethical decisions and tough choices are included. Cases relevant to ethical/unethical scenarios will be analyzed. Students will view ethics videos and write a Credo term paper. (PR: Admission to DMPNA program)

Administrative Policy, Strategy and Entrepreneurship. 3 hrs.
The study of administrative decision making under conditions of uncertainty. Policy construction at top administrative levels with emphasis on strategy and ethics with consideration of major functions of an organization. Includes developing a business plan, assessing the environment, evaluating markets, securing financing, marketing services, analyzing and negotiating managed care, and insurance contracts. (PR: Admission to DMPNA program)

Research Project. 1-9 hrs.
This is a 9 credit hour sequence of three (3 credit hours) courses. The student is required to apply the principles of scientific research methods to a field and/or clinical investigation. Students are required to design, implement, evaluate and present (written and oral) a research project approved and guided by the student’s research project committee. Each student will have a research project committee chair and two other designated committee members. (PR: Admission to DMPNA program)

MARKETING (MKT)

Marketing and Management. 3 hrs.
A comprehensive survey of the fundamental principles of management and marketing applicable to all organizations. Provides the student with a basis for analyzing appropriate situations in a management/marketing framework.

Marketing Strategy for Hospitality and Tourism. 3 hrs.
Examination of marketing principles and the unique aspects of services marketing for the purpose of strategic decision making, marketing management and developing market plans in the tourism and hospitality industry.

Special Topics. 1-3, 1-3 hrs.
(Pr: Permission of the division head and full M.B.A. admission)

Independent Study. 1-4 hrs.
Independent study of a specific nature under the supervision of a qualified faculty member. Hours of credit are determined by the magnitude of the project. (PR: MKT 682 and permission of division head and academic advisor)

Advanced Marketing Management. 3 hrs.
An integrated approach to marketing from a managerial point of view: making use of economic, quantitative, and behavioral concepts in analyzing and developing a framework for the decision-making and implementation of the firm’s marketing program. (PR: M.B.A. admission or permission of GSM academic advisor)

Advanced Marketing Research. 3 hrs.
A study of research methods and procedures used in the marketing process; emphasis will be given to the sources of market data, sampling, preparation of questionnaires, collection and interpretation of data. (PR: MKT 682)

Global Marketing. 3 hrs.
This course provides a decision-oriented approach to global marketing; focus will be placed on market entry strategies, segmentations techniques, and marketing mix decisions in a multi-national environment. (PR: GSM advisor’s permission)

Marketing Problems. 3 hrs.
Determination of the marketing mix within the framework of the problem-solving and decision-making process. (PR: MKT 682)

Seminar in Marketing. 3 hrs.
An advanced study of basic concepts of current problems in Marketing. Seminar discussions and research projects. (PR: MKT 682)

Advanced Transportation. 3 hrs.
Current national transportation problems and a review of the various modes including history of the modes. (PR: MKT 682)

Advanced Physical Distribution. 3 hrs.
A study of activities concerned with efficient movement of products from the sources of raw materials supply, through production to the ultimate consumer. These include freight transportation, warehousing, order processing, forecasting, etc. (PR: MKT 682)

MATHEMATICS (MTH)

Structure of Algebra. 3 hrs.
Informal development of modern elementary algebra. Recommended for pre-service middle school teachers and for elementary and secondary in-service teachers. May not be used for a 5-Adult (or 5-12) mathematics specialization. May not be used for any degree offered by the Department of Mathematics.

Structure of Modern Geometry. 3 hrs.
Informal development of geometry with an exploration of probability and statistics. Recommended for pre-service middle school teachers and for elementary and secondary in-service teachers. May not be used for a 5-Adult (or 5-12) mathematics specialization. May not be used for any degree offered by the Department of Mathematics.
Graduate Catalog 2015-2016 Courses of Instruction

512 Regression Analysis. 3 hrs.
Determining regression models; deriving parameter estimates using calculus; detailed coverage of tests of assumptions and remedial procedures (transformations and weighted least-squares); multiple and polynomial regression; tests and corrections for autocorrelation.

513 Experimental Designs. 3 hrs.
Principles of experimentation; analysis of variance; Latin square and related designs; factorial designs, response surface; robustness; nested and split-plot designs.

518 Biostatistics. 3 hrs.
Statistical skills for biological/biomedical research, with emphasis on applications. Experimental design/survey sampling, estimation/hypothesis testing procedures, regression, ANOVA, multiple comparisons. Implementation using statistical software such as SAS, BMDP. May not be used for any degree offered by the Department of Mathematics.

520 Nonparametric Statistics. 3 hrs.
Coverage of a variety of nonparametric or distribution-free methods for practical statistical inference problems in hypothesis testing and estimation, including rank procedures and randomization procedures.

525 Sampling Designs and Estimation. 3 hrs.
Coverage of the theory and applications of a variety of sampling designs; sample size determination; ratio and regression estimates; comparisons among the designs. (PR: MTH 326 or permission)

527 Advanced Calculus I. 3 hrs.
A rigorous study of the real number system, continuity and differentiability of functions of a single variable, integration of functions of a single variable, infinite series.

528 Advanced Calculus II. 3 hrs.
A rigorous development of algebra and topology of Euclidean spaces, differentiability and integrability of functions of several variables. (PR: MTH 527)

545 Probability and Statistics I. 3 hrs.
Probability spaces, conditional probability, and applications. Random variables, distributions, expectations, and moments.

546 Probability and Statistics II. 3 hrs.

548 Modern Geometries. 3 hrs. I.
Finite geometries, basic background material for the modern development of Euclidean Geometry, other geometries.

549 Projective Geometry. 3 hrs.
Projective geometry using both synthetic and algebraic methods. (PR: MTH 300)

550 Modern Algebra I. 3 hrs.
Structure of the abstract mathematical systems; fields, rings groups, with illustrations and applications from number theory.

552 Modern Algebra II. 3 hrs.
Continuation of MTH 550. (PR: MTH 550)

564 Statistical Computing. 3 hrs.
Introduction to the commonly used statistical computing techniques, procedures and methods, with extensive use of R language and environment, and SAS for statistical computing and graphics. (CR/PR: MTH 545 or MTH 546)

570 Applied Survival Analysis. 3 hrs.
Survival and hazard functions, parametric and non-parametric methods, models and inferences for survival data, proportional hazard, and regression diagnosis. (PR: MTH 545, or permission)

580-583 Special Topics in Mathematics. 1-4; 1-4; 1-4 hrs.
Courses on special topics not listed among the current course offerings. (PR: Permission)

585-588 Independent Study. 1-4; 1-4; 1-4 hrs.
(Pr: Permission)

589 Graduate Mathematics Seminar. 1 hr. CR/NC.
A seminar on topics relevant to graduate students in mathematics, including college-level teaching, conducting research, professional ethics, and mathematics careers. This course does not satisfy any degree requirements.

610 Advanced Modern Algebra. 3 hrs.
Advanced topics in algebraic structures, applications, and related topics beyond a first-year course in modern algebra. (PR: MTH 552)

613 Mathematical Modeling. 3 hrs.
Students will work in teams to construct mathematical models of various real-world situations. Problems to be modeled will be drawn from diverse areas of application and will use a wide range of undergraduate mathematics.

615 Partial Differential Equations. 3 hrs.
Elementary partial differential equations. Heat equation, Laplace’s equation, separation of variables, Fourier series, vibrating strings, eigenvalue problems, finite differences, Bessel functions, Legendre polynomials.

616 Advanced Differential Equations. 3 hrs.
Differential equations are studied qualitatively. Topics include the existence and uniqueness of solutions and the behavior of solutions including the stability of nonlinear systems, periodic solutions, and approximation using perturbation methods.

630 Topology I. 3 hrs.
First course in topic of topology. Basics of point-set topology; metric and topological spaces, continuity, connectedness, compactness, products, quotients. Surfaces and simplicial complexes, Euler characteristics.

631 Topology II. 3 hrs.
First course in algebraic topology. Homotopy, fundamental group, simplicial homology. (PR: MTH 630 and MTH 550)

632 Advanced Topology. 3 hrs.
Advanced topics in topology, applications, and related topics beyond a first year course in topology. (PR: MTH 631)

635 Graph Theory and Combinatorics. 3 hrs.
The course is designed to introduce students in mathematical sciences to the theorems, techniques and applications of graph theory and combinatorics. (PR: Permission)

640 Complex Variables I. 3 hrs.
Complex numbers, analytic functions, properties of elementary functions, integrals, series, residues and poles, conformal mapping.

641 Complex Variables II. 3 hrs.
Continuation of MTH 640. (PR: MTH 640)

642 Numerical Linear Algebra. 3 hrs.

643 Numerical Analysis. 3 hrs.
The theory and technique of numerical computation involving the difference calculus, the summation calculus, interpolation methods, solutions of equations, and methods of solution of ordinary differential equations.
Covers the causes and mechanisms of aqueous corrosion, electrochemistry and thermodynamics of corrosion. Materials selection, design for minimization of corrosion, and corrosion protection. (PR: Graduate status)

**Covers the causes and mechanisms of aqueous corrosion, electrochemistry and thermodynamics of corrosion. Materials selection, design for minimization of corrosion, and corrosion protection. (PR: Graduate status)**

**Covers fundamentals of nanomaterial and nanotechnology. Unique properties of nanomaterials. Synthesis methods of various nanomaterials. Nano and microfabrication techniques. Applications of nanomaterials in various technologies, environmental science, biotechnology and biomedicine. (PR: Graduate status)**

**Vehicle Dynamics. 3 hrs.**
Deals with ground vehicle stability and control. Contribution of tire lateral force, stiffness, and aligning torque to stability. Effects of suspension geometry, chassis stiffness, and roll stiffness. (PR: Graduate status)

**Introduction to Computational Fluid Dynamics. 3 hrs.**
This course covers governing equations, ordinary differential equations (ODEs), numerical integration; finite difference and finite volume methods for parabolic, elliptic, hyperbolic partial differential equations (PDEs), numerical linear algebra; turbulence.

**Renewable Energy. 3 hrs.**
Basic principles and technical details of various renewable energy technologies for the sustainable future. Process design, energy analysis, engineering economics and environmental assessment of renewable energy systems. (PR: Graduate status)

**Nano-Material. 3 hrs.**
Covers fundamentals of nanomaterial and nanotechnology. Unique properties of nanomaterials. Synthesis methods of various nanomaterials. Nano and microfabrication techniques. Applications of nanomaterials in various technologies, environmental science, biotechnology and biomedicine. (PR: Graduate status)

**Automation and Control. 3 hrs.**
This course provides an overview of the principles of automation and concept of system control, including instrumentation, control, human interface, and communication subsystems. (PR: Graduate status)

**Advanced Engineering Analysis I. 3 hrs.**
The core of this course is to learn advanced analytical and computational methods to solve multi-dimensional conduction, convection-advection, mechanical vibration, and elasticity equations. (PR: Knowledge of ordinary differential equations, linear algebra and multivariable calculus is assumed.)

**Advanced Engineering Analysis II.**
This is the second course in a two-course sequence to learn advanced analytical and computational methods to solve multidimensional diffusion, heat, biharmonic, and elasticity equations. (PR: ME 601)

**Research Methods. 3 hrs.**
Research methods in engineering conducting critical reviews of research literature, preparing pre-proposal, and initiating background research on a thesis topic. Student is expected to submit a thesis pre-proposal. (PR: graduate status).

**Additive Manufacturing. 3 hrs.**
Additive manufacturing (AM), rapid prototyping, rapid tooling, joining processes, direct digital manufacturing to form 30 parts with applications ranging from prototyping to production in aerospace, defense, and biomedical industries. (PR: Graduate status)

**Corrosion Engineering. 3 hrs.**
Covers the causes and mechanisms of aqueous corrosion, electrochemistry and thermodynamics of corrosion. Materials selection, design for minimization of corrosion, and corrosion protection. Case studies are discussed. (PR: Graduate status)

**Courses of Instruction**

Marshall University
A study on stress and its impact of safety and health in mining. Activities will be scheduled to enable the student to apply, in a work setting, some

637  Stress and its Impact on Safety and Health in Mining. 3 hrs.

Threshold limit values and material safety data sheets. Hands-on experience in collecting industrial hygiene samples and subsequent laboratory

636  Threshold Limit Values: Sampling and Analytical Techniques. 3 hrs.

Gas, vapor and particulate sampling - industrial ventilation for control of health hazards. Use of respiratory protective equipment to control health

635  Sampling, Industrial Ventilation, and Respiratory Protective Equipment for Mining and Milling Operations. 3 hrs.

A study of the principles, techniques and procedures of investigations of mine accidents including attendance in court and report writing.

631  Mine Accident Investigation and Reporting. 3 hrs.

A study of the interactions of man, machines and the environment. The role of these interactions in causing or in preventing accidents.

629  Problem Analysis and Consultation in Mine Safety and Health. 3 hrs.

628  Man, Machines and the Environment in the Mining Industry. 3 hrs.

A study of the operation of hoisting haulage equipment used in the mining industry.

624  Mine Haulage and Transportation. 3 hrs.

A study of how to recognize accident potential throughout the mining industry.

514  Hazard Control in Mining. 3 hrs.

This course covers the principles, functions and philosophies of mine management.

513  Mine Safety and Health Management. 3 hrs.

This course prepares the participant for the effective analysis of safety programs and provides some specific applications in the mining environment.

512  Mine Safety Program Analysis. 3 hrs.

A survey of the legislation that has affected safety and health in mining with special emphasis of the Federal Mine Safety and Health Act of 1977.

511  Mine Safety and Health Legislation. 3 hrs.

A study of the operation of hoisting haulage equipment used in the mining industry.

625  Tribology. 3 hrs.

Detailed coverage of the mechanisms of friction, material wear, and major lubrication techniques - liquids, solids, and gases - with traditional and modern applications. Coverage of micro/nanotribology, MEMS, and magnetic surface storage applications. (PR: Graduate status)

628  Applied Biomaterials. 3 hrs.

Covers the knowledge needed to select and design biomaterials used in medical devices with emphasis on metallic, ceramic, polymeric, and composite biomaterials. Explains the difference between materials science and materials engineering. (PR: Graduate status)

630  Manufacturing Systems. 3 hrs.

This course covers tool design and metal cutting theory, CAD/CAM, CIM, CNC m/c, CNC programming, fixture design, metal forming, gear manufacturing, non-traditional machining, PLC, flexible manufacturing, robotics, rapid prototyping/toothing. (PR: Graduate status)

635  Mining. 3 hrs.

Modeling of vibratory motion of advanced mechanical and structural systems, including continuous systems, nonlinear systems and systems with random excitations. (PR: Graduate status)

640  System Modeling. 3 hrs.

Overview of modeling and simulation of complex systems with mechanical, hydraulic, thermal and/or electrical elements. Frequency response analysis, stability, and numerical analysis of system modeling. (PR: Graduate status)

645  Nonlinear Dynamics. 3 hrs.

Nonlinear dynamical systems, including concepts of chaos, fractal and classic dynamics equations, one dimension systems, two dimension systems, phase plane, limit cycle, bifurcation, Lorenz equation, and fractals.

649  Sustainable Energy Management. 3 hrs.

Sustainable energy management; provides an overview of mechanical and control systems within buildings with sub-systems which possess a visible energy signature in terms of energy usage, inefficiency, and impact. (PR: Graduate status)

650-653  Special Topics. 1-4 hrs.

Subject matter to be selected from topics of current interest. (PR: Graduate status)
Problem Report. 3 hrs.
Thesis. 1-6 hrs.
Individual research on a specific problem of concern to the student and of significance to mine safety.
Seminar. 1-4 hrs.

MUSIC (MUS)

Graduate Music History Review 1. 2 hrs.
Review of the history of Western music from 1750 to the present for entering graduate students who are deficient or wish to review their content knowledge.

Graduate Music History Review 2. 2 hrs.
Review of the history of Western music from 1750 to the present for entering graduate students who are deficient or wish to review their content knowledge.

Choral Union. 1 hr.
Large choral ensemble available to university and regional singers without audition.

University Chorus. 1 hr.
A mixed chorus of 60-90 singers open to all university students without audition. Public performances of a variety of music are given each semester. Three rehearsals per week.

Music Technology Review. 3 hrs.
Review of music software and DAW hardware for classroom instruction, assisted practice, notation, MIDI and recording.

Opera Workshop. 1 hr.
Preparation and performance of opera scenes and full operas. Membership open to students as singers, pianists, and technical personnel. Roles assigned by audition. Two rehearsals per week plus private coaching. (PR: Audition with Director)

Chamber Choir. 1 hr.
Advanced, auditioned choral ensemble open to all university students. Repertoire performed locally and on tour includes great chamber literature of the past five centuries. Three rehearsals per week. (PR: Audition with Director)

Marshall University Orchestra. 1 hr.
The Marshall Orchestra is open to all university students, faculty, and interested musicians in the community with permission of the instructor. Concerts are presented each semester. (PR: Audition with Director)

Introduction to World Music. 3 hrs.
This course will survey native musics of Africa, Asia, and the Americas as an aspect of culture. No formal background in music is required, as students will learn techniques for listening and articulating responses to music.

Orff-Schulwerk. 3 hrs.
Experiences in Orff-Schulwerk include use of poetry, rhymes, games, songs, and dances in teaching music. Singing, movement, and instrument playing and the spoken word are the primary learning tools. (PR: Graduate standing and one course in elementary music methods)

American Music and Its Influences. 3 hrs.
Musical and cultural influences of European, West Africa, Caribbean, and Native American societies on United States music from 1650-1920. Specific application to concert music. (PR: Graduate standing or permission of instructor)

Electronic Music Composition. 2 hrs.
The theory and practice of electronic media used for musical composition. History, Synthesis, and Digital Audio processing will be emphasized. (PR: Graduate standing in music)

Graduate Theory Review. 3 hrs.
Review of undergraduate music theory for entering graduate students who are deficient or wish to review music theory skills.

Piano Ensemble. 1 hr.
Study and perform a wide variety of musical styles for multiple pianists on 1-5 pianos. (PR: Instructor Audition)

Guitar Literature. 2 hrs.
A survey of the literature for guitar from c. 1400 to the twentieth century; to expose the guitarist to many of the important composers and their works.

Guitar Pedagogy. 2 hrs.
A survey of guitar pedagogy materials, and a practicum in teaching classical guitar.

Cello Ensemble. 1 hr.
Cello students will rehearse and perform works from the major literature for cello ensemble.

Guitar Ensemble. 1 hr.
An ensemble for guitar majors and qualified guitar elective students: focus on sight reading skills, ensemble accuracy and position playing.

Flute Ensemble. 1 hr.
Performs a wide variety of musical styles from full choir to quartets, trios, etc. (PR: Audition)

String Ensemble. 1 hr.
Chamber ensemble experience for string players.

Woodwind Ensemble. 1 hr.
Chamber ensemble experience for woodwind players.

Percussion Ensemble. 1 hr.
An ensemble dedicated to performing a wide variety of musical styles on instruments in the percussion family.

Brass Ensemble. 1 hr.
Chamber ensemble experience for brass players.

Jazz Ensemble. 1 hr.
Study and performance of traditional and progressive jazz repertoire in a big band ensemble. Open to all university students by audition. (PR: Audition with Director)

Jazz Improvisation Ensemble. 1 hr.
Ensemble improvisation from duet to tentet. Emphasis on music sight reading, recognition and application of chord/scale relationships in a performance setting. Ensemble playing skills. May be repeated for credit.

Symphonic Band. 1 hr.
The Marshall University Symphonic Band rehearses twice a week and presents two concerts each semester. Symphonic Band performs a varied repertoire of music from wind band staples to contemporary works.

Marching Band. 1 hr.
The Marching Thunder rehearses three times a week and performs a varied selection of music at every home game as well as at exhibitions around the country.

Wind Symphony. 1 hr.
A select, auditioned group of wind and percussion players who study and perform original and transcribed works for wind orchestra and works for smaller mixed chamber ensembles (PR: Audition)
Advanced study in literature, conducting techniques, score preparation and analysis, interpretation, rehearsal planning and execution for the choral

629  Choral Conducting and Interpretation. 3 hrs.

622 Styles and Analysis. 3 hrs.
Introduction to bibliographic sources, historical, analytical and empirical research methods applied to music and music education.

621 Music Research Methods. 3 hrs.

620b  Choral Techniques and Materials. 3 hrs.
Advanced study of the methods and materials of instrumental music instruction at all levels

620a  Instrumental Techniques and Materials. 3 hrs.

619b  Seminar in Piano Pedagogy. 2 hrs.
A survey of instructional and performance literature for solo violin, viola, cello, bass, guitar, and string ensembles.

619a  Seminar in Vocal Pedagogy. 2 hrs.
A study of the techniques of singing and their application to private and class instruction. Emphasis placed upon diagnosis of problems, and teaching under supervision.

618b  Administration of Choral Music. 3 hrs.
A study of the organization of choral music programs including; recruitment, auditions, scheduling, rehearsal arrangement, programming, touring, and budget.

618a  Administration of Instrumental Music. 3 hrs.
The planning and operation of the instrumental program and the details of programming the work in a school system.

618  Projects and Problems in Music. 3 hrs.
Detailed investigation of problems and/or projects in the student’s area of specialization.

617 Seminar in Music Education. 3 hrs.

616 Music Curriculum and Administration. 3 hrs.
Study of the organization of the school music program including budget, scheduling, organization and curriculum design.

615 Advanced Techniques for Marching Band. 3 hrs.
Advanced methods, materials, and techniques for training and administering a marching band program, including show planning, drill writing, arranging, and administration.

614 Seminar in Teaching Music Appreciation. 2 hrs.
Methods and materials for teaching music appreciation. Required of all graduate assistants teaching MUS 142, Music Appreciation. May be repeated for credit.

613 Advanced Techniques for Conductor. 3 hrs.
Advanced methods, materials, and techniques for training and administering a choral music program, including show planning, drill writing, arranging, and administration.

612 Projects and Problems in Music. 3 hrs.
Advanced study in literature, conducting techniques, score preparation and analysis, interpretation, rehearsal planning and execution for the choral ensemble. May be repeated for credit three times.
630  Instrumental Conducting and Interpretation. 3 hrs.
Advanced study in conducting techniques, score preparation and analysis, interpretation, rehearsal planning and instrumental ensemble literature.
May be repeated for credit three times.

640a  Music Theory. 3 hrs.
Analytical and writing techniques of 19th and 20th Century music.

640b  Music Theory. 3 hrs.
Continuation of Music 640a.

641  Advanced Counterpoint. 3 hrs.
An intensive study of contrapuntal techniques, styles, and forms through composition and analysis.

642  Procedures and Techniques for Elementary Music (Grades K-6). 3 hrs.
Fundamentals of Music; experience in keyboard, guitar, recorder and autoharp. Survey of materials and methodology to aid in establishing program in school music. Nonmajors only.

645  Original Composition. 2 hrs.

646  Advanced Choral Arranging. 3 hrs.
Techniques of choral composition and arranging with emphasis on the mixed choir. Arrangements and original works sung by choral groups and conducted by students.

647  Advanced Band Arranging. 3 hrs.
A study of the scoring for modern concert and marching bands, the transcription of works for other media as well as original works; analysis of band literature, harmonic and formal.

648  Advanced Orchestration. 3 hrs.
Scoring compositions from other media for modern orchestras of various sizes.

649  Advanced Jazz Arranging. 3 hrs.
Advanced study of jazz arranging for combo through big band instrumentation.

650  Music of the Middle Ages. 3 hrs.
The historical and stylistic study of music of the Middle Ages, ca. 600 to ca. 1400.

651  Music of the Renaissance. 3 hrs.
The historical and stylistic study of music of the Renaissance, ca. 1400 to ca. 1600.

652  Music of the Baroque Era. 3 hrs.
The historical and stylistic study of music of the Baroque Era, ca. 1600 to ca. 1750.

653  Music of the Classical Era. 3 hrs.
The historical and stylistic study of music of the Classical Era, ca. 1720 to ca. 1820.

654  Music of the Romantic Era. 3 hrs.
The historical and stylistic study of music of the Romantic Era, ca. 1800 to ca. 1900.

655  Music ca. 1900 to the Present. 3 hrs.
The historical and stylistic study of music ca. 1900 to the present.

656  Seminar in Performance Practice. 2 hrs.
Students will prepare and perform music from a selected style period using editorial methods and research as appropriate to the chosen period. May be repeated for credit.

Methods and materials that engage children in musical learning experiences from an infancy through grade 5, including curriculum development, designing age-appropriate activities; study of current research in music learning.

675  Music in Early Childhood (Birth to Age 5). 3 hrs.
Methods and materials for music learning in earliest childhood to include developmentally appropriate curriculum and activities, ways that babies and toddlers learn, and current trends in early childhood music education.

681  Thesis. 1-6 hrs.

Applied Music

680  Saxophone. 1-2 hrs.
682  Flute. 1-2 hrs.
683  Oboe. 1-2 hrs.
684  Clarinet. 1-2 hrs.
685  Bassoon. 1-2 hrs.
686  French Horn. 1-2 hrs.
687  Trumpet. 1-2 hrs.
688  Trombone. 1-2 hrs.
689  Euphonium. 1-2 hrs.
690  Tuba. 1-2 hrs.
691  Violin. 1-2 hrs.
692  Viola. 1-2 hrs.
693  Cello. 1-2 hrs.
694  String Bass. 1-2 hrs.
695  Piano. 1-2 hrs.
696  Voice. 1-2 hrs.
697  Organ. 1-2 hrs.
698  Percussion. 1-2 hrs.
699  Guitar. 1-2 hrs.

NURSING (NUR)
Graduate nursing courses are open only to those students admitted to the nursing program.

580-584  Special Topics in Nursing. 1-4 hrs.
Program of study not normally covered in other courses. Topics vary from semester to semester. (PR: Permission of instructor)

585-588  Independent Study in Nursing. 1-4 hrs.
Courses taught by tutorials; directed independent readings or research; problem reports, and other activities designed to fill needs of individual students.

591-594  Nursing Workshop. 1-4 hrs.
Practical, participatory courses for advanced students. Experience in new techniques and application of new knowledge.
741I  Health Care Practicum. 5 hrs.
Continuation of NUR 741E. (PR: NUR 741E )

741G  Health Care Practicum. 5 hrs.
Continuation of NUR 741C. (PR: NUR 741C )

741E  Health Care Practicum. 5 hrs.
Continuation of MPNA 741A. (PR: NUR 741B )

741C  Health Care Practicum. 5 hrs.
Continuation of NUR 741. (PR: NUR 741)

741B  Nurse Anesthesia Professional Practice. 3 hrs.
Continuation of NUR 741. (PR: NUR 741)

741A  Health Care Practicum. 5 hrs.
The Clinical Practicum prepares the student for the full scope of current practice and requires a minimum of 550 clinical cases including a variety of procedures, techniques, and specialty practice. (PR: NUR 741)

741E  Health Care Practicum. 5 hrs.
Continuation of NUR 741C. (PR: NUR 741C)

741G  Health Care Practicum. 5 hrs.
Continuation of NUR 741E. (PR: NUR 741E)

741I  Health Care Practicum. 5 hrs.
Continuation of NUR 741G. (PR: NUR 741G)
This course will encompass the core pharmacology concepts as well as drugs used in the treatment of pulmonary, gastrointestinal, endocrine, renal.

PHARMACOLOGY (PMC)

610 Introduction to Pharmacology. 3 hrs., I.
An in-depth presentation of the history and introductory principles of pharmacology. Designed to acquaint students with pharmacology as a scientific discipline and provide the basis for more advanced courses. (PR: Consent of instructor)

621 Medical Pharmacology I. 6 hrs.
This course will encompass the core pharmacology concepts as well as drugs used in the treatment of infectious diseases, cancer, hematological matters, nervous system agents and cardiovascular drugs. (PR: BMS 600 or equivalent; REC: PHS 629 desirable)

622 Medical Pharmacology II. 2 hrs.
This course will encompass the core pharmacology concepts as well as drugs used in the treatment of pulmonary, gastrointestinal, endocrine, renal and musculoskeletal diseases, drugs specific for men’s and women’s health, dermatological agents and toxicology. (PR: BMS 600 or equivalent; REC: PHS 629 desirable)
625  
**Drug Metabolism. 3 hrs., I.**
Topics will include a discussion of the metabolizing enzymes, enzyme induction and inhibition, toxic metabolites, prodrugs, metabolic disorders and analytical methods for studying drug metabolism. (PR: consent of instructor)

630  
**Chemical Aspects of Pharmacology. 3 hrs., I.**
An introduction to the chemical principles of pharmacology. The chemical classification, acid-base chemistry and stereochemical properties of drugs and the reactivity of drugs with biological systems will be discussed. (PR: organic chemistry, consent of instructor)

635  
**Neuropharmacology. 3 hrs., I.**
A study of the actions of drugs on the nervous system.

640  
**Behavioral Pharmacology. 3 hrs., I.**
Behavioral methods for assaying drug action. (PR: consent of instructor)

643  
**Introductory Cardiopulmonary Pharmacology. 3 hrs.**
A general overview of the principles of pharmacology and the mechanisms and effects of cardiovascular and respiratory drugs. (PR: PHS 629 or BSC 522, consent of instructor)

645  
Advanced Cardiopulmonary Pharmacology. 3 hrs., I.
An in-depth presentation of pharmacological aspects of cardiovascular and pulmonary systems. Current knowledge, principles and methods used in cardiopulmonary research will be discussed. (PR: PMC 620 or PMC 643; consent of instructor)

650  
**General Toxicology. 3 hrs., I.**
An in depth presentation of the general principles and methods of toxicology. Mechanism, distribution and organ system responses to toxins and methods of toxicological evaluation will be discussed. (PR: consent of instructor; PMC 610 or PMC 621 highly recommended)

655  
**Toxicology Reviews. 1 hr.**
This course will provide a presentation and discussion of current literature in the area of toxicology. Fundamental principles and new discoveries will be emphasized.

676-677  
**Special Topics. 1-4 hrs.**
Material on special areas of research of topics which are not routinely covered in existing courses.

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**PHARMACY (PHAR)**

511  
**Clinical Immunology. 1 hr.**
Skill development in vaccine administration, patient counseling, and maintaining appropriate record management. The student will acquire knowledge regarding individual vaccines and the vaccination process. This knowledge will be reinforced through laboratory and simulation activities. Skill development will culminate with the student providing immunizations in patient settings. (PR: P1 standing)

521  
**Integrated Laboratory I. 2 hrs.**
This is a laboratory course to provide hands-on experience that complements didactic presentations in PHAR 531 and PHAR 532. (PR: PHAR 531; CR: PHAR 532)

531  
**Biopharmaceutics I. 3 hrs.**
Topics covered include the physiochemical principles of pharmacy, such as acid-base theory, solubility, physical states of drugs, thermodynamics, drug stability, excipients, surfactants, dispersions, polymers, drug delivery, chemical compatibility and interactions of drugs in various dosage forms. (PR: P1 status)

532  
**Biopharmaceutics II. 3 hrs.**
Topics covered include mechanisms of both immediate and sustained drug release in formulations involving solid and semi-solid systems; introduction to novel drug delivery systems; drug pre-formulation, the drug approval processes, and regulations governing the pharmaceutical industry; drug preparation, liberation, absorption and stability of dosage. (PR: PHAR 531; CR: PHAR 521)

541  
**Pharmacy Practice I. 4 hrs.**
Begin professional development understanding the responsibilities of a registered pharmacist providing patient care. Professional conduct, personnel management, personal conduct, pharmacy calculations, immunizations, legal issues, and team dynamics are stressed. (PR: P1 status)

542  
**Immunology and Microbiology. 4 hrs.**
Topics covered include an introduction to the classification, morphology and physiology of microorganisms, primarily organisms that can cause human pathology, such as bacteria, viruses, fungi, protozoans, parasites, and worms; the body’s immune response and mechanisms of defense at the cellular and humoral (molecular) level will also be covered in the context of pathogenic organisms, tissue transplants, and autoimmune diseases. (PR: P1 status)

543  
**Pharmacy Practice II. 4 hrs.**
Continued professional development of the pharmacy practitioner. Sterile products, top 200 medications, laboratory values, SOAP notes, documentation, medication safety, patient counseling and technology, communication, and public service are stressed. (PR: PHAR 541)

544  
**Principles of Disease and Drug Action. 4 hrs.**
Topics covered include the concepts and mechanisms of the basic processes underlying disease and pathophysiology; the general principles underlying drug action and therapeutics, including receptor pharmacology, enzyme inhibition and pharmacology; the relationship between drug concentration at the target tissue and drug effect; and concepts in pharmacogenomics and pharmaceutical genetics as they relate to drug action and individual variation in response to drug action, nutrition, and biochemical processes. (PR: P1 status)

545  
**Therapeutics I. 4 hrs.**
Students will learn about the therapeutic use, human physiology, and pharmacologic and chemical properties of over-the-counter medication and non-medication interventions for both treatment and prevention of disease. (PR: PHAR 541; CR: PHAR 511)

551  
**Biomedical Chemistry. 5 hrs.**
Topics covered include the diversity of functional groups found in the molecules of life and pharmaceutical substances; the language used to describe these chemical substances; the acid-base properties of functional groups; the redox properties of functional groups; naturally occurring organic acids, alcohols, simple sugars, carbohydrates, amino acids, peptides, proteins, lipids, glycoproteins, lipoproteins, and basic biological processes, such as membrane structure and function, metabolic pathways and the regulation of metabolism, drug metabolism, drug-receptor interactions, drug-enzyme interactions, and the interaction of drugs and xenobiotics with natural systems. Examples of basic chemical principles will be illustrated by use of the top 200 drugs. A solid foundation on the general principles underlying the relationship between drug structure and function will be provided along with strategies for discovery of new chemical entities (NCEs) and prediction of the pharmaceutical, pharmacokinetic, and pharmacodynamics properties. (PR: P1 status)

611  
**Integrated Laboratory II. 1 hr.**
Practical hands-on experience in modern scientific methods used in biochemistry, pharmaceutics, pharmacology, pharmacoanalytics; and analytical methods employed to detect, characterize, and quantitate naturally occurring substances and drug molecules. (PR: P2 standing)

612  
**Therapeutic Drug Dosing. 1 hr.**
Application of the basic principles of pharmacokinetics and pharmacodynamics to practice settings. Simulation and case-based methods are used to allow integration of pharmacy practice and skills learned during the PHAR 631 course. (PR: P2 standing)

621  
**Pharmacy Law and Ethics. 2 hrs.**
An applied analysis of federal and West Virginia state law and ethical standards in the practice of pharmacy and pharmaceutical care.
Drug Information and Communication Skills. 2 hrs.
Topics covered include basic skills in obtaining and utilizing drug information references, and foundational skills required in patient counseling, such as the Indian Health method of counseling. (PR: P2 standing)

Pharmacoeconomics. 3 hrs.
Topics covered include the basic theory of pharmacokinetics and pharmacodynamics; processes and mechanisms controlling the rate and extent of drug absorption and systemic availability; bioavailability and bioequivalence.

Pharmacy Practice Management I: Leadership. 3 hrs.
Provides students with a working knowledge of important and fundamental aspects of pharmacy practice leadership including, but not limited to: management, strategic planning, motivational theories, and employment issues.

Patient Care Skills Lab. 3 hrs.
Application of physical assessment, triage, patient counseling, and communication skills. Assessment of individual patient, acuity, responsible therapeutic plan, documentation, conflict resolution, and team building are stressed.

Pharmacy Practice Management II: Finance. 3 hrs.
The contemporary practice of pharmacy in the health care system as it fits into the business environment. Health care systems, pharmacoeconomics, planning, evaluating, and decision-making through financial report analysis/case study are stressed.

Bridging Research Outcomes and Patient Care. 3 hrs.
The fundamentals of clinical and outcomes research will be discussed and applied to patient care. Students will gain an understanding of study design, research methods, statistical analysis, and pharmacotherapy.

Therapeutics II. 6 hrs.
This course discusses clinical microbiology and principles of anti-infective therapy as well as the pathophysiology, associated pharmacology, and therapeutic approaches to infectious diseases and conditions of the integumentary system.

Therapeutics III: Cardiovascular, Renal, Pulmonary Diseases and Electrolyte Homeostasis. 7 hrs.
Students will learn about the therapeutic use of medication and non-medication interventions for both treatment and prevention of cardiovascular diseases, renal diseases, pulmonary diseases, and associated electrolyte disorders.

Medication Therapy Management. 1 hr.
The student will learn to resolve medication-related problems to reduce costs and improve outcomes. (PR: P3 standing)

Therapeutics 7: Special Populations. 2 hrs.
This course will emphasize the unique needs and differences in therapeutic recommendations for patients at the extremes of ages, diverse cultural backgrounds, and those with comorbidities and other health conditions. (PR: P3 standing)

Pharmacy Practice Management III: Patient Safety. 2 hrs.
Further professional development in the management of patient safety policies and procedures. Areas covered include robotics, medication reconciliation, discharge planning, risk management, and other methods of improving patient safety. (PR: P3 standing)

Case Studies. 3 hrs.
Students will apply the principles of patient care, practice management, and public health to drug therapy issues though student-centered, problem-based instructional processes. (PR: P3 standing)

Therapeutics 5 - Endocrine Diseases, Genitourinary Diseases and Reproduction. 4 hrs.
Students will learn about the therapeutic use of medication and non-medication interventions for reproduction, and treatment and prevention of endocrine and genitourinary diseases. (PR: P3 standing)

Neurologic and Psychiatric diseases. 5 hrs.
Students will learn treatment and prevention of neurological and psychiatric diseases including the physiology, pathophysiology, pharmacology and therapy. This course emphasizes the pharmacist as a health care provider. (PR P3 standing)

Hematology, Oncology, Nutrition, Hepatic and Musculoskeletal Disorders. 6 hrs.
Students will learn about the therapeutic use of medication and non-medication interventions for reproduction, and treatment and prevention of endocrine and genitourinary diseases. (PR: P3 standing)

Special Topics I. 1-6 hrs.
An opportunity for individual students to gain advanced experiences in practice, research, or service. Students will identify a faculty mentor and jointly develop individualized learning outcomes and a learning plan. (PR: P1 or greater standing in the School of Pharmacy with good academic standing. Development of a learning plan with learning outcomes must accompany request for enrollment. Learning plan requires approval of the associate dean of academic and curricular affairs.)

Special Topics II. 1-6 hrs.
An opportunity for students to didactically explore advanced topics within the profession of pharmacy. (PR: P3 standing)

Introductory Pharmacy Practice Experience in Community Setting I (IPPE 1). 1 hr.
Introduction to community pharmacy practice in a supervised setting. Students are exposed to the role and responsibilities of the community pharmacist, including effective communication and application of laws governing pharmacy. (PR: WVBOP Intern Licensure; CR: P1 status)

Introductory Pharmacy Practice Experience in Institutional Settings 1 (IPPE 2). 1 hr.
Introduction to community pharmacy practice in a supervised setting. Students are exposed to the role and responsibilities of the community pharmacist, including effective communication and application of laws governing pharmacy. (PR: WVBOP Intern Licensure; CR: P1 status)

Introductory Pharmacy Practice Experience in Community Settings 2 (IPPE 3). 1 hr.
Builds on the foundations of the Community Pharmacy 1 Experience. The student will demonstrate critical thinking and problem solving skills, topical counseling skills, and professional attitude and behaviors. (PR: P2 Standing)

Introductory Pharmacy Practice Experiences in Institutional Settings 2 (IPPE 4). 1 hr.
Builds on the foundations of the Institutional Pharmacy 1 Experience. The student will demonstrate critical thinking and problem solving, document professional practice activities, and parenteral compounding abilities. (PR: P2 Standing)

Ambulatory Care Skills (IPPE 5). 1 hr.
Introduces pharmacist student to the ambulatory care setting. Students will be able to develop therapeutic management plan that includes the selection of appropriate drug therapy based on patient characteristics. (PR: P3 standing)

Inpatient Clinical Skills. 1 hr.
Introduces the pharmacist student to the clinical skills needed to be successful in an institutional setting. Students will demonstrate appropriate drug dosing and drug selection based on patient characteristics. (PR: Intern licensure per policy; CR: P3 standing)

Introductory Pharmacy Practice Experiences in Practice Management (IPPE 7). 1 hr.
Students are exposed to the role and responsibilities of a pharmacy team leader, manager, or director and the application of management strategies, tools, and responsibilities. (PR: Intern licensure per policy; CR: P3 status)

Introductory Pharmacy Practice Experiences in Education (IPPE 8). 1 hr.
The pharmacist student will develop and present continuing education programs or active learning exercises, apply instructional as well as learning techniques, and demonstrate mentoring skills. (PR: P3 standing, intern licensure per policy)

Advanced Pharmacy Practice Experience (APPE 1) - General Medicine. 5 hrs.
Provides students pharmacy experience in a clinical, inpatient, acute care and team-based environment. Students will be expected to utilize multiple abilities learned throughout the curriculum in order to collect patient-specific information, evaluate and monitor drug therapy, educate patients and/or caregivers, respond to drug information inquiries and function effectively within a team. (PR: P4 status)
Advanced Pharmacy Practice Experience (APPE 2) - Ambulatory Care/Primary Care. 5 hrs.
The Ambulatory Care/Primary Care APPE provides students experience in an out-patient care, clinically focused practice environment. Students will be expected to utilize abilities learned previously throughout the curriculum in order to perform the following tasks: collect patient-specific information, evaluate and monitor drug therapy, educate patients and caregivers, drug information tasks, and other requirements. (PR: P4 status)

Advanced Pharmacy Practice Experience (APPE 3) - Advanced Community. 5 hrs.
The Advanced Community Pharmacy APPE is a 5-week required advanced pharmacy practice experience in a community pharmacy setting that prepares the student to function within a hospital or health-system of integrated pharmacy services. Particular emphasis is placed on the preparation, distribution, and control of medications, medication monitoring, and the ability to communicate with other healthcare professionals. This rotation develops competence to practice in a hospital staffing position. It integrates problem-solving and clinical skills with the basics of inpatient medication distribution, monitoring and control. (PR: P4 status)

Advanced Pharmacy Practice Experience (APPE 4) - Advanced Institutional. 5 hrs.
The Advanced Institutional Pharmacy Practice Experience (APPE) is a required 5-week experiential rotation in an approved health system that prepares the student to function within a hospital or health-system of integrated pharmacy services. Particular emphasis is placed on the preparation, distribution, and control of medications, medication monitoring, and the ability to communicate with other healthcare professionals. This rotation develops competence to practice in a hospital staffing position. It integrates problem-solving and clinical skills with the basics of inpatient medication distribution, monitoring and control. (PR: P4 status)

Advanced Pharmacy Practice Experience (APPE 5) - Geriatrics. 5 hrs.
The Geriatrics APPE is a 5-week experiential rotation that focuses on provision of clinical pharmacy services in a variety of settings with a focus on care to the elderly population. These sites may include community pharmacies, specialty clinics, rehabilitation hospitals, skilled nursing facilities (SNFs), home-based consult services, and assisted living facilities (ALFs). A focus is placed on the interdisciplinary care of the geriatric population. Student pharmacists will enhance knowledge of how to assess pharmacotherapy and appropriateness of drugs, determine how safely and effectively a patient can self-administer the therapy, and how to implement plans to ensure such safe and effective use. Students will be expected to utilize, refine, and apply their knowledge base of pharmacology, pharmacokinetics, pathophysiology, and therapeutics to enhance the quality of pharmaceutical care of the elderly. (PR: P4 status)

Advanced Pharmacy Practice Experience (APPE 6) - Diverse Populations. 5 hrs.
The Diverse Populations Pharmacy APPE is a 5-week required advanced pharmacy practice experience in a community, ambulatory, or other pharmacy setting to a medically under-served population. The experiential rotation focuses the student experience on providing patient-centered pharmacy care services such as disease management, medication therapy management (MTM), preventative health screenings, immunizations, specialty compounding, or other advanced patient care activities to this and other populations. A focus will be providing care in a culturally sensitive, compassionate, community-oriented, and effective way to a diverse, ethnic, rural, poor, and/or indigent population(s). (PR: P4 status)

Advanced Pharmacy Practice Experience (APPE 7 & 8) - Electives. 5 hrs.
The APPE general elective(s) are 5-week experiential rotation(s) that will give the students the opportunity to participate in a variety of pharmacy practice experiences, depending on the rotation site and practice setting, related to direct patient care, supportive patient care, or not related to patient care. Students must complete 2 elective rotations. (PR: P4 status)

PHILOSOPHY (PHL)

Ancient Philosophy. 3 hrs.
Advanced study of major philosophers drawn from the ancient Greek and Roman period.

Modern Philosophy. 3 hrs.
Advanced study of major movements in philosophy from the 17th century on, including movements such as rationalism, empiricism, idealism, and existentialism.

Metaphysics. 3 hrs.
A study of what Aristotle called “first philosophy” or the study of being, later called metaphysics.

Philosophy of Knowledge. 3 hrs.
Advanced study of the nature and possibility of knowledge.

Philosophy of History and Culture. 3 hrs.
Ancient and modern theories of the meaning and consequence of history and culture.

Philosophy of Science. 3 hrs.
Crucial concepts in modern science relevant to contemporary philosophical issues concerning man and the universe; special attention to epistemological and ethical implications of natural law, induction, mathematical theory and the new physics.

Philosophy of Religion. 3 hrs.
Theories of the nature and functions of religion, including the meaning of religious language and problems of belief.

Philosophy of Politics and Power. 3 hrs.
Advanced study of the significance or the place in human reality of political organization, negotiation, strategy, and power.

Philosophy of Feminism. 3 hrs.
An introduction to contemporary feminist theory including discussion of current gender-related issues.

Existential Philosophy. 3 hrs.
A survey of the contributions of leading existentialist philosophers of the past and present from Kierkegaard and Nietzsche to Sartre and Tillich; course is conducted much like a seminar.

Logic. 3 hrs.
Advanced study of the nature of logic; whether logic is possible at all, how far it applies, and wether and how there can be conflicting logics.

Special Topics. 1-4; 1-4; 1-4 hrs.

Independent Study. 1-4; 1-4; 1-4 hrs.

Directed Readings in Philosophy. 3 hrs. I, or II.
Advanced research adaptable to the needs of students. Regular consultations with the chairman and staff.

Humanities Seminar. 3 hrs.

PHYSICAL SCIENCE (PS)

Astronomy. 3 hrs.
A study of the stars and planets and galaxies, planetary motion, cosmology and cosmomophy. Designed to assist teachers and others to develop an interest in astronomy. (PR: PHY 201 or PHY 211 or PS 109; and CR: PS 500L)

Astronomy Laboratory. 1 hr.
Fundamental observations in astronomy and their interpretation through physical laws. Quantitative discussion of orbital motion, time, telescopes, solar system, stars, galaxies, and limited opportunity for astronomical observation. (PR or CR: PS 500)

Physical Principles of Remote Sensing with Applications. 4 hrs.
A study of the physical systems for collecting remotely sensed data. Statistical/spatial analysis and modeling using image processing/geographic information/spatial analysis computer software systems with earth resource applications. (PR: PHY 203 and 204, MTH 225, or permission)
Courses of Instruction

Marshall University

511 Digital Image Processing and Computer Simulation Modeling. 4 hrs.
A study of image processing/geographic information and spatial analysis hardware/software systems, concurrent and parallel image processing modeling scenarios utilizing geobiophysical data for computer simulation modeling and practicum. (PR: PS 410/510 or permission)

525 Development of Scientific Thought. 3 hrs.
A study of the people and ideas which have influenced science; the philosophy of their periods; the economic conditions leading to scientific advancement and the works of the foremost scientists in the field. (PR: A total of twelve hours in Physical Science, Physics, and Chemistry courses)

570 Practicum. 4 hrs.
Problem solving, geobiophysical modeling, and proposal development techniques in the physical sciences. (PR: PS 411, 511 or Permission)

616 X-Ray Diffraction. 3 hrs.

610 Special and General Relativity, the classical theory of one of the four fundamental forces, is not a standard course offering. This course of Special and General Relativity intends to fill this gap by introducing the key concepts that lead to a revolution in our understanding of space and time. The students will learn about spacetime curvature, metrics, geodesics, black holes, gravitational waves and cosmology. (PR: Permission of instructor)

616 X-Ray Diffraction. 3 hrs.
Offered on demand. A study of the properties of X-rays, X-ray diffraction, and crystal structure. 2 lec-3 lab. (REC: CHM 358 or equivalent)
MODERN HISTORY (HIS)

634 Historical Economics. 3 hrs.
This course studies complex phenomena that occur in solids and quantum liquids, and exposes the students to some theoretical tools used to describe the basic interactions behind these phenomena. (PR: Permission of instructor)

630 Classical Mechanics. 3 hrs.
Study of variational principles and Lagrange's equations, the two-body central force problem, the kinematics and dynamics of rigid-body motion, Hamilton's equations of motion, canonical transformations, Hamilton-Jacobi theory, and small oscillations.

631-632 Seminar. 1 hr. I, II.

640 Fundamentals of Physics. 4 hrs. S.
Offered on demand. A course in fundamental concepts of physics. Subject content varies. Designed primarily to strengthen conceptual understanding of teachers.

644 Atomic Physics. 3 hrs.
A historical development of the modern theories concerning the structure of matter, electricity, and light, including applications of optical spectra and x-rays. (PR: PHY 203, 204 or PHY 213, 204 or equivalent)

661-662 Special Topics. 1-3 hrs.

682 Thesis Research. 1-6 hrs. I, II, S.
(PR: Graduate status and approval of advisor)

685-686 Independent Study in Physics. 3 hrs.
Advanced independent study in physics. (PR: specific to course)

PHYSIOLOGY (PHS)

626 Neurophysiology I: Neuron Function and Introduction to Neural Systems. 1 hr.
To study and understand the basic functional principles of the cells of the nervous system, and organization of cells into functional systems. (PR: BMS 600 or permission of instructor)

627 Neurophysiology II: Neuronal Systems. 1 hr.
To study and understand the major functional systems of the brain. (PR: PHS 626)

628 Mammalian Neurophysiology. 2 hrs.
This course is a basic introductory, survey course covering neurophysiology from subcellular level to behavioral level. (PR: Consent of instructor)

629 Mammalian Physiology. 6 hrs. II.
A study of mammalian systems including pulmonary, renal, cardiovascular, gastrointestinal, endocrine and reproductive systems. Emphasis will be placed on homeostatic mechanisms and on experimental approaches to physiology. (PR: PHS 628 or PHS 626, PHS 627)

630 Neurophysiology Research Techniques. 3 hrs.
Class participants will be exposed to state-of-the-art neurophysiology research techniques while in the laboratories of neurophysiology faculty.

639 Neurophysiology Research Techniques. 3 hrs.
Recently published articles in a selected area of physiological investigation will be presented by participants in the class. Each presentation will be followed by a discussion and evaluation of the paper. (PR: Consent of instructor)

666 Physiology of the Cell. 3 hrs.
An in-depth study of selected topics in cell physiology.

675 Special Topics. 1-4 hrs.
Present course material on special areas of research or topics which are not routinely covered in existing courses.

676 Special Topics. 1-4 hrs.
Present course material on special areas of research or topics which are not routinely covered in existing courses.

677 Special Topics. 1-4 hrs.
Present course material on special areas of research or topics which are not routinely covered in existing courses.

POLITICAL SCIENCE (PSC)

505 International Organization. 3 hrs.
Study of world and regional organizations as reflections of world politics, as instruments of foreign policies, and as forces for change and order, with emphasis on their role as channels for management of cooperation and conflict.

506 International Politics. 3 hrs.
Study of major issues in world politics, with emphasis on theoretical approaches, problems of war and peace, and contemporary trends.

507 Asian Politics. 3 hrs.
Study of such nations as India, China, Japan, and Korea in the contemporary setting.

508 Middle Eastern Politics. 3 hrs.
Study of the Arab States and such nations as Israel, Iran and Turkey in the contemporary setting.

509 Western Democratic Politics. 3 hrs.
Study of such nations as Canada and those of Western Europe, particularly Great Britain and France.

510 Politics of Russia and the Former Soviet Union. 3 hrs.
The study of the politics of Russia and the former Soviet Union.

511 Latin American Politics. 3 hrs.
This course studies Latin American politics by sectors, such as landed elites, the military, the church, etc. Various styles of governance are considered. Case examples illustrate concepts discussed.

512 International Political Economy. 3 hrs.
This course will examine the evolution and structure of the global economic system with emphasis on the development of the Liberal International Economic Order.

515 International Law. 3 hrs.
Study of theories, origins, sources, development, present state, and trends of international law as a factor in various aspects of international politics.

516 Politics of Development. 3 hrs.
A survey of major theories of development and modernization and issues confronting developing nations around the world.

517 Homeland Security and Civil Liberties. 3 hrs.
An examination of the policy issues involved in protecting the U.S. homeland from terrorist and other threats, with special attention to the impact such policies have on individual liberties.
American Political Thought II. 3 hrs.
This course is a detailed examination of the philosophical and historical roots of American politics from Reconstruction through the present with emphasis on original texts.

Women and Political Thought. 3 hrs.
This course examines how women were conceptualized in the history of political philosophy and how women then began conceptualizing themselves and their relation to politics.

Current World or Regional Issues. 3 hrs.
An intensive study of specific world or regional problems, such as the politics of world hunger. The role of multinational corporations, imperialism, third world communist movements, etc.

American Political Thought I (Founding to Civil War). 3 hrs.
This course is a detailed examination of the philosophical and historical roots of American politics from the Colonial era through the Civil War with emphasis on original texts.

African Political Systems. 3 hrs.
The study of political systems of selected countries, blocs or regions.

American Foreign Policy. 3 hrs.
The study of descriptive, analytical, and normative aspects of American foreign policy with emphasis on contemporary problems and issues.

Ancient Medieval Political Thought. 3 hrs.
Selectives study of classics of Western political theory from earliest times through the 15th century, such as that of Plato, Aristotle, the Romans, Augustine, and Aquinas.

Modern Political Thought. 3 hrs.
Selectives study of classics of Western political theory from the 16th century through the 19th century, such as that of Machiavelli, Bodin, Hobbes, Locke, Rousseau, Hume, Burke, Mill, and Marx.

Shapers and Definers. 3 hrs.
A study of political leaders who have shaped and defined the American constitutional tradition.

Islamic Political Ideas and Institutions. 3 hrs.
A study of Islamic political ideas, practices and institutions and their impact on the rise and development of contemporary Islamic movements, organizations and states.

The Politics of Conflict and Revolution. 3 hrs.
Study of major theories of conflict and revolution with emphasis on cross-national explanations and outcomes.

Political Ideologies. 3 hrs.
This course examines modern political ideologies including Liberalism, Conservatism, Anarchism, Socialism, Fascism, Feminism, and Environmentalism with emphasis on the original texts.

Politics of Global Terrorism. 3 hrs.
An examination of terrorism globally, both in its development and its current manifestations, with attention to its attractions, the difficulties of confronting it, and its implications for democratic society.

Nonprofit Management. 3 hrs.
This course examines the principles and applied practices of nonprofit administration including theories of nonprofit formation, fundraising appeals, executive leadership, marketing, budgeting, and strategic management.

Public Administration and Policy Development. 3 hrs.
An examination of alternative theoretical approaches to the study of policy and administration and their implications for the use of policy to shape administrative practice.

Intelligence and Covert Ops. 3 hrs.
A survey of the institutions and processes of the U.S. intelligence community, with an emphasis on the vital role of intelligence in national security.

The American Judiciary. 3 hrs.
Structure and behavior in American national and state judicial systems, including analysis of their decision making and policy making functions, their procedures and administration, and problems and trends.

Power in American Society. 3 hrs.
An examination of some of the major theoretical approaches-pluralist, elitist, etc., to the study of power. A major concern is on the relationship between the distribution of political resources and the performance of political systems. Efforts to transform political systems are examined on the basis of cross-national research.

American Politics in Film. 3 hrs.
This course examines the way the American people view their political leaders and institutions through the use of film, with a critical eye towards the ebb and flow of public approval or disapproval.

Politics and Welfare. 3 hrs.
A comparative course examining the political institutional methods states use to assist citizens who are poor, primarily women and children. It also addresses behavioral concerns that shape welfare policy.

Dictatorship and Democracy. 3 hrs.
An investigation of the strengths of democracies relative to dictatorships with regard to such dimensions as economic growth, income equality, health and welfare of citizens and war reduction.

Environmental Politics. 3 hrs.
Course examines multiple perspectives on the relationship between humans and nature, focusing on how particular interpretations of this relationship determine how we translate environmental concerns into political problems.

Politics in History. 3 hrs.
A study of politics as an order-shattering, order-restructuring force during some of America’s most transformative moments.

Administrative Law. 3 hrs.
A study of the basic legal framework of administrative organization, including the problems of administrative discretion, rule making and adjudication, regulatory agencies, and administrative responsibility in the democratic state. (PR: PSC 333)

Public Personnel Administration. 3 hrs.
Survey of Public Personnel Administration with particular attention on various facets of the merit system concept. Psychological and human relations aspects of the work situation and supervisor-subordinate interaction emphasized. (PR: PSC 333 or permission)

Governmental Budgetary Administration. 3 hrs.
Study of organization, administration, and accountability in the management of public funds, with emphasis on the political decision-making processes of budget formulation, presentation, and execution. (PR: PSC 333 or permission)

Administrative Organization and Behavior. 3 hrs.
A study of the contributions of the behavioral sciences to the study of organizations with stress on such concepts as leadership, motivation, power conflict, organizational design and decision making.

Civil Rights and Liberties. 3 hrs.
The basic substantive and procedural elements of American constitutional liberties and civil rights with emphasis on historical development as influenced by social and political forces.
PSYCHOLOGY (PSY)

503 Applied Social Psychology. 3 hrs.
Examination of the applications of social psychological methods, theories, principles and research findings to the understanding of social problems.

506 Psychometrics. 3 hrs.
Mental test theory and applications.

508 Abnormal Psychology. 3 hrs.
Study of the nature, causes and treatment of maladaptive human behavior.

515 Child Psychology. 3 hrs.
Introduction to child development with major emphasis on normal growth and development. Specific topics include theories of child development and the biological, mental, emotional, social and cognitive growth and development of children.

516 Psychology of Learning. 3 hrs.
Critical study of the major theories of learning and related research.

517 Intermediate Behavioral Statistics. 3 hrs.
An intermediate level presentation of descriptive and inferential statistics as applied in behavioral research.

518 Psychology of Personnel. 3 hrs.
Psychological principles and methods applied to functions in personnel administration.

519 Theories of Personality. 3 hrs.
Discussion of theories of personality with attention given to major philosophies of science research and methodological problems in personality theory and research.

520 Introduction to Industrial-Organizational Psychology. 3 hrs.
A systematic study of the application of psychological methods and principles in business and industry. Emphasis is on research methods, motivation, training, leadership, personnel selection, employee safety, and job satisfaction.
Cross Cultural Psychology. 3 hrs.
Emic and etic cultural concepts are considered from an American (subcultural) and international perspective. Cultural influences on healing, health and service are covered.

Computer Applications in Psychology. 3 hrs.
An introduction to computer applications in psychology, emphasizing data collection, management, organization, analysis and reporting.

Current Models of Psychotherapy. 3 hrs.
Introduction to theoretical models and related therapeutic strategies which influence the practice of modern psychotherapy.

Physiological Psychology. 3 hrs.
The relationships between physiological functions and biochemical processes and behavior.

Health Psychology. 3 hrs.
Introduction to the contribution of psychology to the promotion and maintenance of health and the prevention and treatment of illness. (PR: PSY 201 & 323)

History and Systems of Psychology. 3 hrs.
Overview of Psychology from historical perspective. (REC: 12 hours of psychology or equivalent)

Love, Intimacy, and Attachment. 3 hrs.
Examination of how childhood attachments, bonds, and relationships, affect and influence adult perspectives on love, expectations, intimacy, fidelity, and commitment.

Race, Culture, and Developmental Processes. 3 hrs.
Examine the roles that race, ethnicity, and culture play in the physical, cognitive, intellectual, and social developmental processes of people of color.

Special Topics. 1-4; 1-4; 1-4; 1-4 hours.
Teaching of Psychology. 3 hrs.
A course designed to train psychology graduate students to teach a course in introductory psychology. (PR: Graduate status in Psychology and a minimum of 9 hours Psychology Graduate credit)

Ethical, Legal, and Professional Issues in Psychology.
An introduction to ethical standards and issues, laws which influence psychological practice, and current challenges facing psychology as a profession.

Advanced Social Psychology. 3 hrs.
Advanced study of selected topics in social psychology.

Differential Diagnosis and Treatment Planning. 3 hrs.
A course using the instruments and techniques of psychological clinical assessment to explore psychopathology with an emphasis on differential diagnosis and treatment planning. Students will become competent in the use of the diagnostic and statistical manual for classification of mental disorders and will be able to translate linguistic data into the goals and objectives of a treatment plan.

Assessment of Adults. 3 hrs.
Principles and methods of psychological assessment for adults. Key issues in test construction, and training in report writing. (PR: Admission to Clinical Psychology area of emphasis or to Psy.D. program; CR: PSY 620)

Assessment of Children. 3 hrs.

Advanced Developmental Psychology. 3 hrs.
Psychological development from conception with a focus on major developmental principles, issues, and concepts. An introduction to conducting research with developmental topics and experience in applying basic developmental principles to work situations will be provided. (PR: PSY 515 or equivalent with permission of instructor)

Human Memory and Information Processing. 3 hrs.
Theory and research relating to human learning, memory and decision processes. (PR: PSY 323 or equivalent)

Psychotherapy with Children. 3 hrs.
Discussion and analysis of the major theories of psychotherapy with children including psychoanalytic, client-centered, existential, and behavioral theories. Students will be expected to participate in an experiential component. (PR: admission to Clinical Psychology area of emphasis, School Psychology program, or Psy.D. program or permission)

Assessment of Adults Practicum. 1 hr.
Students will be expected to administer, score, interpret and write reports for a battery of tests used with adults. Must be taken concurrently with PSY 610.

Assessment of Children Practicum. 1 hr.
Students will be expected to administer, score, interpret and write reports for a battery of tests used with children. Must be taken concurrently with PSY 611.

Experimental Design. 3 hrs.
An introduction to the design and interpretation of behavioral research. Emphasis is upon tests of significance and assumptions governing their application. (PR: PSY 517 or equivalent)

Multivariate Analysis. 3 hrs.
Multivariate analysis in behavioral research including multiple regression, analysis of variance, canonical correlation, and principal components and factor analysis. (PR: either PSY 623 or PSY 652)

Social Psychological Bases of Groups. 3 hrs.
Examination of the dynamics of groups such as size, cohesion, leadership, norms and communication channels and their effects on the individual members; consideration of the impact of groups on the larger social structure.

Adult Diagnosis and Therapy. 3 hrs.
Current diagnostic criteria for adult psychopathology, including prevalence, epidemiology and socio-cultural milieu; in-depth presentation of psychotherapy with adults, including psychodynamic, gestalt, crisis and other modalities. (PR: PSY 533 or equivalent; or permission; admission to clinical psychology area of emphasis)

Individual Psychotherapy and Interviewing. 3 hrs.
An introduction to the basic skills and techniques used in treating various forms of psychopathology. (PR: Admission to Clinical Psychology area of emphasis or Psy.D. program)

Group Therapy. 3 hrs.
Different types of group psychotherapy as appropriate for various forms of psychopathology. (PR: Admission to Clinical Psychology area of emphasis or Psy.D. program; PSY 633)

Child and Family Diagnosis and Therapy. 3 hrs.
This course covers psychopathology, diagnosis and treatment of the major child and family disorders including childhood anxiety, depression, delinquency, parent-adolescent conflict, eating disorders, and others. (PR: Admission to clinical psychology area of emphasis, Psy.D. program, or permission)
650 Seminar in Performance Appraisal. 3 hrs.
The course will offer students a research-based investigation of the performance evaluation process within work organizations. Emphasis is given to human rater x ratee x appraisal system features interactions. (PR: Graduate standing in Psychology; or permission of the instructor)

651 Advanced Nonparametric Statistics. 3 hrs.
An advanced survey of distribution-free statistical methods; dichotomous observations, one-sample tests, two sample tests for both independent and dependent observations, k-sample tests for both independent and dependent observations, ordinal correlational techniques, and relational measures. This course emphasizes both the theoretical constructs of distribution-free statistics and their application. Computer application of these techniques is stressed. (PR: PSY 517)

652 Advanced Regression Techniques. 3 hrs.
Survey course of the theoretical development and application of multiple regression, advanced univariate correlational techniques, covariant analysis, and an introductory factor analysis. The course emphasis is on the application of these techniques to research and data analysis within the student's professional setting. Students will be expected to design and solve problems using computer-based models. (PR: PSY 517)

654 Single Subject Analysis. 3 hrs.
Statistical analysis of small group designs as might be found in clinical and field situations. Emphasis will be on time series analysis and computer simulation of single subject and small group behaviors. (PR: PSY 517)

656-657 Research in Psychology. 1-3; 1-3 hrs.
A laboratory course designed to give advanced students experience in all aspects of conducting psychological research. (PR: Permission of instructor)

670-671 Clinical Practicum. 1-3; 1-3 hrs.
Supervised application of principles of therapy and evaluation in a clinical setting. CR/NR grading. (PR: PSY 611, 633 and consent of instructor)

672 Cognitive and Emotional Bases of Behavior. 3 hrs.
An exploration of the research and theory concerning cognitive and emotional processes and their influences on behavior.

674 Biological Bases of Behavior. 3 hrs.
A course designed to provide an understanding of the psychophysiological functions of the human organism as an operating entity in the environment. The areas to be covered include the basic characteristics of the nervous system and the internal physiological and biochemical environment; various models of genetic aberrations, stress, drugs and other physiological anatomical factors and their observed effects on behavior. Data will be drawn from experimental work on both human and infrahuman organisms. Both theoretical and applied aspects will be considered. (PR: 6 credit hours in biology or psychology)

675-679 Practicum in Teaching of Psychology. 1-3 hrs. CR/NC.
Supervised teaching experience in introductory psychology, including development of lectures, classroom demonstrations, quizzes, tests, extra-credit activities and syllabi.

679 Testing in Industrial/Organizational Psychology. 3 hrs.
An in-depth study of psychological and educational test theory and application. Emphasis is on classical test theory, constructs, and validation, including sources of variance in test scores and prediction of individual performance. Students will be expected to design, construct, and establish reliability and validity on a test as a class project.

680 Clinical Internship. 1-6 hrs. CR/NC.
Placement in an approved mental health setting for minimum of 400 hours. Supervised by on-site personnel in addition to psychology faculty. CR/NC grading. (PR: completion of required clinical practicum sequence)

681 Thesis. 1-6 hrs. CR/NC.

683 Internship in Industrial/Organizational Psychology. 3 hrs. CR/NC.
This course will offer students applied observational/research experience in Personnel/Human Resource Departments under the supervision of professionals within the fields of Industrial/Organizational Psychology and Human Resources. CR/NC grading. (PR: Advanced standing and admission into the I/O degree program)

685-686 Independent Study. 3 hrs.
690-695 Seminar. 1-3; 1-3; 1-3; 1-3 hrs.
Reports on current problems and literature in psychology and related fields; professional ethics. (PR: consent of instructor)

706 Integrated Assessment I. 3 hrs.
Integrated, battery-based assessment of adults with emphases on test selection and construction, validity, reliability, special populations, cultural and individual differences, and preparation of professional reports. (PR: Admission to Psy.D. program; CR: PSY 707)

707 Integrated Assessment Practicum I . 1 hr.
Instrument administration for the psychological assessment of adults; includes multiple diagnostic procedures. (PR: Admission to Psy.D. Program, CR: PSY 706)

708 Integrated Assessment II. 3 hrs.
Integrated, battery-based assessment of children with emphases on test selection and construction, validity, reliability, special populations, cultural and individual differences, and preparation of professional reports. (PR: Admission to Psy.D. program, PSY 706 and PSY 707; CR: PSY 709)

709 Integrated Assessment Practicum II . 1 hr.
Instrument administration for the psychological assessment of children; includes multiple diagnostic procedures. (PR: Admission to Psy.D. program, PSY 706 and PSY 707; CR: PSY 708)

710 Advanced Psychological Assessment. 3 hrs.
This course will offer coverage in advanced topics in psychological assessment. This topics will include geriatric assessment, assessment of addictions, neuropsychological screening, forensic assessment, and cross-cultural assessment issues. (PR: Admission to Psy.D. program or permission of instructor)

712 Geropsychology. 3 hrs.
An examination of normal and abnormal processes of aging, including common social, cognitive, health and psychopathological problems, will be studied. Issues of community resources, assessment, and therapy will be discussed. (PR: Admission to Psy.D. program or permission of instructor)

713-714 Advanced Assessment Practicum. 1-3 hrs.
This experience is designed to increase proficiency in psychological assessment through client experience. Students are supervised by a licensed psychologist in the campus training clinic.

717 Advanced Quantitative Analysis. 3 hrs.
An advanced level presentation of inferential statistics as applied in behavioral research as a part of experimental design and literature review. (PR: PSY 517 or equivalent)

723 Clinical Research Methods in Psychology. 3 hrs.
This course will provide an overview in basic research methods and ethical issues prevalent in the field of clinical psychology. Use of research to document clinical outcomes will also be addressed.

726 Advanced Studies in Cross Cultural Psychology. 3 hrs.
Comprehensive, broad scope course covering research topics, definitions and methodology; behavioral health needs of minorities; cultural perspectives on health / healing / wellness; international applications of psychological theory / practice.
731  Psychotrope I. 3 hrs.
An introduction to theories underlying psychodynamic, cognitive, and behavior psychotherapies. Content will focus on basic concepts, theories of these models, and current empirical evaluation and evidence-based practice of these therapies. (PR: Admission to Psy.D. program or permission of instructor)

732  Psychotrope II. 3 hrs.
An additional overview of the theories underlying psychodynamic, cognitive, and behavior psychotherapies. Content will focus on intervention and treatment planning, including current empirical evaluation and evidence-based practice of these therapies. (PR: Admission to Psy.D. program or permission of instructor)

733  Psychotrope III. 3 hrs.
An advanced overview of the theories underlying psychodynamic, cognitive, and behavior psychotherapies with an emphasis on common elements and integration of these approaches and alternative or innovative models. (PR: Admission to Psy.D. program or permission of instructor)

750  Clinical Health Psychology. 3 hrs.
This course will provide an overview of common medical problems, and their related psychological issues. Adjustment issues, health behavior, family impacts, and medical compliance will also be discussed. (PR: Admission to Psy.D. program or permission of instructor)

752  Rural Community Psychology I. 3 hrs.
This course presents an overview of the philosophy, issues, methods, and interventions of community psychology practice. Students will complete field projects as part of the experience. (PR: Admission to Psy.D. program or permission of instructor)

753  Supervision in Clinical Psychology. 3 hrs.
Review of current supervision research and theory combined with opportunities for doctoral students to gain supervised experience in clinical supervision. (PR: Admission to Psy.D. program or consent of instructor)

755  Rural Community Psychology II. 3 hrs.
This course prepares students to undertake supervised practice in rural areas, including employment of appropriate research techniques and the design of culturally and economically effective interventions. (PR: Admission to Psy.D. program or permission of instructor)

764  Advanced Studies in Human Sexuality. 3 hrs.
An examination of the knowledge and theory which explain important areas of sexual behavior. Topics emphasize sexual orientation, sexual dysfunctions, gender identity, paraphilias, and compulsive and coercive behaviors. (PR: Admission to Psy.D. program or permission of instructor)

769  Practicum in Clinical Psychology. 3 hrs.
Supervised application of principles of therapy and evaluation in a clinical setting. (PR: Admission to Psy.D. program)

770-71  Advanced Practicum in Clinical Psychology. 3 hrs.
Students provide supervised clinical services at an approved field site. (PR: Admission to Psy.D. program)

772-773  Rural Practicum I & II. 3 hrs.
Supervised two-semester sequence providing field experience in rural mental health settings. (PR: Admission to Psy.D. program)

780-783  Pre-Doctoral Internship. 1-9 hrs.
This is the final, capstone clinical training experience completed by students in the doctoral program in clinical psychology (Psy.D.). Students must complete the equivalent of a full-time, full-year clinical placement at a site that is APA/APPIC accredited or has been approved by the clinical faculty. (PR: Completion of all coursework in the Psy.D. program; successfully pass doctoral comprehensive; approval of faculty)

790-96  Seminar in Clinical Psychology. 1-3 hrs.
Seminars on current topics and issues of interest to clinical psychologists. Topics will change for each semester. Psy.D. program students are required to enroll for six semesters of seminars; check with advisor for details. (PR: Admission to Psy.D. program)

799  Doctoral Research. 1-9 hrs.
Doctoral research project under the supervision of research committee and chair. (PR: Permission of program coordinator)

PHYSICAL THERAPY (PT)

700  Gross Anatomy for Physical Therapy. 5 hrs.
Lecture and laboratory focusing on anatomical structure and function of the human body. Cadaveric dissection provides practical experiences allowing students to develop working images of the body and its function.

701  Neuroanatomy. 4 hrs.
Normal and abnormal structure and function of central, peripheral and autonomic systems, neurodevelopment, and neural mechanisms mediating motor control and pain with emphasis on clinical relevance to physical therapy.

702  Neuroscience I. 1 hr.
Comprehensive screening, exam and evaluation of patients with neurological dysfunction with focus on selection and interpretation of examination components in order to discern underlying pathophysiology reflective of neurological dysfunction.

703  Neuroscience II. 2 hrs.
Functional neuroanatomy and neuropathology correlated with select neuropathological conditions or injury, focusing on etiology, epidemiology, clinical signs, symptoms, neural substrates of cognitive, perceptual, sensory, and motor functions and dysfunctions.

704  Neurorehabilitation. 4 hrs.
Theoretical basis and clinical application of neurophysiological approaches to treatment utilizing motor control, sensorimotor development and integration principles, including discussion and practice of current methods of evaluation and intervention.

710  Introduction to Human Movement. 3 hrs.
Lecture and laboratory introducing students to basic histology of connective, nervous, epithelial and muscle tissue utilized in human movement, palpations skills, goniometry and manual muscle testing.

711  Human Movement I. 4 hrs.
Biomechanical terminology and principles, muscle actions, joint mechanics, joint segments and whole body movement pattern analysis, and mastery of human movement observational analysis skills necessary for differential diagnosis of movement dysfunction.

712  Human Movement II. 4 hrs.
Reviews maturation of movement systems, lifespan motor skills development, and contemporary theories of motor control and learning to build evidence-based foundations for evaluation and management of movement dysfunction.

713  Human Movement III. 2 hrs.
Practice of standardized clinical tools utilized in assessment of movement dysfunction across various patient populations. Review of statistical data (population specific reliability, validity, sensitivity, specificity, odds ratios) on said tools.

720  Advanced Clinical Physiology. 3 hrs.
Reviews normal human cellular- and organ-level physiology, histology, and function, and introduces related topics of pathophysiology including: clinical signs and symptoms, clinical laboratory science, medical management and pharmacological issues.

721  Applied Exercise Physiology. 3 hrs.
Physiological effects of exercise and training in healthy individuals and individuals with pathological dysfunction.
Continued application of information and clinical skills learned in concurrent and prior DPT coursework in a small group discussion and pseudo-
Clinical Application Seminar and Experiences VI. 1 hr.

Clinical Application Seminar and Experiences V. 1 hr.

Continued application of information and clinical skills learned in concurrent and prior DPT coursework in a small group discussion and pseudo-
Clinical Application Seminar and Experiences III. 1 hr.

Clinical Application Seminar and Experiences II. 1 hrs.

A seminar course designed to foster application of information and clinical skills learned in concurrent and prior DPT coursework in a small group discussion and pseudo-clinical setting. Focus on critical thinking, clinical reasoning, and patient-centered care in a simulated clinical setting. Focus on upper and lower extremities.
Clinical Application Seminar and Experiences IV. 1 hr.

Continued application of information and clinical skills learned in concurrent and prior DPT coursework in a small group discussion and pseudo-clinical setting. Focus on spinal pathology and neuromuscular dysfunction.
Clinical Application Seminar and Experiences V. 1 hr.

Continued application of information and clinical skills learned in concurrent and prior DPT coursework in a small group discussion and pseudo-clinical setting. Focus on interdisciplinary management of patients with complex concerns.
Clinical Application Seminar and Experiences VI. 1 hr.

Continued application of information and clinical skills learned in concurrent and prior DPT coursework in a small group discussion and pseudo-clinical setting. Focus on evidence-based practice and critical thinking in a simulated clinical setting. Focus on cardiopulmonary and complex neuromuscular dysfunction.

Continued application of information and clinical skills learned in concurrent and prior DPT coursework in a small group discussion and pseudo-clinical setting. Focus on decision making, diagnosis, and hypothesis development, utilization of information sources, and principles, concepts, and skills required to critically analyze and conduct clinical research in physical therapy.
Evidence-Based Practice I. 2 hrs.

Decision making, diagnosis, and hypothesis development, utilization of information sources, and principles, concepts, and skills required to critically analyze and conduct clinical research in physical therapy.
Evidence-Based Practice II. 2 hrs.

Continuation of Evidence-Based Practice II where students receive continued guidance in the completion of the faculty led capstone project begun in EBP II. Presentation of capstone required before graduation.
Evidence-Based Practice III. 1 hr.

Continuation of Evidence-Based Practice III where students receive continued guidance in the completion of the faculty led capstone project begun in EBP II. Presentation of capstone required before graduation.
Evidence-Based Practice IV. 1 hr.

Continuation of Evidence-Based Practice IV where students receive continued guidance in the completion of the faculty led capstone project begun in EBP III Presentation of capstone required before graduation.
Evidence-Based Practice V. 1 hr.

Continuation of Evidence Based Practice V where students receive continued guidance in the completion of the faculty led capstone project begun in EBP II culminating with presentation of completed capstone.
Clinical Application Seminar and Experiences I. 1 hr.

A seminar course designed to foster application of information and clinical skills learned in concurrent and prior DPT coursework in a small group discussion and pseudo-clinical setting. Focus on clinical interview and basic evaluation skills.
Clinical Application Seminar and Experiences II. 1 hrs.

Continued application of information and clinical skills learned in concurrent and prior DPT coursework in a small group discussion and pseudo-clinical setting. Focus on general interventions in neuromuscular dysfunction.
Clinical Application Seminar and Experiences III. 1 hr.

Continued application of information and clinical skills learned in concurrent and prior DPT coursework in a small group discussion and pseudo-clinical setting. Focus on upper and lower extremities.
Clinical Application Seminar and Experiences IV. 1 hr.

Continued application of information and clinical skills learned in concurrent and prior DPT coursework in a small group discussion and pseudo-clinical setting. Focus on spinal pathology and neuromuscular dysfunction.
Clinical Application Seminar and Experiences V. 1 hr.

Continued application of information and clinical skills learned in concurrent and prior DPT coursework in a small group discussion and pseudo-clinical setting. Focus on interdisciplinary management of patients with complex concerns.
Courses of Instruction

Marshall University
Social and Behavioral Aspects of Public Health. 2 hrs.
Examination of the application of social and behavioral sciences in public health, with emphasis on behavioral theory and related mechanisms for effecting individual and group change in health status.

Health Communications. 2 hrs.
Students learn methods to communicate health information effectively with disparate groups, develop communications strategies appropriate to diverse content and audiences, and gain skill in utilizing innovative interactive media.

Health Promotion and Disease Prevention in Public Health. 3 hrs.
This graduate course provides students with a broad knowledge base of health promotion and disease prevention in public health.

Introduction to Health Policy. 2 hrs.
An introduction to legal and policy foundations of U.S. health care, including its delivery, regulation and financing. Students develop skills in policy analysis and formulation, and learn principles of advocacy.

Environmental Public Health. 3 hrs.
This graduate course provides students with a broad knowledge base of environmental public health science by addressing the significance of the environment on human health and wellness.

Chronic Disease. 3 hrs.
Examination of major chronic diseases including mechanisms of development, risk, diagnosis and interventional strategies. Scope of the course includes cardiovascular, respiratory and neurodegenerative disorders, as well as diabetes and cancer. (PR: PH 611)

Community Health. 3 hrs.
Students learn how to facilitate programs and capacity building to enable communities to identify and address health issues. Students gain training in surveying and interviewing, and in health impact assessment.

Global Health. 3 hrs.
An introduction to global health, including examination of disparities, development. The roles of governments, NGOs and citizens are examined; and students gain experience in issue analysis and developing health strategies. (PR: PH 611)

Principles of Epidemiology in Public Health. 3 hrs.
Basic epidemiology principles, concepts, and procedures useful in the surveillance and investigation of health-related states or events. It is designed for federal, state, local government and private sector health professionals responsible for disease control.

Health Informatics and Technology. 3 hrs.
An introduction to health information technology applications and issues, as well as the growing impact of advances in biotechnology on public health.

Community Health Assessment and Improvement Planning in Public Health. 3 hrs.
The Community Health Assessment and Improvement Planning course introduces students to the concepts and techniques of community health improvement and the role of assessment.

Master of Public Health Practicum. 6 hrs. CR/NC.
To provide students with opportunity to apply concepts and knowledge from the MPH curriculum and demonstrate competency in the public health practice setting. (PR: Students should have completed all MPH core courses and the majority of other MPH coursework)

Seminar. 1 hr.
Introduction to health science literature review and critique, as well as presentation of research and practicum reports.

Public Health Law and Ethics. 3 hrs.
Introduction to the legal and ethical foundations of public health practice, including study of how individuals, practitioners, organizations and government address key issues.

QUALITY ASSURANCE (QA)

Quality Control. 3 hrs.
Application of statistical methods to quality control: process control charts and acceptance sampling plans by variables and by attributes. Process improvement techniques.

Reliability Estimation and Analysis. 3 hrs.
Failure models and distributions, graphical methods of goodness-of-fit and parameter estimation, reliability measures for components and systems, fault trees, accelerated life testing, and censoring mechanisms.

Special Topics. 1-4 hrs.
Special topics in quality assurance. (PR: Consent)

Quality Assurance. 3 hrs.
Provides a technical overview of quality assurance and managerial implications. Management of total quality systems will be stressed. Concepts from statistical process control will be introduced. Quality costs and audits.

RELIGIOUS STUDIES (RST)

Religious Thought in the Western World. 3 hrs.
An analysis of the major schools of religious thought as they have developed in the West.

Sociology of Religion. 3 hrs.
An investigation into the nature of religion as a social phenomenon.

Special Topics. 1-4 hrs.

Independent Study. 1-4 hrs.

Humanities Seminar. 3 hrs.

SAFETY TECHNOLOGY (SFT)

Traffic Law Enforcement. 3 hrs.
A course designed to study and evaluate the varied and complex system of laws governing the control of all forms of human traffic law and enforcement on present and future societies.

Introduction to Occupational Safety and Health. CR/NC. 1 hr.
Introduces students to the basic principles and emerging trends in the safety and health discipline. (All students [except safety majors] will be required to enroll.)

Problems and Practices in Traffic Safety and Driver Education. 3 hrs.
A survey course for supervisors of traffic accident prevention programs. Examines and evaluates problems, attitudes, activities, and administrative practices in school, city, and state traffic safety programs. Supplements basic teacher training courses in driver education. (PR: SFT 235 and 385)

Safety Education for Elementary Teachers. 1 hr.
Survey of accident prevention methods in the elementary school environment, with emphasis on elementary school safety curriculum, laws, personal protection and resources for elementary school teachers.
Concerned with the total Traffic Safety Management Program, including vehicle registration, driver licensing, motorcycle driver education, and other systems.

Traffic Engineering. 3 hrs.
Concerned with traffic and pedestrian flow, channelization, light coordination, intersection control, and devices as related to safe, convenient, and economical transportation of persons and goods.

International Safety and Health. 3 hrs.
The course covers the impact of globalization on worldwide safety and health programs, and a wide variety of safety and health programs for various countries and multi-national organizations.

Industrial Safety. 3 hrs.

Environmental protection as related to industrial settings. Air/water quality, noise and chemical pollution and hazardous material control.

Industrial Environmental Auditing/Programming. 2 hrs.
Concerns development of an industrial environmental protection program for a small plant, including workplace experience in sampling/measurement of contaminants. (PR: SFT 454, or 554 or 647)

Hospital Safety. 3 hrs.
The course covers the various aspects of safety and health in professional health care services.

Fundamentals of Ergonomics. 3 hrs.
Introduction to ergonomics with discussion of ergonomic issues in relevant office, industrial, and service work. Emphasis on anticipation, recognition, evaluation, and control of ergonomic stressors.

Incident Investigation Techniques. 3 hrs.
An introductory course in accident investigation designed to give insight into the recognition and collection of evidence, collection and recording data and reconstructing the accident based on the facts.

Work Environment Issues. 3 hrs.
An examination of the aspects of the work environment that can affect health: time pressure, machine pacing, control, etc. The recognition, measurement, and control of these factors will be discussed.

Advanced Occupational Ergonomics. 3 hrs.
The study and application of occupational ergonomics to the design and evaluation of various work environments. (PR: SFT 660)

Traffic Safety Management. 3 hrs.
Concerned with the total Traffic Safety Management Program, including vehicle registration, driver licensing, motorcycle driver education, and motor vehicle registration.
This course is designed to enhance student's understanding of human behavior in the context of the social environment. The course includes:

511 Foundations of Human Behavior in the Social Environment. 3 hrs.

This is the first in a sequence of two courses designed to develop the practice knowledge and skills necessary for M.S.W. students to begin:

501 Foundations of General Practice I. 3 hrs.

The course is designed to provide students with the fundamental skills to develop and implement evaluations of educational programs in the:

751 Program Evaluation. 3 hrs.

Students may apply for permission to enroll for this course with the Coordinator of Field-Based Experiences. Students must request internship from:

745 Internship in School Psychology. 1-12 hrs. CR/NC.

Assessment behavior management and consultation experiences in a school setting, supervised by a certified school psychologist for 2 days per week. (PR: SPSY 624 and SPSY 739)

739 School Psychology Practicum II. 3 hrs. CR/NC.

The second practicum in school psychology is designed to provide a structured, experiential link between intermediate coursework and practical experience.

740 School Psychology Practicum III. 3 hrs. CR/NC.

SCHOOL PSYCHOLOGY (SPSY)

523 Independent Research. 1-3 hrs.

Coursework designed to provide the student with the opportunity to work with a School Psychology program professor on a research on a research problem mutually agreed upon in terms of a specific plan of study.

601 Professional Competence I: Schools. 3 hrs.

Introduction to the roles and functions of school pupil personnel professionals, models of operation, problems, issues, and techniques. The organization and administration of school systems and philosophy of education are considered. Students may be expected to spend a minimum of one-half a day a week observing in a local school.

603 Professional Competence II: Professional School Psychology. 3 hrs.

Examination of current professional issues, theoretical model and research related to delivery of school-based psychological services. Examination of the variety of methodologies and strategies for children of diverse backgrounds and exceptionalities. (PR: SPSY 601 or concurrently with 601).

606 Adolescent Substance Abuse. 3 hrs.

Substance abuse is a pervasive problem within our society. Mental health professionals and educators require knowledge and skills in adolescent substance abuse prevention, intervention, and treatment to address this problem.

616 Typical and Atypical Child Development. 3 hrs.

Psychological development from conception with a focus on major developmental principles, issues, and concepts. An introduction to conducting research with developmental topics and experience in applying basic developmental principles to work situations will be provided.

617 Indirect Service Delivery I: School Consultation. 3 hrs.

This course is an introduction to the theory and practice of consultation and will prepare students to serve as consultants within public schools.

618 Direct Service Delivery I: Instruction Methods and Behavior Modification. 3 hrs.

This course teaches the application of behavior modification principles to the classroom setting as well as the modification of instruction to meet the needs of atypical learners.

619 Direct Service Delivery I: Individual and Group Counseling. 3 hrs.

This course is a direct interventions course focusing on individual and group therapy for children. (PR: SPSY 616 or PSY 615)

620 Indirect Service Delivery II: Primary Prevention. 3 hrs.

This course is an introduction to the science and practice of primary prevention.

621 Data-Based Decision Making I. 3 hrs.

This course is a beginning problem-solving course designed to provide students with a variety of assessment methods they can use to start constructing their professional “tool kits.”

622 Data-Based Decision Making II. 3 hrs.

This course is an intermediate problem-solving course designed to provide students with a variety of assessment measures to add to their professional “tool kits.”

624 Data-Based Decision Making III. 3 hrs.

This course is an advanced problem-solving course designed to provide students with a variety of assessment methods to add to their professional “tool kits.”

674 Biological Bases of School Psychology. 3 hrs.

SPSY 674 is a 3-credit interactive and reading intensive course that uses both live class meetings and the WebCT format to present information on the biological foundations of school psychology.

675 Cognitive and Emotional Bases of School Psychology. 3 hrs.

Theory and research findings in the process of learning, memory, attention, problem solving, decision making, concept formation and perception.

700 Special Topics. 1-6 hrs.

Courses in specialized areas of school psychology on issues in the practice of school psychology.

720 Counseling with Youth: Advanced Topics. 2 hrs.

This is a course designed to help students improve their counseling skills with youth in schools by exploring and implementing the applied practices of the major theories of psychotherapy. (PR: 619)

738 School Psychology Practicum I. 3 hrs. CR/NC.

The initial practicum in school psychology is designed to provide a structured, experiential link between early coursework and practical experience.

739 School Psychology Practicum II. 3 hrs. CR/NC.

The second practicum in school psychology is designed to provide a structured, experiential link between intermediate coursework and practical experience.

740 School Psychology Practicum III. 3 hrs. CR/NC.

Assessment behavior management and consultation experiences in a school setting, supervised by a certified school psychologist for 2 days per week. (PR: SPSY 624 and SPSY 739)

745 Internship in School Psychology. 1-12 hrs. CR/NC.

Students may apply for permission to enroll for this course with the Coordinator of Field-Based Experiences. Students must request internship from the program faculty at least one semester in advance of their starting dates. The internship requires full-time experience for one school year or one half-time experience for two consecutive school years (minimum of 1200 clock hours). Each 1 hour credit requires 100 clock hours. The internship in School Psychology requires a contractual agreement between the school system, the university, and the student that outlines the responsibilities of each party. Students will be expected to assume the roles and responsibilities of functioning school psychologists in a school. (PR: SPSY 740)

750 Ed.S. Thesis Research. 3 hrs.

Development and defense of a research proposal examining a specific hypothesis in School Psychology. Analysis of data, written presentation in thesis form, and public defense are required. (PR: 3 credit hours of 600-level statistics and approved prospectus)

751 Program Evaluation. 3 hrs.

The course is designed to provide students with the fundamental skills to develop and implement evaluations of educational programs in the classroom, school, county or state. (PR: PSY 517 and SPSY 623)

SOCIAL WORK (SWK)

501 Foundations of General Practice I. 3 hrs.

This is the first in a sequence of two courses designed to develop the practice knowledge and skills necessary for M.S.W. students to begin professional social work practice. The purpose of this course is to provide an overview of generalist practice.

511 Foundations of Human Behavior in the Social Environment. 3 hrs.

This course is designed to enhance student’s understanding of human behavior in the context of the social environment. The course includes content on theories and knowledge relative to human behavior and includes content on lifespan development, diversity and culturally sensitive social work practice, and socioeconomic and political issues related to human behavior.
Foundations of Policy. 3 hrs.
The initial focus of this course is to provide a historical overview of the development of social welfare policies and the profession of social work. The course is also designed to prepare students to systematically analyze social problems and to gain understanding of the social welfare system in the U.S. (PR: SWK 501 and 511)

Foundations of Generalist Practice II. 3 hrs.
This is the second of two courses in M.S.W. social work practice in which the purpose continues to be preparation for student for entry professional social work practice. Within this course students continue to apply principles that guide professional practice with particular emphasis placed on the micro level of practice, working with individuals and families. (PR: SWK 521)

Foundations of Research. 3 hrs.
Introduction to scientific, analytic, approach to building knowledge and skills, including: role of concepts and theory, hypothesis formulation, operationalization, research design, data collection, data processing, statistical analysis, introductory computer skills, and report writing.

Foundation of Field Practicum. 6 hrs.
This is the second of two courses in M.S.W. social work practice in which the purpose continues to be preparation for student for entry professional social work practice. Within this course students continue to apply principles that guide professional practice with particular emphasis placed on the micro level of practice, working with individuals and families. (PR: SWK 501 and 511)

Advanced Human Behavior and the Social Environment. 3 hrs.
The second course in a two-course sequence that promotes a multidimensional understanding of human functioning and behavior across systems and the life course. This course specifically examines human behavior and functioning among individuals and families. (PR: SWK 501 and 511)

Psychopathology. 3 hrs.
The purpose of this course is to provide students with a solid foundation for understanding psychopathology and provides the knowledge for psychological diagnosis in clinical social work practice (PR: SWK 501 and 511)

Integrated Health Policy and Services. 3 hrs.
The purpose of this course is to provide intensive study of the evolution of the integration of Primary Care and Behavioral Health services and to provide an opportunity for synthesis and application of learning and practice of policy in this service arena. (PR: SWK 521)

Military Mental Health and the Impact of Trauma. 3 hrs.
This course provides state-of-the-art information about problems and disorders encountered by veterans and military personnel. This includes information about the signature injuries associated with current and past conflicts, as well as information about problems encountered in family life. (PR: SWK 501 and SWK 511)

Integrated Health Care Models and Practice. 3 hrs.
This course prepares Social Workers to work collaboratively with cross disciplinary teams of providers, are prepared to work flexibly in a variety of roles and functions, and possess the necessary skills to engage with highly diverse populations.(PR: SWK 501 and SWK 511)

Advanced Clinical Social Work Practice in Behavioral Healthcare.
This course builds upon first year Human Behavior and Practice foundation courses from a trans-disciplinary perspective. The goal is to facilitate integrating this knowledge with advanced analysis of research and theory for social work practice in health care settings serving rural and underserved populations. (PR: SWK 501 and SWK 511)

Advanced Clinical Social Work Practice in Behavioral Healthcare with Groups, Communities & Organizations. 3 hrs.
Course aims at providing you with the knowledge and skills needed to diagnose (understand) community, individual, and organizational behaviors and change processes in rural and underserved areas and in cross-cultural settings as a foundation for planning culturally appropriate behavioral healthcare in the context of the ecological model of health behavior. (PR: 500-level courses and SWK 613 and SWK 633)

Advanced Social Work Research I. 3 hrs.
The purpose of this course is to introduce students to the philosophical and methodological issues of qualitative research. It will be a “hands-on” class, with a focus on practicing various methods with the goal of producing a small qualitative study. (PR: SWK 501 and SWK 511)

Advanced Social Work Research II. 3 hrs.
Program and intervention development and evaluation research in health settings; Issues and skill development in program design and methods for evaluation (PR: SWK 642)

Understanding Military Culture. 3 hrs.
The purpose of this course is to understand the military culture within which military families function, the stressors such as deployment that they navigate, and the diversity of military family structures and how a range of diversity filters can impact the military family and military culture. (PR: SWK 501 and SWK 511)

Advanced Field Practicum. 3 hrs.
Provides concentration year second semester agency-based field instruction and classroom seminar for advanced learning and practice opportunities relevant to social work. (Concurrent PR: SWK 633 and SWK 634)

Comorbidity of Mental and Physical Disorders. 3 hrs.
This course is a concentration elective course. This elective course draws from research data that explore the effects of deployment and combat stress on the physical and mental health of active duty U.S. service members and their families. (PR: SWK 634)

Advanced Theories and Practice with Children. 3 hrs.
This course builds a framework for social work interventions using nonnative developmental supports and mental health care planning. Develop advanced clinical social work practice knowledge and skills for working with children and adolescents with mental health risks and provide knowledge for community social workers serving children who are exposed to stress. (PR: SWK 634)

Family and Community Violence in Rural and Underserved Areas. 3 hrs.
This course builds a framework for social work interventions using nonnative developmental supports and mental health care planning. Develop advanced clinical social work practice knowledge and skills for working with children and adolescents with mental health risks and provide knowledge for community social workers serving children who are exposed to stress. (PR: SWK 634)

SOCILOGY (SOC)

Population and Human Ecology. 3 hrs.
The course focuses on population and its relation to characteristics of environment. Specifically, it is designed to discuss the interaction of population processes and resources.

The Family. 3 hrs.
Theoretical analysis of the family as a primary social institution.

Social Movements and Social Change. 3 hrs.
Analysis of large-scale social change, including intentional social movements and revolutions.

Criminology. 3 hrs.
An overview of sociological criminology, including an examination of explanations of criminal behavior, types of criminal activity, and an analysis of the criminal justice system.

Social Class, Power and Conflict. 3 hrs.
Theoretical analysis of economic and political inequality and the role of social conflict in the process of large-scale social organization.

294 Courses of Instruction Marshall University
525 Race and Ethnicity. 3 hrs.
Diverse theoretical approaches to the meaning of race and ethnicity and the character of racial/ethnic relations, with substantive focus primarily on the U.S.

528 Medical Sociology. 3 hrs.
Social organization of modern medicine and allied health delivery systems.

532 Sociology of Appalachia. 3 hrs.
Study of the economics, politics, and social relations of Appalachia, including contemporary debates.

533 Sociology of Work. 3 hrs.
Study of the organization and structure of the workplace as a social system; the meaning and organization of work; managerial functions; management-labor relations; and human relations in industry.

535 Juvenile Delinquency. 3 hrs.
A sociological analysis of juvenile crime, including a review of the origins of juvenile delinquency, an evaluation of causal theories, and an overview of the juvenile justice system.

540 Introduction to the Sociology of Aging. 3 hrs.
An introduction to the social processes and consequences of growing older for both the individual and society.

542 Urban Sociology. 3 hrs.
The sociology of urban and metropolitan communities.

543 Evaluation Research. 3 hrs.
Analysis and application of theories and methods for assessing the outcomes of applied organizational services and programs to affect change in people and for social conditions.

550 Sociology of Religion. 3 hrs.
An investigation into the nature of religion as a social phenomenon.

552 Sociology of Death & Dying. 3 hrs.
The study of death and dying as a societal and cultural phenomenon. Explores how institutions within our society deal with death.

555 Sociology of Sex and Gender. 3 hrs.
Analysis of social differentiation and inequality by gender, with a focus on the contemporary U.S.

560 The Holocaust and Genocide. 3 hrs.
An examination of the Holocaust and other genocides from an interdisciplinary social science perspective.

564 Complex Organizations. 3 hrs.
Analysis of complex organizations with special attention given to bureaucratic organization.

568 National Identity. 3 hrs.
Exploration of the cultural, political and economic processes that contribute to the creation and maintenance of the modern nation state as an imagined community.

570 Sociological Field Experience. 3 hrs.
Supervised field work in a social organization or community working on practical problems.

580-583 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.
Study of topics not covered in regularly scheduled courses.

585-588 Independent Study. 1 to 4 hrs.
Individual study of topics not offered in regularly scheduled courses.

600 Classical Sociological Theory. 3 hrs.
An examination of the development of sociological theory, from its Enlightenment roots through its growth in the nineteenth and twentieth centuries, including the works of Comte, Spencer, Marx, Durkheim, Weber, and Simmel.

601 Contemporary Sociological Theory. 3 hrs.
Advanced introduction to major theoretical developments and issues of significance in contemporary sociological theory, examining various theoretical perspectives at different levels of analysis and from different viewpoints.

602 Contemporary Social Change. 3 hrs.
Theories of social change and their uses in analyzing social change of today.

603-604 Behavioral Science I and II. 3; 3 hrs.
Seminar in behavioral science theory.

605 Qualitative Research Methods and Analysis. 3 hrs.
Seminar in qualitative research methods and analysis. Topics covered include coding, using qualitative software, generating theory, participating observation, intensive interview, internet inquiry, focus groups, documents, and content analysis.

606 Quantitative Research Methods and Analysis. 3 hrs.
An introduction to quantitative research methods, statistics, and the software SPSS at an intermediate to advanced level with the main focus on developing working knowledge of the methods discussed.

609 Professional Development. 3 hrs.
Career preparation for teaching, research, and non-academic settings

615 Applied Demography. 3 hrs.
The focus of this course is to study the application of the principles and methods of demography to decision making and planning problems in both public and private setting.

620 Criminology. 3 hrs.
Seminar in crime and delinquency.

640 Problems and Prospects for an Aging Society. 3 hrs.
Seminar in current and anticipated social consequences of aging for individuals and society and societal responses to this process.

645 Social Statistics II. 3 hrs.
Intermediate level statistical analysis including analysis of variance and covariance.

655 Feminist Social Theory. 3 hrs.
Diverse theoretical perspectives on the origins and nature of gender, inequality. Emphasis on contemporary debates and their political implications.

668 Seminar. 1-3 hrs.
Topics vary from semester to semester.

679 Problem Report. 1-3 hrs.
The preparation of a written report on a research problem or field study in sociology under direction of member of graduate faculty.

681 Thesis. 14 hrs. I, II, S.
Individual research in a selected field of sociology under the direction of a graduate faculty member of the department.

685 Independent Study. 1-4; 1-4; 1-4; 1-4 hrs.
Individual study of topics not offered in regularly scheduled courses.
SPANISH (SPN)

505 Pedagogy and Instructional Experience in the Middle School. 3 hrs.
Students plan and deliver beginning Spanish instruction to middle school students.

506 Composition, Conversation, and Introduction to Hispanic Literature. 3 hrs.
Continuing supervision of students’ teaching experiences. Continued attention to advanced grammar concepts, composition and conversation, and reading proficiency with an emphasis on the introduction of Hispanic literature.

510 Spanish Literature from the Cid Through the 17th Century. 3 hrs.
On demand. Readings, lectures, reports and discussions of significant literary works from the Cid through the 17th century. (PR: 6 hours of literature numbered 318 or above or equivalent)

560 The Modernist Movement. 3 hrs. S.
The precursors of the Modernist Movement, its chief exponents, and its influence on the literature of Spanish America and Spain. Readings, lectures, discussions, and reports in Spanish. (PR: 6 hours of literature numbered 318 or above or equivalent)

561 Advanced Syntax and Stylistics. 3 hrs. S.
A detailed analysis of Spanish syntax and shades of meaning with the writing of original compositions in Spanish to perfect the student’s own style. (PR: SPN 204 or equivalent)

580-583 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.

585-588 Independent Study. 1-4; 1-4; 1-4; 1-4 hrs.
Independent research in selected areas of Spanish and Spanish American literature that are not available in other courses in the catalog. The student has the opportunity to become familiar with leading authorities and bibliographies. Conferences and reports in Spanish. (PR: 6 hours of literature numbered 318 or above or equivalent and permission of instructor)

511 Literature I: Pre Modern Latin American Literatures. 3 hrs.
A study of representative Latin American literary works from the Pre-Colonial and Colonial periods and the 19th Century. Course taught in Spanish.

512 Literature II: Contemporary Latin American Literatures. 3 hrs.
A study of a selection of Latin American authors and works representative of the major literary movements in Latin America, from Modernism to present. Course taught in Spanish

Study of poetry, fiction, drama, essays, etc., in Latin America. At the discretion of the instructor literary genres will be crossed with approaches such as gender, race, religion, ethnicity, etc. Course taught in Spanish.

514 Literature I: Medvl., Rnsscn., Golden Cent. Literature. 3 hrs.
Study of the representative Spanish authors and literary works and the major intellectual movements in peninsular literature from Medieval times to Spain’s Golden Century. Course taught in Spanish.

515 Literature II: 18th and 19th Centuries. 3 hrs.
Study of the representative Spanish authors and literary works and the major intellectual movements in peninsular literature during the 18th and 19th Centuries. Course taught in Spanish.

516 Literature III: Contemporary Spanish Literature. 3 hrs.
Study of the representative authors and literary works and the major intellectual movements in peninsular literature from the Generation of 1898 to the present. Course taught in Spanish.

533 Intensive Grammar Review. 3 hrs.
This course will review and expand specific, advanced Spanish language structural points. It will include daily intensive practice in the four linguistic skills. Course taught in Spanish. (PR: SPN 315/316 or SPN 323/324 or permission)

535 Contemporary Latin American Culture. 3 hrs.
The course provides an overview of contemporary Latin American cultures. It deals with political changes, artistic movements and issues of public interest during the 20th Century. Course taught in Spanish.

536 Culture and Society in Contemporary Spain. 3 hrs.
Course based on origins of issues confronting contemporary Spain: the war’s aftermath, transition to democracy and modernization, the European Union, terrorism, regional autonomy, feminism, sexual identity. Course taught in Spanish.

544 Bilingual Contrastive Grammar. 3 hrs.
This course will compare Spanish and English grammatical structures. It will be taught in both languages to demonstrate the similarities, the differences, and intertwining relationship between them. (PR: SPN 315/316 or SPN 323/324 or permission)

610 Readings in Spanish or Spanish American Literature. 1-3 hrs.
Readings designed for the graduate student who has the interest and the ability to study in depth a certain author, genre, or literary movement. (PR: 6 hours of literature numbered 318 or above or equivalent and permission of instructor)

611 Latin American Poetry: Resistance through Verse. 3 hrs.
Course introduces students to Latin American poetry within framework of gender/genre and linguistic subversions of canonical and linguistic codes in traditionalist Western aesthetics of poetry. Course taught in Spanish. (PR: SPN 656 and graduate status).

612 Spanish-American Romanticism. 3 hrs.
Leading writers and trends in thought and versification of the romantic period. (PR: 6 hours of literature numbered 318 or above or equivalent)

613 Texts and Intertextualities in 20th Century Latin America. 3 hrs.
Overview of the various ways in which literary and non-literary Latin American texts have interacted during the 20th century. Course taught in Spanish. (PR: SPN 656 and graduate status).

614 Themes and Styles in Spanish Poetry. 3 hrs.
Survey of Spanish poetry with emphasis on the cultural and intellectual contexts in which it is produced. Poetics. Course taught in Spanish. (PR: SPN 656 and graduate status).

615 Latin American Theater: Plays, Performance and Politics. 3 hrs.
Course introduces students to Latin American theater within framework of literary and discursive subversion theater and realism. Course taught in Spanish. (PR: SPN 656 and graduate status).

616 Traditional and Innovative Forms in Spanish Prose. 3 hrs.
Development of Spanish prose. Reading of selected works by important authors. Comparison and contrast of different types of discourses. Discourse analysis and interpretation. Course taught in Spanish. (PR: SPN 656 and graduate status).

618 Society and Literature: Spanish Theater. 3 hrs.
Application of dramatic theories to samples of Spanish theater. Emphasis will be placed on the cultural contexts of the plays read. Course taught in Spanish. (PR: SPN 656 and graduate status).
620  Spanish Romanticism. 3 hrs.
The trends and characteristics of the romantic period in the writings of its leading exponents in lyric poetry, non-dramatic prose, and the theatre. (PR: 6 hours of literature numbered 318 or above or equivalent)

625  Spanish Literature of the Twentieth Century. 3 hrs.
Emphasis on prose, poetry and the theatre since 1936, including writers in exile. (PR: 6 hours of literature numbered 318 or above or equivalent)

650-653  Independent Study. 1-4 hrs.
Independent research in selected areas of Spanish or Spanish American Literature that are not available in other courses.

655  Introduction to Spanish Linguistics. 3 hrs.
General Survey of Spanish linguistics, both theoretical (phonetics, phonology, syntax, and semantics) and applied (pragmatics, discourse analysis, sociolinguistics and bilingualism). Course taught in Spanish. (PR: SPN 533 or SPN 544 and graduate status)

656  Critical Theory for Spanish/Latin American Literature. 3 hrs.
Study of the major trends in literary theory and criticism in the 20th century. Practical application of the theories to various kinds of texts written in Spanish. Course taught in Spanish. (PR: graduate status)

679  Problem Report. 1-3 hrs. (PR: Permission)

681  Thesis. 1-6 hrs. (PR: Permission)

SPECIAL EDUCATION
(See Curriculum and Instruction)

SPEECH
(See Communication Studies)

SPEECH PATHOLOGY
(See Communication Disorders)

SPORT ADMINISTRATION
(See Exercise Science and Sport)

TECHNOLOGY AND ENGINEERING (TE)

580-83  Special Topics. 1-4 hrs.
Occasional offerings of current topics in technology and engineering, providing important supplementary material for participating students.

585-88  Independent Study. 1-4 hrs.
An approved study of special interest concerning technology and engineering that is appropriate for the student’s program of study. Carried out under the supervision of a faculty member.

600  Orientation to CITE Graduate Study. 0 hrs.
Orientation course covering skills such as technical communication, quantitative reasoning, research methods, ethics and professionalism, teamwork, and discipline-specific information.

650-53  Special Topics. 1-4 hrs.
Occasional offerings of current topics in technology and engineering, providing important supplementary material for participating students.

685-88  Independent Study. 1-4 hrs.
An approved study of special interest concerning technology and engineering that is appropriate for the student’s program of study. Carried out under the supervision of a faculty member.

698  Comprehensive Project Formulation. 3 hrs. S/U.
Comprehensive project proposal is developed and approved, and work begun under supervision. Technical report writing, oral presentations, and communication skills. (PR: EM 660 and have completed min. 18 hours toward degree)

699  Comprehensive Project. 3 hrs. S/U.
Completion of comprehensive project under the supervision of a faculty member. Includes final written submittal and public oral presentation. (PR: TE 698 and have completed minimum 27 hours toward degree)

TECHNOLOGY MANAGEMENT (TM)

600  Program Introduction Seminar. 1 hr.
This course reviews fundamental mathematical and statistical methods, presentations, report writing, group project skills, and use of case studies. An orientation and overview to the degree program are also provided. (PR: Full Admission to TM program, or permission of TM Program Director)

610  Technology and Innovation Management. 3 hrs.
Provides a comprehensive introduction to technology and innovation management. Considers issues relating to international markets, innovation, and rapidly changing technology. Also covers effective organizational and managerial approach to technology. (PR: Full Admission to TM program, or permission of TM Program Director)

612  Economic and Financial Analysis for Technology Management. 3 hrs.
Tools and techniques for financial analysis, cost estimation, budgeting, and control, for technology-oriented projects and organizations. Includes financial statements, economic analysis, reporting, and life-cycle costing and control principles. (PR: CITE majors only or permission)

615  Information Technology Strategies. 3 hrs.
This course provides sound principles for managing information technology-computers and telecommunication systems - as well as the processes and procedures for applying the principles. (PR: CITE majors only or permission)

620  Technology Planning. 3 hrs.
Methods of technology planning, strategic management, and forecasting for use in technology intensive organizations are discussed, including technology life cycles and strategies for commercializing products.

630  Quality and Productivity Methods. 3 hrs.
Study of quality and productivity improvement methods with emphasis on applications to knowledge worker organizations. Examines total quality management, and personal and organizational productivity improvement processes. (PR: CITE majors only or permission)

640  Intelligent Transportation Systems. 3 hrs.
Overview of transportation telemetrics and introduction to intelligent transportation systems. Communications and computing technologies in transportation. Overview of issues: traffic safety, public transportation.
650-653 Special Topics. 1-4 hrs.
Occasional offerings of current topics in technology management, providing important supplementary material for participating students. (PR: Full Admission to TM program or permission of TM Program Director)

660 Computing and Information Systems Technologies. 3 hrs.
Provides a broad understanding of computing and information systems technologies with emphasis on development, current trends, strategic and tactical management, and legal and regulatory issues. (PR: TM 615 concurrent.)

664 Health Informatics. 3 hrs.
Introduction of various aspects of medical informatics, including medical literature search and retrieval, management and analysis of data, modeling and simulation, data communications, online databases, and clinical decision analysis. (PR: TM 615)

667 Modern Manufacturing Concepts. 3 hrs.
The course covers modern manufacturing concepts, analysis, and tools such as Just-In-Time, MRP systems, Lean Manufacturing, inventory management, total quality manufacturing, factory physics, and operating and control philosophies. (PR: TM 610 concurrent)

668 Computer Integrated Manufacturing. 3 hrs.
The course covers computer-aided design, computer-aided manufacturing, and computerized process support tools for increasing productivity in manufacturing.

685-688 Independent Study. 1-4 hrs.
An approved study of special interest concerning technology management, under the supervision of a faculty member. (PR: Full Admission to TM program, or permission of TM Program Director)

699 Capstone Project. 3 hrs. S/U.
An individualized technology management capstone project, which will be planned and carried under the supervision of a faculty member.

THEATRE (THE)

510 Playwriting. 3 hrs.
Study of dramatic structure, characterization, dialogue, themes, sounds, and spectacle, including the writing of one-act plays. (PR: THE 101 or permission of instructor.)

520 Acting for the Musical Theatre. 3 hrs.
Analysis of musical scripts; study of spoken and musical scenes; staging musical numbers; and preparation of audition material. (PR: THE 222)

521 Acting for the Camera. 3 hrs.
Projects in acting for the camera. Video taping of selected acting exercises. (PR: THE 222)

523 Stanislavsky System of Acting. 3 hrs.
Study of the Stanislavsky System of Acting and using it in preparing and performing excerpts from plays.

536 Children’s Theatre. 3 hrs.
Theory, direction, and staging of plays for children.

537 Directing I. 3 hrs.
Introduction to theories, principles, techniques, and history of directing. (PR: THE 150, 151, 152, and 222)

538 Directing II. 3 hrs.
In-depth study of directorial approaches. Analysis of contemporary movements and leaders in the field. Students must stage productions as part of class requirement. (PR: THE 537 or permission of instructor)

539 Directing for the Camera. 3 hrs.
Projects in directing for the camera. Video taping of selected directing exercises. (PR: THE 437/537 or permission of instructor)

540 Theatre History to 1660. 3 hrs.
Survey of man’s activities in the theatre from primitive times to 1660. (PR: THE 101 or permission of instructor)

541 Theatre History since 1660. 3 hrs.
Survey of man’s activities in the theatre from 1660 to the present. (PR: THE 101 or permission of instructor)

550 Stage Lighting III. 3 hrs.
Advanced study in the aesthetic principles of lighting design. Emphasis on design principles in non-proscenium theatres. (PR: THE 350)

560 Scene Design II. 3 hrs.
Advanced work in the process and styles of design for the stage. Emphasis on abstraction, different materials, and designing for various theatre forms. (PR: THE 261, 360)

580-583 Special Topics in Theatre. 1-4; 1-4; 1-4; 1-4 hrs.
Program of study not normally covered in other courses. Topics vary from semester to semester. (PR: Permission of chairman)

585-588 Independent Study. 1-4; 1-4; 1-4; 1-4 hrs.
Courses taught by tutorials; directed independent readings or research; problem reports, and other activities designed to fill the needs of individual students. (PR: Permission of chair)
Visit the Marshall University Graduate Council’s website (www.marshall.edu/graduate-council) for additional information on graduate faculty membership such as levels and expiration dates.

ACCOUNTANCY AND LEGAL ENVIRONMENT

Professor
- Cal Kent, B.A. 1963, Baylor University; M.A. 1965, Ph.D. 1967, University of Missouri

Associate Professor
- Marie Archambault, B.B.A., 1986, Saginaw Valley State College; Ph.D., 1992, Michigan State University
- Bruce Conrad, B.S. 1970, Baldwin-Wallace College; M.B.A. 1973, SUNY at Buffalo
- Ray Keener, B.S./B.A. 1979, J.D. 1982, West Virginia University; L.L.M., 1990, Georgetown University

Adjunct Faculty
- Alice W. Shumlas, B.S. 1968, West Virginia Wesleyan; M.S. 1975, Penn State University; J.D. 1989, University of Pittsburgh

ANATOMY AND PATHOLOGY

Professor
- Sasha Zill, B.A. 1966, Columbia University; Ph. D. 1979, University of Colorado

Associate Professor
- Laura Richardson, B.A. 1972, Newton College of the Sacred Heart; M.S. 1979, U. of Virginia; Ph.D. 1993, Georgetown

Assistant Professor

Adjunct Professor
- Guo-Zhang Zhu, B.S. 1992, Shanghai Medical University (China); Ph.D. 1997, Shanghai Institute of Biochemistry (China)

APPLIED SCIENCE AND TECHNOLOGY

Professor
- D. Scott Simonton, B.S. 1991, West Virginia Institute of Technology; M.S. 1997, Marshall; Ph.D. 2002, University of New Mexico
- Anthony B. Szwilski, B.Sc. 1972, U. of Nottingham, United Kingdom; M.B.A. 1986, Xavier; Ph.D. 1975, U. of Nottingham, United Kingdom

Associate Professor
- Tracy Christofero, B.S. 1984, M.S. 1986, Indiana University; Ph.D. 2005, Nova Southeastern University
- Clair J. Roudebrush, B.S. 1977, California U. of Pa.; M.S. 1980, Central Missouri State; Ph.D., Texas A&M

Assistant Professor
- James McIntosh, B.S. 1984, Fairmont State College; M.S.E. 1987; West Virginia University

Adjunct Professor
ART AND DESIGN

Professor
Jonathan Cox, B.F.A. 1972, U. of Florida; M.F.A. 1975, Rhode Island School of Design
Mary Grassell, B.F.A. 1965, Carnegie Mellon University; M.F.A. 1984, Syracuse University

Associate Professor
Maribea Barnes, B.A. 1991, Concordia College; M.A. 2003, Univ. of St. Thomas; Ph.D. 2008, Ohio State University.
Miyuki Akai Cook, B.F.A. 1997, Osaka University of Arts; M.F.A. 2006, University of Massachusetts-Dartmouth
Ian Hagarty, B.F.A. 2003, Maryland Institute, College of Art; M.F.A. 2006, Indiana University
Hayson Harrison, B.S. 1991, Virginia Commonwealth University; M.B.A., 2003 University of Richmond
Daniel Kaufmann, B.S. 1997, B.A., Florida State University; M.F.A. 2008, University of New Mexico

Assistant Professor
Frederick Bartolovic, B.F.A. 1996, University of Arizona; M.F.A. 2006, Rhode Island School of Design

BIOCHEMISTRY AND MICROBIOLOGY

Professor
Elaine Hardman, B.S. 1979, Auburn; Ph.D. 1993, U. of Texas Health Science Center, San Antonio
Susan Jackman, B.S. 1971, M.S. 1974, Marquette; Ph.D. 1984, Iowa
Richard Niles (Chair), B.A. 1968, Rhode Island College; M.S. 1970, New Hampshire; Ph.D. 1972, Massachusetts-Amherst
Donald Primmero, B.S. 1976, St. Vincent; Ph.D. 1982, Duke

Associate Professor
Pier Paolo Claudio, M.D. 1989, Ph.D. 1994, U. of Naples (Italy)
Philippe Georgel, Maitrise, 1987, University of Poitiers (France); Ph.D. 1993, Oregon State
Vincent Sollars, B.A. 1993, Ph.D. 2000, Kansas

Adjunct Professor
Simon Collier, B.Sc., 1986, University of Nottingham (U.K.); Ph.D. 1991, University of Manchester (U.K.)
Wendy Trzyna, B.Sc. 1985, Illinois State University; Ph.D. 1993, University of Wyoming

BIOLOGICAL SCIENCES

Professor
Victor Fet, B.S./M.S. 1976, University of Novosibirsk (Russia); Ph.D. 1984, Zoological Institute, Academy of Sciences, St. Petersburg (Russia)
Phillipe Georgel, Maitrise, 1987, University of Poitiers (France); Ph.D. 1993, Oregon State University
Frank S. Gilliam, B.S. 1976, Vanderbilt University; Ph.D. 1983, Duke University
David Mallory, B.S. 1980, Cornell; M.S., 1983, Maine; Ph.D., 1987, West Virginia
Frank O’Keefe, B.S. 1992, Stanford University; M.S. 1997, Ph.D. 2000, University of Chicago
Elmer M. Price, B.S. 1983, Northern Kentucky University; Ph.D. 1987, University of Cincinnati
Charles Somerville (Dean, College of Science), B.S. 1978, Penn State; Ph.D. 1990, U. of Maryland
Suzanne G. Strait, Ph.D. SUNY Stony Brook 1991
Jagan Valluri, B.S. 1981, Osmania University; M.S. 1984, Baylor University; Ph.D. 1988, Texas A&M University
Guo-Zhang Zhu, B.S. 1992, Shanghai Medical University (China); Ph.D. 1997, Shanghai Institute of Biochemistry (China)

Associate Professor
Jeffrey L. Kovatch, B.S. 1995, University of Pittsburgh; Ph.D. 2008, Syracuse University
Nicola LoCascio, B.S. 1975, Mary Washington College of the University of Virginia; Ph.D. 1984, University of North Carolina - Chapel Hill
Wendy Trzyna, B.Sc. 1985, Illinois State University; Ph.D. 1993, University of Wyoming

Assistant Professor
Brian Antonsen, B.Sc. 1992, Ph.D., 1999, University of Victoria
Jennifer Mosher, B.S. 1994, Florida Atlantic University; M.S. 2002, Youngstown State University; Ph.D. 2008, University of Alabama
Jayme Waldron, B.S. 1998, West Virginia University; M.S. 2000, Marshall University; Ph.D. 2005, Clemson University
CHEMISTRY

Professor
  Michael P. Castellani (Chair), B.S. 1982, Furman; M.S., 1983, Northwestern; Ph.D., 1986, UC-San Diego
  John L. Hubbard, B.S. 1969, North Carolina; Ph.D., 1976, Purdue

Associate Professor
  Robert Morgan, B.A. 1983, Queens College; Ph.D. 1992, City University of N.Y.

Assistant Professor
  Derrick R. J. Kolling, B.S. 1999, Pennsylvania State University; Ph.D. 2005, University of Illinois Urbana-Champaign
  Laura McCunn, B.A. 2001, Ohio Wesleyan University; M.S. 2002, Ph.D. 2005, University of Chicago
  Bin Wang, B.S. 1994, Beijing Medical University (China); M.S. 2003, National University of Singapore; Ph.D. 2004, Queen’s University (Canada)

CLASSICS

Professor
  Caroline A. Perkins, B.A. 1973, McGill University; M.A. 1975, State University of New York at Buffalo; Ph.D. 1984, The Ohio State University

Assistant Professor
  Christina Franzen, B.A. 1999, University of Georgia; M.A. 2003, University of Washington; Ph.D. 2007, University of Washington

COMMUNICATION DISORDERS

Professor

Associate Professor
  Karen McNealy (Chair), B.A. 1974, Marshall University; M.A. 1975, Tennessee; Au.D. 2009, Salus University

Assistant Professor
  Craig Coleman, B.A. 1988, M.A. 2000 University of Pittsburgh

COMMUNICATION STUDIES

Professor
  Robert Bookwalter (Dean, College of Liberal Arts), B.A. 1979, California State, Fresno; M.A. 1982, Montana; Ph.D. 1989, Kansas
  Camilla Brammer (Chair), B.S. 1979, M.A. 1982, Marshall; Ph.D., 1992, Ohio

Associate Professor

Assistant Professor

COMPUTER SCIENCE (Weisberg Division)

Professor
  Jamil Chaudri, B.Sc. (Honours)1967, Salford; M.Sc. 1970, Nottingham; Ph.D. 1982, Durham University Business School
  Venkat Gudivada, B.Tech. 1983, JNT University (India); M.S. 1986, Ph.D. 1993, University of Louisiana
Associate Professor

John Biros, B.A. 1962, M.A. 1964, Duquesne; M.S. 1993, West Virginia Graduate College  
Hyoil Han, B.S. 1984, Korea University; M.S. 1989, Korea Advanced Institute of Science and Technology; Ph.D. 2002, University of Texas at Arlington  
Jonathan Thompson, B.S. 1977, Massachusetts Institute of Technology; B.S. 2009 (Physics), M.S. 2001, Marshall University  
Paulus Wahjudi, B.S., M.S., Ph.D., University of Southern Mississippi

COUNSELING

Professor

Donald Hall, B.A. 1971, Marshall; M.A. 1972, Eastern Kentucky University; Ed.D. 1978, University of Virginia  

Associate Professor

Lisa Burton, B.S. 1990, West Virginia University; M.A. 1993, West Virginia Graduate College; Ph.D. 2008, Capella University  
Lori Ellison, B.A. 1985, Baylor University; M.A. and MA. 1990, Southwestern Baptist Theological Seminary; Ph.D. 2007, Texas A&M University-Commerce.  
Jeff Garrett, B.A. 1986, David Lipscomb University; M.A. 1993, Marshall University; Ph.D. 2004, Ohio University  

Assistant Professor

Andrew Burck, B.A. 1998 Mercyhurst, College; M.Ed. 2001, Kent State University; Ph.D. 2006, The University of Toledo  
Jonathan Lent, B. S. 2005, M. Ed. 2007 California University of Pennsylvania; Ph.D. 2010, The University of Akron

CRIMINAL JUSTICE AND CRIMINOLOGY

Professor

Dhruba J. Bora, B.A. 1991, Marshall University; M.S. 1992, Eastern Kentucky University; Ph.D. 2003, Indiana University of Pennsylvania  
Margaret Phipps Brown, B.A. 1976, West Virginia Wesleyan; J.D. 1979, Emory  
Samuel L. Dameron, A.B. 1973, Ohio; M.S. 1978, Eastern Kentucky State; Ph.D. 1987, Sam Houston State  

Assistant Professor

Whitney A. Flesher, B.A. 2008, Samford University; M.S. 2010, University of Cincinnati

DIETETICS

Professor

Kelli J. Williams (Chair), B.S. 1995 Lipscomb University, M.A. 1997, Marshall University; Ph.D. 2006, The Ohio State University

EARLY CHILDHOOD EDUCATION

Professor

Mary Jo Graham, B.S. 1966, Michigan State University; M.A. 1970, Kent State University; Ph.D. 1997, Ohio University  
Mary Mhango, B.S. 1974, University of Missouri; M.A. 1985, Mount Saint Vincent University; Ph.D. 2006, Iowa State University  
Bizunesh Wubie, B.A. 1978, Addis Ababa University; M.E. 1993, Ph.D. 2001, University of Toronto
ELEMENTARY & SECONDARY EDUCATION

Professor

Sandra S. Bailey, B.S. 1971, Bluefield State; M.A. 1985, WV Graduate College; Ed.D. 1988, West Virginia
Lisa A. Heaton (Program Director), B.S. 1992, Bethel College; M.Ed. 1995, Ph.D. 1999, University of Virginia

Associate Professor

Michael Corrigan, B.A. 1989, Bowling Green State University; M.A. 2001, West Virginia University;
Linda Spatig, B.S. 1971, Barton College; M.Ed. 1974, Western Washington State; Ed.D. 1986, Houston

Assistant Professor

University of Louisiana Monroe

ENGINEERING (Weisberg Division)

Professor

Wael Zatar (Dean, CITE), B.S. 1990, Cairo University, M.S. 1994, Cairo University, D.Eng. 1999, Saitama University
Andrew P. Nichols, B.S.C.E. 2000, West Virginia University; M.S. 2001, Purdue University; Ph.D. 2004, Purdue University
Ashad Salem (Chair), B.S. 1983, University of Mississippi, M.S., 1989, Tennessee State University, Ph.D. 1996, University
of Akron

Associate Professor


ENGLISH

Professor

Timothy Burbery, B.A. 1985, Claremont McKenna; Ph.D. 1997, SUNY Stony Brook
Jane Hill (Chair), B.A. 1972, M.A. 1978, Clemson; Ph.D. 1985, Illinois Urbana-Champaign
Edmund Taft, B.A. 1970, Duke University; M.A. 1977, University of Rhode Island; Ph.D. 1983, Penn State
John Van Kirk, B.A. 1976, Webster; M.F.A. 1991, Univ. of Maryland
Anthony Viola, B.A. 1994, East Stroudsburg University; M.A. 1998, University of North Dakota; Ph.D. 2003, Ohio
University

Associate Professor

Roxanne Aftanas, B.A. 1997, M.A. 2000, Arkansas Little Rock; Ph.D. 1995, Texas Woman’s University
Rachael Peckham, B.A. 2002, Hope College; M.F.A. 2004, Georgia College and SU; Ph.D. 2009, Ohio University
Kelli Prejean, B.A. 1998, Nicholls State University; M.A. 2001, University of Southern Mississippi; Ph.D. 2005, University
of Louisville
Hyo-Chang Hong, B.A. 1995, Yeung-Nam University (Korea); M.A. 1997, Ph.D. 2002, Ball State

Assistant Professor

Hilary Brewster, B.A. 2001, Muhlenberg College; M.S. 2003, University of Pennsylvania; Ph.D. 2013, The Ohio State
University

(continued)
Kristen Lillvis, B.A. 2004, Baldwin-Wallace College, M.A. 2006, Ohio University; Ph.D. 2011, University of Kansas
Carrie Oeding, B.A. 2000, University of Minnesota; MFA 2002, Eastern Washington University; Ph.D. 2007, Ohio University
Joel Peckham, B.A. 1992, Middlebury College; M.A. 1994, Baylor University; Ph.D. 1999, University of Nebraska-Lincoln
Eric Smith, B.A. 2004, University of West Georgia; M.A. 2007, Northern Michigan University; M.F.A. 2009, University of Florida
Walter Squire, B.F.A. 1989, Bowling Green State University; M.A. 1993, Kansas State University; Ph.D. 2001, University of Tennessee

FINANCE AND ECONOMICS

Professor
Richard Agesa, B.A. 1984, University of Poona (India); M.A. 1986, Gokhale Institute of Politics and Economics (India); Ph.D. 1996, University of Wisconsin-Milwaukee
Dallas Brozik, B.A. 1972, Coe College; M.B.A. 1980, Lewis University; Ph.D. 1984, South Carolina
Lawrence P. Shao, B.B.A. 1980, M.B.A. 1982, Old Dominion University; Ph.D. 1989, University of Tennessee

Associate Professor
Shaorong Zhang, B.A. 1989, Xiamen University; M.B.A. 1998, University of New Orleans; Ph.D. 2004, University of Missouri

Assistant Professor
Yuanyuan (Catherine) Chen, Bachelor of Economics 2006, Wuhan University (China); M.A. 2009, Ph.D. 2012, Middle Tennessee State University
Mohammad Karim, B.B.A. 1998, University of Chittagong (Bangladesh); M.B.A. 2008, Ball State University; Ph.D. 2012, University of Texas at El Paso

FORENSIC SCIENCE

Professor
Pamela Staton, B.S. 1975, Morehead State University; M.S. 1978, West Virginia University; Ph.D. 2003, Marshall University

Assistant Professor

Adjunct Professor
Kelly Beatty, B.S. 1998, West Liberty State College; M.S. 2000, Marshall University
Nadine Borovich, B.S. 2004, West Virginia Wesleyan College; M.S. 2006, Marshall University
David Castle, B.A. 1991, Marshall University
Chris Chiles, B.A. 1977, University of Tennessee; J.D. 1980, West Virginia University
Jason M. Chute, B.S. 1998, West Virginia; M.S. 2000, Marshall University
Amanda Hoffman, B.S. Waynesburg University, M.S. 2010, Marshall University
Laura Kuyper, B.S. 1995, Kentucky Wesleyan College; M.S. 1999, Marshall University
Ian Levstein, B.Ed. 1983, University of Windsor; M.S. 2001, Marshall University
Thomas Rushton, B.A. 1985, Vanderbilt, M.D. 1989, South Florida
Joseph Russo, B.S./B.A., Bloomsburg University of Pa.; M.S. 2011, Marshall University
John Sammons, R.B.A. 1989; Marshall; M.S. 2008, Mountain State University
Christopher Vance, B.S. 2009, Marshall University
GEOGRAPHY

Professor

Joshua Hagen (Chair), B.A. 1997, University of Northern Iowa; M.S. 1998, Ph.D., 2003, University of Wisconsin-Madison

Associate Professor

Anita Walz, M.S. 1993, Oregon State University; M.S. equivalent (1994), Universitaet Konstanz (Germany); Ph.D. 2002, University of Maryland

Assistant Professor

Godwin Djietror, B.A. 1991, University of Ghana; M.A. 1997, University of Toledo; Ph.D. 2003 McMaster University

GEOLOGY

Professor


Associate Professor

Aley K. El-Shazly, B.Sc. 1983, University of Alexandria (Egypt); M.S. 1987, Ph.D. 1991, Stanford University

HISTORY

Professor

David Mills, B.A. 1990, University of Kansas; M.A. 1993, Ph.D. 1997, University of Utah
William G. Palmer, B.S. 1973, Iowa State University; Ph.D. 1981, University of Maine

Associate Professor

Kevin Barksdale, B.A. 1995, Winthrop University; Ph.D. 2005, West Virginia University
Daniel Holbrook (Chair), B.A. 1986, Brandeis University; M.S. 1994, Ph.D. 1999, Carnegie Mellon University
Margaret Rensenbrink, B.A. 1993, University of Massachusetts; Ph.D. 2003, The University of Chicago
Phillip Rutherford, B.A. 1987, University of Southern Maine; Ph.D. 2001, Penn State University
Anara Tabyshalieva, M.A. 1979, Ph.D. 1985, Kyrgyz National University; M.A. 2003, Johns Hopkins University
David Trowbridge, B.A. 2000, M.A. 2003, Emporia State University; Ph.D. 2008, University of Kansas
Christopher White, B.A. 2001, Humboldt State University; Ph.D. 2005, University of Kansas
Kat D. Williams, B.A. 1988, M.A., 1994, University of Louisville; Ph.D. 2001, Kentucky

Assistant Professor

Robert Deal, B.A. 1980, M.A. 1985, Syracuse University; J.D. 1987, Villanova University; Ph.D. 2010 Temple University

Adjunct Professor

Nathaniel DeBruin, B.A. 1976, Texas A&M University; M.L.S. 1996, University of Maryland – College Park

HUMANITIES

Professor

Frances Simone, B.A. 1964, Queens College of CUNY; M.Ed. 1967, U. of Florida; Ph.D. 1974, Duke

Adjunct Professor

Robert D. Sawrey, B.A. 1970, South Dakota; M.A. 1971, Ph.D. 1979, Cincinnati

INTEGRATED SCIENCE AND TECHNOLOGY

Professor

Menashi Cohenford, B.S. 1976, Rhode Island College; Ph.D. 1982, University of Rhode Island

Associate Professor

Thomas G. Jones, B.A. 1990 M.S. 1992, Marshall University; PhD 1997, University of Louisville

Assistant Professor

Min Kook Kim, B.A. 2000, Chung-Ang University; M.A. 2002, Seoul National University; M.U.P. 2005, State University of New York at Buffalo; Ph.D. 2010, University of Maine
JOURNALISM AND MASS COMMUNICATIONS

Professor


Burnis Morris, B.A., 1982, University of Mississippi; M.P.A., University of Dayton, 1977

Associate Professor

Janet Dooley (Associate Dean, College of Arts and Media; Director, W. Page Pitt School of Journalism and Mass Communications), B. A. 1973, Marshall; M. S. 1974, University of Tennessee at Knoxville

Allyson Goodman, B.A., 1982, Marshall University; M.S., 1985, Shippensburg University

Terry Hapney, B.A., 1994, University of Kentucky; M.A., 1997, Marshall University; Ph.D. 2012, University of Dayton

Christine Ingersoll, B.A., 1994, Hamilton College; M.A. 1997, Syracuse University; 2008 M.F.A., Stephen F. Austin State University


Robert Rabe, B.A. 1992, University of Nebraska: M.A. 2002, Ph.D. 2013, University of Wisconsin


KINESIOLOGY

Professor

Jennifer Y. Mak, B.A. 1995, Hong Kong Baptist University; M.S. 1998, Ph.D. 2000, Indiana

Gary McIlvain (Chair), B.S. 1993, Lipscomb University; M.S. 1999, Middle Tennessee State University; Ed.D. 2008, University of Kentucky

Associate Professor

Gregg Twietmeyer, B.A. 1997, Concordia University; M.A. 2003, University of Michigan; Ph.D. 2008, Penn State University

Assistant Professor

Suzanne M. Konz, B.S. 1994, Iowa Wesleyan College; M.S. 1995, Indiana University; Ph.D. 2006, Brigham Young University

LEADERSHIP STUDIES

Professor

Dennis M. Anderson (Distinguished Professor of Education), B.S. 1964, Florida State; M.A. 1965, M.A. 1971, Appalachian State; Ed.D. 1975, Virginia Tech


Michael L. Cunningham (Program Director), B.S. 1972, West Virginia; M.A. 1977, West Virginia College of Graduate Studies; Ed.D. 1996, West Virginia


Linda Spatig, B.S. 1971, Barton College; M.Ed. 1974, Ed.D. 1986, University of Houston


Associate Professor

Louis Watts, B.A. 1971, Harding University; M.A. 1978, West Virginia College of Graduate Studies; Ed.D. 1997, West Virginia University

Assistant Professor

Tom Hisiro, B.S., California University of Pennsylvania; M.Ed. 1977, Shippensburg University of Pennsylvania; Ed.D. 2000, University of Pittsburgh


Professor Emeritus


LITERACY EDUCATION

Professor


Barbara O’Byrne (Program Director), Certificate in Secondary Education, 1979, McGill; M.A. 1981, Concordia College; Ph.D. 1995, U. of Toronto

Terrence Stange, B.S. 1975, M.S. 1981, Northern State University; Ph.D. 1993, University of Oklahoma
Associate Professor


Assistant Professor


Professor Emeritus


MANAGEMENT, MARKETING AND MANAGEMENT INFORMATION SYSTEMS

Professor


Deanna Mader (Senior Associate Dean, College of Business), B.A. 1975, M.A. 1978, Western Kentucky University; Ph.D. 1984, University of Georgia

Marjorie McInerney (Associate Dean, College of Business), B.S.B.A. 1975, University of Akron; M.B.A. 1977, Marshall; Ph.D. 1983, Ohio State


Uday Tate, B.A., M.B.A. 1967, Univ. of Baroda; M.B.A. 1974, Western Illinois; D.B.A. 1983, Tennessee

Associate Professor

Alberto Coustasse, M.D. 1992, M.B.A. 1994, Pontifical Catholic University of Chile; M.P.H. 1999, Dr.P.H. 2004, University of North Texas at Fort Worth

Doohee Lee, B.P.A. 1991, Soougsü1 University; M.A. 1994, Wichita State University; Ph.D. ,M.P.H. 1999, The University of Texas School of Public Health


Assistant Professor

Frank Bosco, B.A. 2003, University of Connecticut; M.S. 2005, Montana State University; Ph.D. 2011, University of Memphis

Anil Gurung, B.A. 1992, Tribhuvan University; M.B.A. 2001, Missouri State University; Ph.D. 2006, University of Texas

Ivan S. Muslin, B.A. 1997, Northeastern Illinois University; M.A. 2004, Nova Southeastern University; Ph.D. 2010, University of Texas


Adjunct Professor

Mary Emmett, B.S. 1969, Marquette University; M.S.S. 1981, University of South Dakota; Ph.D. 1991, University of Iowa

Kathryn Newcome, B.S. 1980, West Virginia University; C.R.N.A. 1996, CAMC School of Nurse Anesthesia; M.S. 1996, West Virginia Graduate College; D.M.P.N.A. 2007, Marshall University

Joe Price, B.A.B.A. 1967, Nichols College (Dudley, Mass.); J.D. 1978, West Virginia University


MATHEMATICS

Professor


Alfred Akinsete (Chair), B.Sc. 1980; M.Sc., 1983; Ph.D., 1996, University of Ibadan (Nigeria)

Ariyadasa Aluthge, B.S. 1981, Kelaniya, Sri Lanka; M.S. 1985, Ottawa; Ph.D., 1990, Vanderbilt


John Drost, B.S. 1978, Florida International; Ph.D. 1983, Miami

Bonita Lawrence, B.A. 1979, Cameron; M.S. 1990, Auburn; Ph.D. 1994, U. of Texas, Arlington


(continued)
Evelyn Pupplo-Cody, B.S. 1973, St. Joseph’s College (Brooklyn, N.Y.); M.A. 1977, SUNY at Albany; Ph.D. 1992, University of Kentucky
Scott Sarra, B.S. 1993, Shepherd College; M.S. 1995, Ph.D. 2002, West Virginia University
Peter Saveliev, Diploma 1987, Moscow State University (Russia); Ph.D. 1999, U. of Illinois

Associate Professor
Basant Karna, B.Sc., M.Sc. 1997, Tribhuvan University (Nepal); Graduate Diploma 1999, International Center for Theoretical Physics; Ph.D. 2004, Baylor University
Anna Mummert, B.A. 2000, SUNY at Geneseo; Ph.D. 2006, Pennsylvania State University
Carl Mummert, B.S. 2000, Western Carolina University, Ph.D. 2005, Pennsylvania State University

Assistant Professor
Avishek Mallick, B.S. 2002, M.S. 2004, University of Calcutta; M.S. 2006, Ph.D. 2010, University of Louisiana at Lafayette
Elizabeth Niese, B.S. 2001 Virginia Tech; M.S. 2003 University of Central Florida; Ph.D. 2010 Virginia Tech
Michael W. Schroeder, B.S. 2003, M.S. 2005, University of Florida; Ph.D. 2011, University of Wisconsin-Madison

MODERN LANGUAGES

Professor
Carlos M. Lopez, M.A. 1976, Instituto Alfredo Vázquez Acevedo; Ph.D. 1995, Ohio State

Associate Professor
María Rosario Quintana Villamandos, M.A. 1991, Ph.D. 2006, Universidad Complutense de Madrid (Spain)

MUSIC

Professor
Ann Marie Bingham, B.S. 1978, University of Tennessee; M.M. 1984, Eastern Kentucky University; M.M. 1994, Marshall; D.M.A. 1990, University of Kentucky
Edwin Bingham, B.M. 1976, Tennessee; M.M. 1978, Juillard; D.M.A. 1988, Kentucky
David Castleberry (Associate Dean, College of Arts and Media), B.A. 1978, Furman University; M.A. 1980, D.M.A. 1992, University of Texas at Austin
Solen Dikener, B.M. 1986, Hacettepe University; M.M. 1990, Conservatoire National de Nice (France); M.M. 1993, Louisiana State University; D.M.A. 2000, Michigan State University
Elizabeth Reed Smith, B.M., 1979, Eastman School of Music; M.M. 1981, Yale; D.M.A. 1983, Eastman School of Music
Vicki P. Strocher, B.M., B.M.E. 1981, Southwestern; Ph.D. 1994, North Texas

Associate Professor
Julio Alves, B.M. 1995, University of Brasilia; M.M. 1999, The Peabody Conservatory of the Johns Hopkins University; D.M. 2012, Indiana University
Martin Saunders, B.M.E. 1992, Winthrop University; M.M. 1996, Wright State University; D.M.A. 2008, University of Oklahoma

Adjunct Professor

NURSING

Professor
Rebecca Appleton, B.S.N. 1983 Ohio State , M.S. 1987 Ohio State, Ph.D. 1995, University of Utah
Diana Stotts, B.S.N. 1974, U. of Kentucky; M.S.N., 1981, University of Texas Health Science Center; Ph.D. 1990, University of Texas

Associate Professor
Paula Reilly, B.S.N. 1981, West Liberty State College; M.S.N. 1985, West Virginia University; M.B.A. 1993, University of Charleston; Ph.D. 1993, University of Texas at Austin
Susan Welch, B.S.N. 1980, Capital University; M.S. 1990, The Ohio State University; Ph.D. 2012, West Virginia University
PHARMACOLOGY, PHYSIOLOGY, AND TOXICOLOGY

Professor
- Carl A. Gruetter, B.S. 1972, Pennsylvania State; Ph.D. 1978, Tulane
- William D. McCumbee, B.S. 1965, St. Edwards University; M.A. 1967, Sam Houston State; Ph.D. 1977, U. of Houston
- Gary O. Rankin (Chair), B.S. 1972, Arkansas-Little Rock; Ph.D. 1976, Mississippi
- Nalini Santanam, B.Sc. 1984, Meenakshi College for Women (Madras, India); M.P.H., 2004, Emory; Ph.D. 1992, Christian Medical College & Hospital (Vellore, India)

Associate Professor
- Piyali Dasgupta, M.S. Indian Institute of Technology, New Delhi; Ph.D. 1999, National Institute of Immunology, New Delhi
- Todd Green, B.S. 1978, Florida State; Ph.D. 1986, Virginia
- Jung Han Kim, B.S. 1985, M.S. 1987, Dongduk Women's University (South Korea); Ph.D. 1996, Tennessee

Assistant Professor
- Travis Salisbury, B.S. 1997, Ph.D. 2003, Kent State

Adjunct Professor
- Brian Antonsen, B.Sc. 1992, Ph.D., 1999, University of Victoria
- Eric Blough, B.S. 1990, Michigan Technological University; M.S. 1992, Southern Illinois; Ph.D. 1997, Ohio State
- Robert Harris, B.S. 1985, Marshall; Ph.D. 1992, Ohio U.
- Peter Harvison, B.S. 1977, Carnegie Mellon University; Ph.D. 1983, SUNY Buffalo

PHILOSOPHY

Professor
- John N. Vielkind (Chair), B.A. 1967, St. Mary's; M.A. 1970, Ph.D. 1974, Duquesne

PHYSICAL THERAPY

Professor
- Penny Kroll, B.S. 1975, Louisiana State University; M.A. 1982, Ph.D. 1988, New York University

Assistant Professor
- Yi-Po Chiu, B.S. 1995, National Cheng Kung University (Taiwan); M.H.S. 2001, Ph.D. 2007, University of Florida

PHYSICS AND PHYSICAL SCIENCE

Professor
- Ralph E. Oberly, B.S. 1963, Ph.D. 1970, Ohio State

Associate Professor
- Maria Babiuc, M.S. 1991, Ph.D. 2000, University of Iasi, Romania
- Xiaojuan Fan, B.S. 1986, M.S. 1989, Anhui University of China; Ph.D. 1999, University of Science & Technology of China
- Huong Nguyen (Chair), B.S. 1981, M.S. 1989 Kishinev State University (Moldavia, formerly USSR); Ph.D. 2001 City University of New York

POLITICAL SCIENCE

Professor
- Robert Behrman, B.A. 1967, DePauw University; Ph.D. 1986, Indiana University
- Cheryl Brown (Associate Dean, College of Liberal Arts), B.S. 1987, M.P.H. 1990, Columbus College; Ph.D. 1997, Georgia State

(continued)
**Psychology**

Professor

Marc A. Lindberg, B.A. 1971, Minnesota; M.A. 1973, Ph.D. 1976, Ohio State
Steven Mewaldt, B.A. 1969, Cornell; M.A. 1972, Ph.D. 1975, Iowa
Pamela Mulder, B.A. 1978, Whittier College; M.A. 1985, California State, Fresno; Ph.D. 1991, California School of Professional Psychology

Associate Professor

April Fugett, B.A. 2002, M.A. 2004, Morehead State University; Ph.D. 2008, University of Kansas
Thomas Linz, B.A. 1982, M.A. 1983, West Georgia College; Ph.D. 1988, University of Georgia

Assistant Professor

Tony Goudy, B.A. 1985, M.S. 1988, West Virginia; Ph.D. 1994, Penn State
Dawn Howerton, B.A. 2004, M.A. 2007, California State University; Ph.D. 2011, University of Tennessee

**School Psychology**

Associate Professor

Sandra Stroebel (Associate Dean, College of Education and Professional Development), B.A. 1982, Asbury College; M.A. 1986, Ph.D. 1988, University of South Carolina

**Sociology and Anthropology**

Professor

Martin Laubach (Chair), B.S. 1978, M.A. 1999, Ph.D. 2002, Indiana University
Frederick P. Roth, B.A. 1968, The College of William and Mary; M.A. 1985, Rutgers University; Ph.D. 2001, University of Connecticut

Associate Professor


**Special Education**

Professor

Robert Angel, B.S. 1969, Queens College; M.S. 1972, Long Island University; Ph.D. 1977, University of Arizona

Assistant Professor

Jane Bogan, B.S.Ed. 1997, Bowling Green State University; M.Ed. 2003, Ph.D. 2007, University of Virginia
Lori Howard, B.A. 1982, University of the Pacific; M.A. 1985, University of Northern Colorado; Ph.D. 2001, University of Virginia
Marshall University Academic Calendar for 2015-2016

FIRST SEMESTER 2015-2016

August 14, Friday .......................................................................................................................... End of summer school
August 17, Monday - August 21, Friday ......................................................................................... Registration/Schedule Adjustment
August 19, Wednesday, 9 a.m. ....................................................................................................... Residence Halls Open for Freshmen
August 20, Thursday - August 21, Friday ...................................................................................... Week of Welcome for freshmen
August 22, Saturday, 9 a.m. ............................................................................................................ Residence halls open for upperclassmen
August 24, Monday, 8 a.m. ............................................................................................................. First day of classes
August 24, Monday - August 28, Friday ......................................................................................... Late registration/schedule adjustment (add-drop)
August 28, Friday .......................................................................................................................... Last day to add a class
August 31, Monday ........................................................................................................................ “W” Withdrawal period begins
September 5, Saturday - September 7, Monday ............................................................................... University computing services unavailable
September 7, Monday .................................................................................................................. Labor Day Holiday: University Closed
September 18, Friday .................................................................................................................... Application for December graduation due in academic dean’s office
September 25, Friday .................................................................................................................... Last Day to Drop 1st 8 Weeks Courses
October 5, Monday ......................................................................................................................... Final draft of thesis/dissertation delivered to committee chair
October 12, Monday ...................................................................................................................... Mid-Term, 1st 8 weeks courses end
October 13, Tuesday ...................................................................................................................... 2nd 8 weeks courses begin
October 15, Thursday, Noon .......................................................................................................... Freshmen/Sophomore midterm grades due
October 26, Monday ...................................................................................................................... Students should schedule appointments with advisors to prepare for advance registration. (Required for students who have mandatory advising holds)

October 30, Friday .......................................................................................................................... Last day to drop a full semester individual course
November 2, Monday ...................................................................................................................... Recommended date to apply for May graduation
November 2, Monday - December 6, Friday ..................................................................................... Complete withdrawals only
November 9, Monday - November 20, Friday .................................................................................... Advance registration for spring semester (open only to currently enrolled students)

November 13, Friday ...................................................................................................................... Last day to drop 2nd 8 weeks courses
November 21, Saturday, Noon ...................................................................................................... Residence halls close
November 23 - Monday ..................................................................................................................... Advance registration for spring semester (open to admitted and readmitted students)
November 23, Monday - November 28, Saturday ............................................................................ Thanksgiving Break

November 26, Thursday - November 27, Friday ............................................................................. Thanksgiving Holiday

November 29, Sunday, 9 a.m. ........................................................................................................... Residence halls closed
November 30, Monday ................................................................................................................... Classes resume
November 30, Monday - December 4, Friday ................................................................................... “Dead week”
December 4, Friday ........................................................................................................................ Last class day; Last day to completely withdraw from fall semester
December 5, Saturday .................................................................................................................... Exam day for Saturday classes, Some common finals
December 7, Monday ...................................................................................................................... Exam day
December 8, Tuesday ..................................................................................................................... Exam day

(continued)
December 9, Wednesday .................................................................................................................................................................................. Study Day

December 10, Thursday .................................................................................................................................................................................. Exam Day

December 10, Thursday .................................................................................................................................................................................. Approved Thesis/Dissertation must be submitted to the EDT website

December 11, Friday ................................................................................................................................................................................... Exam day

December 12, Saturday, TBD ........................................................................................................................................................................ Winter Commencement, Big Sandy Superstore Arena

December 13, Sunday, Noon ........................................................................................................................................................................ Residence halls close

December 14, Monday, Noon ........................................................................................................................................................................ Final Grades due

December 22, Tuesday, 5 p.m. ........................................................................................................................................................................ University Closes

December 23, Wednesday - January 1, Friday ........................................................................................................................................ Winter break, University closed

December 29, Tuesday - December 30, Wednesday .............................................................................................................................. Student Service Offices Open 10:00 a.m. - 4:00 p.m.

(SECOND SEMESTER 2015-2016)

January 4, 2016, Monday ............................................................................................................................................................................... University reopens

January 4, Monday - January 8, Friday ............................................................................................................................................................ Registration/Schedule adjustments

January 10, Sunday, 9 a.m. ............................................................................................................................................................................ Residence halls open

January 11, Monday, 8 a.m. ........................................................................................................................................................................ First Day of Classes

January 11, Monday - January 15, Friday .................................................................................................................................................. Late registration/schedule adjustment (add-drop)

January 15, Friday ................................................................................................................................................................................... Last day to add a class

January 18, Monday .................................................................................................................................................................................. Martin Luther King, Jr. Holiday - University closed

January 19, Tuesday .................................................................................................................................................................................. “W” Withdrawal period begins

February 5, Friday .................................................................................................................................................................................. Applications for May graduation due in dean’s office

February 12, Friday .................................................................................................................................................................................. Last day to drop 1st eight weeks courses

February 22, Monday .................................................................................................................................................................................. Final draft of thesis/dissertation delivered to committee chair

March 2, Wednesday .................................................................................................................................................................................. Midterm, 1st 8 weeks courses end

March 3, Thursday .................................................................................................................................................................................. 2nd 8 weeks courses begin

March 7, Monday, Noon ........................................................................................................................................................................ Freshman/Sophomore mid-term grades due

March 14, Monday .................................................................................................................................................................................. Students should schedule appointments with advisors to prepare for advance registration for summer and fall.

(March 19, Wednesday - December 30, Wednesday - University closed)

March 18, Friday .................................................................................................................................................................................. Last day to drop an individual course

March 19, Saturday, Noon ........................................................................................................................................................................ Residence halls close

March 21, Monday - March 26, Saturday .................................................................................................................................................. Spring Break

March 21, Monday - April 29, Friday .......................................................................................................................................................... Complete withdrawals only

March 27, Sunday, 9 a.m. ............................................................................................................................................................................ Residence halls reopen

March 28, Monday .................................................................................................................................................................................. Classes resume

March 28, Monday .................................................................................................................................................................................. Recommended date to apply for December 2016 graduation

March 28, Monday - April 1, Friday .......................................................................................................................................................... Advance registration for summer sessions (open only to currently enrolled students)

April 4, Monday .................................................................................................................................................................................. Advance registration for summer sessions begin (open to admitted/readmitted students)

April 11, Monday - April 22, Friday .......................................................................................................................................................... Advance registration for fall semester (open only to currently enrolled students)

April 12, Tuesday .................................................................................................................................................................................................. Last day to drop a 2nd 8 weeks courses

April 25, Monday .................................................................................................................................................................................................. Advance registration for fall semester begins (open to admitted/readmitted students except first-time fall undergraduates)

April 25, Monday - April 29, Friday .......................................................................................................................................................... “Dead Week”

April 29, Friday .................................................................................................................................................................................................. Last class day

April 30, Saturday .................................................................................................................................................................................................. Exam day for Saturday classes

Some common finals

May 2, Monday .................................................................................................................................................................................................. Exam Day

May 3, Tuesday .................................................................................................................................................................................................. Exam Day

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Academic Calendar

Marshall University
May 4, Wednesday..................................................................................................................................................................................................................... Study Day
Exams resume at 3 p.m. for Wednesday evening classes

May 5, Thursday..................................................................................................................................................................................................................... Exam Day

May 5, Thursday ................................................................................................................................................................................................................. Approved Thesis/Dissertation must be submitted to the EDT website
Electronic Thesis and Dissertation form and graduation fee receipt submitted to the Graduate College Office

May 6, Friday ....................................................................................................................................................................................................................... Exam Day

May 7, Saturday, TBD at Big Sandy Superstore Arena .................................................................................................................................................. Commencement

May 8, Sunday, Noon........................................................................................................................................................................................................ Residence halls close

May 10, Tuesday, Noon..................................................................................................................................................................................................... Final Grades due

SUMMER SESSIONS 2016

May 9, Monday -- August 12, Friday ................................................................................................................................................................................................... Summer School Sessions

May 28, Saturday -- May 30, Monday ........................................................................................................................................................................... University Computer Services Unavailable

May 30, Monday .................................................................................................................................................................................................................... Memorial Day Holiday
University closed

July 4, Monday..................................................................................................................................................................................................................... Independence Day Holiday
University closed
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